

Kinship and the New Genetic Technologies: An Assessment of Existing Anthropological Research

A Report compiled for the Commission of the European
Communities
Medical Research Division (DG-XII)
Human Genome Analysis Programme

Ethical, Social and Legal Aspects of Human Genome
Analysis
No. P L 91 01 041

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*KINSHIP AND THE NEW GENETIC TECHNOLOGIES:
AN ASSESSMENT OF EXISTING ANTHROPOLOGICAL RESEARCH*

1.1 While genetic sciences and technology have developed rapidly in recent years, investigation of the social, ethical and legal dimensions of these developments have been less vigorously pursued. Considerable public concern now surrounds the subject of human genome research, resulting in the recommendation that such studies be undertaken as part of the European Human Genome Analysis Programme (hereafter HGAP).

1.2 The study described here was concerned with identifying one area of the social aspects of human genome analysis: the place where knowledge about the transmission of characteristics interacts with definitions of the constitution of ties between persons. Anthropologists demarcate the area as *kinship*. This is distinct from family, which within anthropology would be considered a particular type of kinship formation. Apart from the particularity of their formation, kinship ties form a domain of their own, concerning relationships formed through procreation (involving shared bodily substance, known as consanguinity) or marriage (known as affinity).

1.3 In modern European society, knowledge about transmission of characteristics is taken to be knowledge about the natural facts of life (biology), so that kin relations are seen as based in *natural* processes. What people do with these natural facts in terms of kin obligation, family formation, and so forth, is held to be a matter of *social* (pertaining to relationships) or *cultural* (pertaining to ideas and values) fact. From the comparative perspective of cross-cultural analysis, the relationship between natural and social/ cultural facts itself appears as a 'cultural' construction. Of interest for this *Report* is the further fact that this construction is of foundational significance in much European thought.

1.4 The reason for focussing on kinship may thus be stated simply. Given the foundational importance of ideas about genetic connection to the construction of kin relations in modern European society, decisions and procedures concerning the former are bound to have implications for the latter. The latter in turn will become a significant filter through which the former become culturally recognised. The study of kinship within anthropology not only concerns the variation characterising definitions of kinship ties in the sphere of social relations: it also concerns the constitution and evaluation of these ties as a means of

1.5 The present study responded to the need to assess the potential of kinship research in relation to the social implications of HGAP in diverse countries of Europe. As an initial, preliminary study, it undertook to evaluate the existing empirical basis of such potential. In turn, this *Report* provides an initial assessment of the broad patterns characterising the study of kinship in Europe; an analysis of these materials in relation to the questions raised by the HGAP; and suggestions concerning future research in this area, including an assessment of the feasibility and desirability of a coordinated anthropological research exercise in Europe addressed to these concerns.

1.6 The *Report* is divided into three main sections. In the first section, the aims and method of the study are described, and the study of European kinship is introduced through a discussion of the database production and its contents. The results of the assessment of existing anthropological knowledge on kinship in Europe are presented at the end of this section. The second section builds on these conclusions through a discussion of the relevance of this material to the specific concerns raised by the HGAP. In the third section, an attempt is made to present a preliminary framework for future research in this area, and to introduce key terms and concepts relevant to this approach. The *Report* concludes by recommending how future studies might proceed along these lines.

SECTION ONE: CONSTRUCTING A DATABASE; FINDINGS AND CONTENTS

1.1.1 Like the modern genetic sciences, anthropology has one of its diSCiplinary backgrounds in the study of genealogy. Whereas the modern genetic sciences concern the biological dimensions of human inheritance and descent, anthropological study concerns their social and cultural dimensions.!

1.1.2 In this *Report*, anthropology will mean what is called *social* (sometimes cultural) *anthropology*, and thus contributes to a social science perspective.

1.1.3 Public understanding of genetic, as other scientific matters, is mediated through cultural values, and thus the meanings ascribed to facts. In the context of rapid scientific innovation in the field of New Genetic Technologies (hereafter NGTs), new meanings of

1 Whereas anthropologists agree about the variability of cultural forms of kinship, theoretical contention surrounds the manner of their foundation. The question turns on the significance of procreation as a fact of life (as the foundational process to which all kinship systems ultimately refer), as opposed to the reproduction of persons through various processes including feeding, nurture, exchange, mortuary rituals and various other practices (which mayor may not refer to procreation *per se*).

relatedness, new dimensions of kinship, and new sources of potential conflict between kin have already aroused public concern. Anthropology offers tools and methods for interpreting the cultural basis of public concern in this arena of social change related to the HGAP.

1.1.4 As distinct from studies of the family, kinship studies address (among other things) the meanings attached to shared bodily substance. One object that demands study is *the meaning of a 'blood' tie in the constitution of relationships*. It is for this reason that the NGTs can be understood as having particularly important implications for how people think about kin-based relationships. Likewise, it is for this reason that kinship constitutes a primary domain of social impact and public concern arising from NGTs.

1.1.5 In the context of European societies, however, there remain many unknowns regarding the manner in which new genetic information affects the perceptions of kin relations, and regarding the already existing model of genetic connection through which new information is filtered. A systematic appraisal of existing anthropological knowledge on kinship in Europe comprises one way of addressing these important concerns.

1.2.1 The initial impetus to evaluate existing expertise reported here has focussed on *the anthropological study of kinship in Europe*. As the domain of human social relations derivative of concepts of shared bodily substance, inheritance and regeneration, kinship is an integral component in any account of social change affecting these relationships. However, until this study was undertaken, no attempt had been made to bring together already existing knowledge or to assess the *applicability* of such knowledge to the above concerns.

1.2.2 The feasibility of an integrated European initiative, aimed at providing a specifically anthropological contribution, entailed an evaluative study in the first instance. This *Report* therefore addresses the basis for:

- (a) the potential coordination of existing research;
- (b) its relevance to the social implications of NGTs;
- (c) the feasibility of the 'European Community' as a comparative frame of reference.

It is by so doing that this study has aimed to contribute to the formulation of social science approaches to the questions posed by NRTs.

- (a) conducted a preliminary evaluative study of existing anthropological research on kinship in the European Community;
- (b) identified sources of anthropological expertise concerning the social and cultural implications of NGTs;
- (c) evaluated the feasibility of 'the European Community' as a cross-cultural comparative framework for an integrated exercise.

1.3.1 Within social anthropology, kinship is not seen as a set of immutable biogenetic facts, but as a system of cultural knowledge through which social practices are realised. The question of kinship within social anthropology therefore turns on the question of how *ideas of relatedness are culturally constructed*. In European societies, the relations which are considered kinship are generally considered to be those derived through, or modelled on, marriage and procreation, and comprising those through which inheritance and descent are reckoned.

1.3.2 In defining kinship, Europeans place foundational importance on the relationship between natural and social facts. *However, these are by no means the only basis for constructs of relatedness*, as the ethnographic documentation of European kinship systems demonstrates.

1.3.3 The study of marriage systems, including both fields of relations established through the prohibition of ties based on consanguinity (incest) and affinal relations of marriage (alliance), comprises a major strand of theoretical interest within anthropology. This has been most notably as a result of the influential work of Levi-Strauss, who sought to establish a universal basis for the analysis of human cultural systems (structuralism), and to verify a single hypothesis connecting the origins of marriage and the incest taboo (see Heritier, 1981).

1.3.4 Another major strand of theoretical interest within kinship studies concerns patterns of inheritance. Within anthropology, considerable debate in the past has occasioned the question of the extent to which kinship systems derive their sociological importance from their role in structuring inheritance patterns. In the European context, a significant conjuncture between anthropology and social history has resulted in a large body of research investigating changing family formations over time, often through the use of genealogical records (Laslett & Wall, 1972). These studies, frequently based on the analysis of rural,

peasant societies² and tied to broad theses concerning patterns of historical change, comprise a large area of research in which kinship has a particular meaning and importance (see Goody, 1983; Segalen, 1986, 1991).

1.3.5 In addition to ties through procreation, ties through marriage and patterns of inheritance, the study of kinship within anthropology also concerns a wide range of so-called 'fictive' kinship practices. On the one hand there are types of honorary, spiritual or ceremonial kinship (e.g. the *compadrazgo*) as well as practices of fostering and adoption. On the other hand, there are numerous practices related to friendship and support networks, in which the establishment of reciprocal ties and obligations creates a kinship network of sorts. These ties may imitate or complement consanguinal relationships.

1.3.6 Finally, relations built on kinship may also be seen as those involving residence and household composition, reciprocal ties of mutual support and obligation concerned with nurture, child-rearing, and other, often domestically-related activities through which recognised definitions of closeness and distance are established (see Finch, 1989).

1.3.7 An important component of such studies is the emphasis upon the range of kinship practices which may affect an individual over the lifecourse. Kinship studies thus comprise both a major area of study within anthropology, and a significant point of conjuncture between anthropology and other disciplines, most notably in the European context with sociologists, historians and demographers. Quite a wide range of behaviour may be classed as kinship or kinship-related activity, and several schools of thought have historically cohered around specific questions concerning kinship as a cultural idiom and as a mode of social organisation.

1.4.1 Although the study of kinship is central to the discipline of social anthropology, neither the study of European societies in general, nor of European kinship systems in particular, have figured prominently within the discipline. It is only in the latter half of this century that ethnographic studies of the social relations of kinship and the cultural values ascribed to them in modern European societies have begun to appear, and only in the past two decades that they have begun to gather momentum. Several factors account for this pattern, which deserve brief mention here.

² A minor tradition of urban kinship studies also deserves mention here, see Firth, Hubert & Forge, 1969; Harris, 1970; Wallman, 1984.

1.4.2 The importance of kinship within anthropology can be seen to be in approximate proportion to its significance within the societies studied by anthropologists. In the late 19th century, when anthropology began to emerge as a discipline,³ much attention was focussed on social formations in which kinship was seen as a primary institution providing the organisational structures of social and political life. This pattern continued as anthropology expanded, with the consequence that the study of kinship remained central to those theoretical concerns focussed on social organisation, most notably in the British functionalist and structural-functionalist traditions.

1.4.3 An increase in attention to the cultures of modern industrialised nations accompanied the growing European interest in American cultural anthropology. Consequently, theoretical interest in kinship in terms of social structure began to diminish somewhat, although the influence of structuralism remained strong, and continues to hold great sway in the French traditions.

1.4.4 Several factors today indicate a renewed interest in kinship in Europe. One is the recognition that although as social institutions kinship systems may not have the same prominence in Europe as they do in societies organised into corporate descent groups, they are nonetheless integral to cultural identities. Indeed, as recent studies indicate, their importance has probably been underestimated (see Bestard-Camps, 1991; Strathern, 1992a).

1.4.5 Alongside a renewed interest in kinship is also evident a surge in anthropological activity within Europe. This is most readily evident in the recent formation of the European Association of Social Anthropologists, founded in 1990, and already comprising over 2000 members across Europe.⁴ The rapid emergence of this professional association, coupled with a considerable interest in European societies among both European and non-European (e.g. American) anthropologists, constitutes a major development within the discipline of social anthropology.

1.4.6 For historical reasons, the field of social anthropology within Europe remains disproportionately influenced by the French and British traditions. This study likewise

³ See Hodgen, (1964) for an account of a much earlier origin of anthropology in the sixteenth and seventeenth centuries; for our purposes here we refer to its emergence as a modern discipline of social science.

⁴The *EASA Register* 1992, ed. Husmann & Husmann, 1992 has a complete list of members. The EASA Newsletter gives regular accounts of the current state of social anthropology in various parts of Europe.

incorporates a bias towards these traditions, due in part to the predominance of English language reference materials. 5

1.4.7 In sum, kinship was most theoretically important to anthropology when the societies of Europe were most neglected. Notwithstanding numerous significant exceptions, the broad pattern characterising mid-twentieth century anthropology was a non-European focus and a predominant concern with Third World societies. As the study of contemporary European culture began to emerge as a field in its own right, the theoretical importance of kinship studies within anthropology had already begun to wane. Recently, various shifts have resulted in a more favourable context for European kinship studies.

1.5.1 Although for all of the reasons outlined above, kinship has not been as widely studied in Europe as in many other parts of the world, this project identified a substantial body of literature addressing a wide range of kinship phenomena across Europe. Indeed, on the basis of only a preliminary indication, it could be confidently claimed that an unexpectedly large and coherent body of scholarship has existed on this topic for some time. It simply has not had the same theoretical visibility as other concerns within the discipline. Various approaches were employed to assess the amount and content of social anthropological studies of kinship in Europe. The resultant database is thus a composite of different types of information.

1.5.2 The Database. Entitled *Social Anthropological Research on Kinship in Europe*, the database is alphabetically ordered by author and cross-referenced by region and subject. Under separate headings will be found (1) relevant (but not specific to Europe) anthropological debates concerning kinship, and (2) anthropological studies directly addressing new reproductive technologies (of which there are at present only very few, see below note 12). Certain special categories of research (e.g. cross-cultural European kinship comparisons) are also highlighted in the database, which is itself indexically coded for ease of use.

1.5.3 Appended to the database are a series of tables indicating the distribution of European social anthropologists in terms of regional location and subject areas. This includes an indication of the number of European anthropologists presently researching European cultures, where they are located, and which cultures they are researching.⁶

SJ:t should also be noted that we have not included Scandinavian materials within the present study, and that the significant anthropological literature on these areas would usefully be appended to the database.

1.5.4 Different bibliographic methods were employed to create the database. In the first instance, large scale computerised data retrieval methods were employed. The study found the following Online Search Services to offer the most comprehensive coverage of the anthropological study of kinship in Europe:

- (a) Sociological Abstracts
- (b) ASSIA (Applied Social Science Abstracts)
- (c) FRANCIS (French Language Social Science Abstracts)

1.5.5 Online data search facilities, whilst comprising the most efficient data retrieval systems for surveying large areas of scholarly publication, are limited by several factors. For the present study, these systems proved ineffectual due to the specialised nature of the research focus. Several obstacles beset this method of data retrieval, most notably the following:

- (a) inadequate ability to manipulate data search parameters; 7 (b) in particular, poor capacity to discriminate geographically; 8
- (c) uneven comprehensiveness of the database in which anthropological studies were underrepresented;
- (d) inability of the available search parameter commands to distinguish effectively between family and kinship studies.⁹

1.5.6 Although numerous references were located using this method of data retrieval, significant shortcomings characterised the computerised bibliographic approach. 10

1.5.7 The bulk of the bibliographic exercise therefore involved a manual survey of European ethnographic and anthropological publications, including scholarly journals. Through these means an extensive reference base has been established.

6 Although the database also contains studies of European societies by non-European anthropologists, a comprehensive account of such studies, in particular those conducted by North American anthropologists, was beyond the scope of the present exercise.

7 See Appendices to Database for a description of the search parameters utilised for each online data retrieval exercise.

8 For example, many references to European nations or languages (e.g. 'Britain' or 'French') will, unless programmed with a cumbersome set of counter-parameters (e.g. 'n-ritain' *but not* 'New Britain', etc.) produce large amounts of non-European material.

9 This proved a particularly problematic obstacle due to the enormous literature on the family as compared to the more specialised literature on kinship.

10 This finding underscored the need for a more systematic indexing of European anthropological research to be developed, a point which is also discussed further below.

1.5.8 Nonetheless, our approach was also limited by various factors, most notably by access to materials in countries where anthropology is not widely represented as an academic discipline. In these cases, consultation either with anthropologists within those countries, or whose research interests concerned them, was pursued.

1.5.9 In addition to a bibliographic search, the attempt to collect and evaluate anthropological studies of kinship in Europe was facilitated through personal visits to researchers in various parts of the European community. It was found that personal contact with researchers in this field constituted an essential means of locating and assessing relevant materials, particularly those of recent completion, and ongoing research initiatives. In addition, such visits proved invaluable in the effort to contextualise various scholarly debates and publications within the specific intellectual traditions characterising different European countries. 1 1

1.5.10 Lastly, a meeting organised to discuss 'Anthropology and the New Genetic Technologies' was organised at the EASA meetings in Prague (August, 1992), where it was possible to present initial findings of the study for feedback from other European colleagues. Ongoing professional cooperation on the specific topic of anthropology and the new genetic technologies was made possible by the formation of an informal network of interested colleagues (see Appendix 1, Table 1).

1.6.1 What the survey did not find were either very many anthropological studies addressing the new reproductive¹² or genetic technologies¹³ *per se*, or very many cross cultural comparative studies of concepts of procreation within Europe. However, the existing ethnographic literature does contain a substantial amount of material on concepts of kin relationships within particular European societies. Indeed, both the bibliographic search and the input from colleagues working in this field revealed a wide variety of kinship studies conducted by social anthropologists within Europe. Not only across Europe,

11 For a discussion of problems of comparison within the European frame, see Segalen, 1991; Bahloul, 1991.

12At present, the only ethnographically based social anthropological study of the new reproductive technologies in Europe seems to be that by the Manchester based research team of which the authors were part (see Edwards, et al, 1993, but see also Strathern, 1992b). For additional references, see database.

13No studies by European anthropologists were found addressing the new genetic technologies, although some studies of this sort have been conducted by American anthropologists (see Rapp, 1990; Rabinow, 1992).

but within specific regions, and even in the same societies, a profusion of diverse kinship practices have been documented by anthropologists. Some general comments on these studies are presented in Section Two.

1.6.2 The database is to be regarded as a *preliminary indication* of the *type* of information anthropological study may usefully contribute to the evaluation of the social and ethical implications of the HGAP. It is not exhaustive of the range of studies of European societies which might yield such information.

SECTION TWO: AN INITIAL ASSESSMENT OF KINSHIP PATTERNS IN EUROPE

2.1.1 Our concern in Section One was to present the aims, findings and analysis of the process of compiling a database on European kinship studies within social anthropology. In this section, a brief discussion of certain broad themes and patterns characterising European kinship is presented, although the scope of such a task clearly requires ongoing development and cooperation. By necessity, our discussion here must be considered both preliminary and rudimentary, representing the beginnings of a more substantial assessment, rather than in any sense a final account.

2.1.2 Rather than present a broad overview, we have instead chosen to focus on those themes most relevant to the context of the present enquiry. Hence, although much can be seen to have been left out of our discussion, we are enabled to give more adequate elucidation to those aspects of European kinship which appear of most immediate relevance to discussions of relatedness in the context of the HGAP. These implications are discussed in the Section Three.

2.2.1 Despite the diversity represented within existing studies of kinship in Europe, two broad patterns can be discerned across the European frame: that *kin reckoning is bilateral*, and that *blood is the main idiom of shared bodily substance*.

2.2.2 Bilateral or cognatic kinship systems are defined by a dual tracing of descent through both the mother's and the father's side. This is, of course, the system of kin reckoning familiar to most Europeans. The system with which it is usually contrasted is based on a unilateral reckoning of relations, as exemplified by patrilineal or matrilineal descent

systems, creating agnatic or uterine kin groups ('unilineal descent groups') as a consequence. It is the absence of unilineal descent systems, and of corporate kin groups of the kind described in the literature for Africa and Oceania, that is a characteristic of the European kinship pattern.¹⁴

2.2.3 Blood is a ubiquitous and overdetermined cultural idiom in Europe. In addition to being a very ancient component of key cultural formations to do with concepts of spiritual and corporeal *personhood*, it is a widely embedded one, central to the scriptures of the early church, to Roman and Teutonic law and to a range of other foundational and historic traditions grounding contemporary European societies. An example of the characteristic significance of blood in relation to kinship is provided by Ley ton in his study of an Irish village: 'A man's "blood", the physical and moral qualities of his ancestors, gives him the prestige he will bear as a child.... The significance of *the one blood* is a consequence of the villager's beliefs that biological reproduction transmits not only physical characteristics, but also personality and worth. It follows from this that a man *is* his ancestors' (Ley ton, 1975:20).

2.2.4 In the context of European kinship, blood is the main contemporary idiom of *relatedness via procreation*. Through blood is expressed a complex cultural knowledge of origins, descent, inheritance and degrees of relatedness. Such knowledge is both essential to individual identity, and fundamental to understandings of inheritance and descent, as well as being the basis for a range of social institutions and practices, now and in the past.

2.2.5 The combination of a blood idiom which connects descent to procreation and a bilateral reckoning system which traces kinship equally from both parents is of particular significance in relation to the questions raised by the HGAP. What is striking is, of course, the apparent similarity between the model of inheritance described by blood-bilateralism and that described by biogenetics. The cognatic model of shared bodily substance emphasising equal and impartible links through procreation to both parental lines provides the basis on which knowledge about genes represented by scientific discourse can appear to be about 'kinship'. We will return to this similarity in Section Three.

2.2.6 However, it is extremely important to note that while a general pattern of bilateral descent based on an idiom of blood ties is evident across Europe, this is (a) enormously diverse in its expression, and (b) cross-cut, mediated and filtered by numerous other kinship

¹⁴The terminology of kinship analysis is used varyingly in different parts of Europe. Although corporate descent groups of the kind documented in the anthropological literature on Africa and elsewhere in the world do not appear in Europe, discussions of lineal affiliation of a corporate nature are introduced in some of the literature on Southern Europe (Bestard-Camps, 1991; Serematakis, 1991) and in the Balkan states (Hammel, 1988).

practices. The latter may *also regarded as part of the natural order* of events (especially practices based on ideas about growth, nurture, parental care), or be considered of a different order altogether, such as in definitions of relatedness based on law or divine sanction.

2.3.1 In addition to being contextualised by non-blood based definitions of relatedness, blood is itself a source of diverse kinship reckonings, especially in the Mediterranean regions. For example, Du Boulay (1984) documents two contrasting models of the blood tie in contemporary Greece (Ambeli), each of which constitutes a different set of kin and invokes a different set of principles of relatedness. In addition to reckoning kinship by blood in terms of descent from a common ancestor (*katakorifo*) and to collaterals (*plai*), an indigenous concept of the blood tie also renders it affinally (through marriage) through the image of the *zinari*, a ceremonial belt, which, in a metaphorical sense, expresses the need for the blood to be renewed through outmarriage.

2.3.2 As opposed to the use of blood in the constitution of agnatic kin groups, such as in the blood brotherhoods of various societies, where the ceremonial exchange of blood is seen to create a kinship tie, the Ambeli concept of blood expressed through *zinari* denotes a different concept of blood and of blood relatedness altogether: 'it is the common stock, and not the several individual stocks, which is thought of as being renewed by crossing' (Du Boulay, 1984:539).

2.3.3 Such regional variations in the representation of relationships through blood are further distinguished by contrast with numerous modes of creating 'kin' through other criteria, such as the (aforementioned) *compadrazgo*, characteristic of many Catholic regions of Southern and Central (Eastern) Europe (see Davis, 1977). In this system of ceremonial baptism, or marriage sponsorship, the acquisition of a godparent resembles a conjugal union insofar as it is formally conducted under similar religious conditions (in a church and in view of God), and because it is often aimed at securing an alliance between groups, as well as providing a sponsor or patron for the individual (see Campbell, 1964). Hence, much of the anthropological literature on this form of kinship has concentrated on its political significance, although what is also of interest here is the marriage prohibition which attends this ceremonial form of kinship. In other words, the tie between families established by the *compadrazgo* creates an alternative, additional 'incest' taboo between families to that of consanguinity (relatedness by blood) reckoned by descent and through procreation.

2.3.4 These examples demonstrate the multiplicity of idioms through which both blood and non-blood relatedness are expressed. What is recognised as a 'kin' connection in one system of reckoning, or in one society, may not be recognised as such in others. In other words, the prevailing theme of recognising bilateral ties of descent through procreation, expressed as a naturalised idiom of shared bodily substance (blood), must be located in the context of the multiple and often contradictory kin reckoning systems with which it is intertwined. Importantly, these several means of kin reckoning not only create *connections* between persons, but are also the basis for establishing *disconnections*, or distance from persons to whom one is potentially seen to be related.

2.4.1 Incest proscriptions based on degrees of blood-relatedness found throughout Europe are an example of the disconnection associated with kinship systems of this sort. Unlike those unilateral descent systems which produce group boundaries by a rule of outmarriage (exogamy), bilateral kinship systems open up an infinite universe of potential kinship, in which 'everyone' is eventually 'related' by consanguinity. (The complexity of canonical restrictions governing acceptable degrees of relatedness for marriage to occur may, for example, derive in part from the 'rimless wheel' effect of bilateralism, see Appendix 2).

2.4.2 It is for this reason that it has been continuously pointed out by anthropologists studying the blood-based bilateral kinship systems of Europe that these systems not only create connections but (due to the unbounded scope of potential interconnectedness) also require means of producing *disconnections*. There are numerous ways in which this dual process of connection and disconnection can be seen to occur.

2.4.3 The means through which individuals discriminate amongst consanguines is therefore the focus of a considerable literature, particularly in the British Isles (see Cohen, 1982). The importance of distinctions between 'close' and 'distant' kin, or 'effective' and 'ineffective' relatives, and the role of individuals in negotiating these degrees of distance and proximity has been stressed. Strathern expresses this as a fundamental opposition within the cultural values ascribed to English kinship: on the one hand are a set of *a priori* ascriptions, on the other exists a measure of individual choice (1981).

2.4.4 In Northern Europe, honorary kinship institutions such as the *compadrazgo* are less pronounced, as is the degree of familism, and it is the nuclear family which is more often encountered as the dominant kinship ethos. Consequently, the negotiation of the meanings of *family* or *relatives* takes on particular importance in the determination of degrees of proximity and distance. As Firth, Hubert and Forge point out, in one of the few

ethnographic attempts specifically aimed to document patterns kinship in a European society, "'family" is not simply a term of demarcation of certain categories of kin. It tends to be a term of affective significance ... a mode of classifying people not so much by degrees of consanguinity and affinity as by the affective quality of their relation to Ego' (1969, 92).¹⁵

2.4.5 In contrast, the term 'relative' is more likely to be used, according to Firth, et al, to describe a consanguine, and 'my relations' tended to mean 'blood relations'. (A similarity of usage in German, '*Eine Verwandte*', a kinswoman, and also Dutch, '*Verwant*', as well as French, '*parent*' is also notable, but see note 11 above on the matter of misleading verisimilitudes).

2.4.6 The embeddedness of blood-based kinship ties within other mechanisms for defining relatedness; the necessity for systems of disconnection to curtail the unlimited kin universe produced by bilateralism; and the active selection and negotiation of kin definition and degrees of acknowledged proximity by individual social agents or groups are among the well-documented mechanisms through which a potentially endless number of 'relations' are delimited in social practice. The mechanisms by which the kinship universes of individuals are extended, altered, restricted and otherwise manipulated comprise innumerable variations in social practice.

2.4.7 It should be emphasised that the perspective offered from social anthropology affirms repeatedly and across a wide range of contexts that the definition and recognition of kin is *selective*. Far from formulaic, despite the existence of complex, formal systems of rules and prohibitions, it is the focus of concerted activity. As kinship definitions and practices are worked through in the context of other social divisions, most notably those of class and gender, their instrumentalisation by individual actors constitutes a significant locus of social and cultural reproduction.

- Within Europe there exist a wide range of kinship practices through which formal and informal definitions of relatedness are established.

¹⁵ For the American counterpart to this study, which remains one of the most influential studies of kinship in western, industrialised cultures, see Schneider, 1968. For a more recent analysis of both studies, see Strathern, 1992a.

- Broadly speaking, most European societies subscribe to a similar mode of reckoning kinship. This can be described as bilateral in so far as the tracing of ties of procreative substance to the mother's and father's side is equally stressed.

- These ties through procreation to the parents are ubiquitously expressed and represented through an idiom of blood.

- Yet, these generalities concerning kin recognition in Europe must be situated in relation to both the variety of definitions of blood, and the range of other formal and informal kinship systems which work to complement and contradict them.

- *We would expect that the possibilities opened up by new genetic knowledge will have a specific impact on understandings of kin connection and on practices of disconnection.*

2.5.2 Concerning kinship as an object of anthropological study, we would add the following points:

- Kinship does not exist as a set of immutable facts of relatedness, but as a system of cultural knowledge, which is variously instrumentalised, and through which 'relations' are both produced and dissolved by both individuals and groups.

- Several kinds of relatedness can be described as kinship, including kin acquired through birth; kin acquired or chosen through marriage; kin acquired or chosen through honorary/ceremonial kinship institutions; kin ties that are voluntarily developed through other forms of solidarity and exchange, including: shared residence; friendship networks; mutual support and/ or nurture; patronage; alliance; and co-operation.

2.6.1 One of the main conclusions to be drawn in the face of the tremendous diversity of European kinship systems documented within the anthropological literature is that there are often several overlapping systems at work in each specific cultural context. Hence, blood-based bilateral reckoning is cross-cut by other modes of defining relatedness which are *employed selectively* in the establishment of kinship ties.

2.6.2 Secondly, within each particular set of kinship practices are often contradictory elements at work. Hence, against the potentially endless number of consanguines produced by the open-ended system of bilateral kin recognition are operative a number of mechanisms for selection, including 'genealogical amnesia' (the tendency for recollection of certain 'kin' to 'fade away').

2.6.3 In sum, while blood-based bilateral kin reckoning remains foundational, it is necessary to observe the numerous and often contradictory components effecting kin recognition in any particular context.

2.7.1 It is hoped the advent of greater cooperation amongst European anthropologists will provide the basis for more thorough consolidation of existing ethnographic documentation of European cultures. *It was a significant discovery by the present researchers that no such index or directory appears to exist in the public domain.* Any scholar seeking to maximise the utility of the extensive documentation contained within ethnographic studies of European cultures is without even the most rudimentary guide as to their whereabouts and contents.¹⁶

2.7.2 While the reference base established for the purposes of the present study comprises a substantial data set, it is by no means a complete record, and it is hoped that continuing cooperation beyond the formal termination of this study will increase its contents and utility. Circulation of the Report and of the database is intended to begin to facilitate cooperation of this sort.

2.7.3 By so doing, it is also hoped a more concerted degree of theoretical attention will be brought to bear on the study of European kinship within social anthropology. The documentation of the extent of already-existing scholarship on this topic in and of itself will act as a catalyst to this effect; and, in conjunction with other ongoing cooperative undertakings, is expected to instigate further enquiries.

2.8.1 Both the database described in this *Report*, and the analysis of its contents presented here will form the basis for scholarly publications and other professional presentations by

¹⁶ A partial exception to this finding is the existence of an index to European societies comprising part of the Human Relations Area Files (Pittsburgh, P A). However, this is not an up-to-date source, and is of non-European origin.

the authors. Panel discussions of these issues are the basis for an Associate Section at the Decennial conference of the British Association of Social Anthropologists (Oxford, July 1993), and plans are underway for a similar workshop at the American Anthropological Association meetings (Washington, DC, November 1993). A preliminary meeting of European Social Anthropologists held at the second meeting of the Association in Prague (August, 1992) has provided an initial basis for anthropological cooperation specifically concerning kinship in the context of the new genetic technologies [see Appendix 1].

SECTION THREE: KINSHIP IN THE CONTEXT OF THE NEW GENETIC TECHNOLOGIES

3.1.1 In this section, further discussion of the findings is presented with a view to examining their direct relevance to the social, legal and ethical implications of the HGAP. Consideration of the implications of new genetic technologies for understandings of kinship are presented, which in turn form the basis for a number of preliminary questions intended to suggest avenues of future anthropological enquiry in this field of cultural practice.

3.1.2 A specific focus of this section will concern the *apparent similarity* between the model of inheritance, descent and relatedness characteristic of the general *European kinship pattern* (blood-based bilateralism) and that described within the *science of biogenetics* [see 2.2.5]. In both cases, 'ties' based on shared bodily substance are 'traced' through procreation. By assimilation to the cultural understandings of kinship, the biological ties are axiomatically described in the idiom of parentage. Thus, egg and sperm are taken as representing the 'mother's' and 'father's' side. This similarity has consequences for peoples' understandings and must be examined.

3.2 New genetic technologies may be thought of as new means of *representing* kinship: they offer new information about relatedness. If science endorses a popular understanding of parentage as axiomatically consequent upon the biological process of procreation, popular understandings of parentage assume the biological process as a fundamental (but not exclusive) base.

3.2.1 A direct consequence of this could be described as a *literalisation of blood ties* in the context of new genetic technologies. For example, DNA fingerprinting may appear only to reconfirm what was already commonsense. The difference it makes lies in its capacity to enable a literalisation of *genetic ties* as the basis of relatedness: to make what was already

known visible through new technology. Visually, these technologies represent individual DNA as a bar code. Forensically, the bar code represents individual uniqueness. Culturally, the question is one of how new facts of relatedness are being produced and consumed through new practices of identification.

3.2.2 The use of new genetic technologies in the context of medical treatment is already recognised to give rise to potential sources of conflict between kin. For example, in its *Report* to the British Government, published in January 1992, the Committee on the Ethics of Gene Therapy claimed that:

The duty of confidentiality [to the patient) is by no means absolute; it is balanced by a duty of disclosure. The tension is heightened when the special qualities of genes and genetic events give rise to different, and possibly conflicting, interests of kindred, including those yet unborn, who share, or might share, the same genes. For example, an individual might be the source of genetic information which is important to relatives. It might be important to their health care, decisions on parenthood, or life plans which might be influenced by known health risks. Conversely, information which is important to a particular individual might only be obtainable from relatives. (*Report of the Committee on the Ethics of Gene Therapy*, Cm 1788, 1992:16)

Kin are defined here in terms of *genetic 'relatedness'*: it is 'the special qualities of genes and genetic events' which are seen 'to give rise to different, and possibly conflicting, interests of kindred'¹⁷, who are defined as those who 'share, or might share, the same genes'.

3.2.3 NGTs therefore introduce a *selective method of kin recognition*. It is by virtue of representing relatedness in terms of the *genetic tie* as the basis for connections that a particular domain of social and cultural implications may be identified. What is also recognised in this context is the potential for relatedness, so literalised, to be a source of dispute.

3.2.4 Yet, as the blood tie is a *selective* mechanism of kin recognition, which is mediated both by other practices of kin recognition, and by selection mechanisms internal to them (such as selective genealogical tracing or memory), so too must it be expected that the

¹⁷In anthropology, 'kindred' is a technical term used of certain types of bilateral (cognatic) kin formation.

geneticisation of relatedness will be actively mediated by other kin definition mechanisms.

3.2.5 It is here anthropological accounts of kinship, and in particular of the meaning of a blood tie, provide an empirical basis for understanding the processes of kin definition and recognition at work in the context of NGTs.

3.3 A *parallelliteralisation* process may also be seen in such a context. It is suggested that the literalisation of the blood tie, rendered in the authoritative discourse of science as the genetic tie, is paralleled by the literalisation of non-genetic ties through which genetically-unrelated persons seek to be defined as kin.

3.3.1 An exemplary context for the counter-literalisation process of non-genetically related persons seeking to have their social ties either validated as kinship links, or disguised as such (and genetically-defined kin seeking to prohibit a kin-based connection) is presented by gamete donation. Here a significant tension exists between the desire (a), to promote and to protect the function and integrity of the conjugal nuclear family (a married couple and their children) and (b), the argument for the right of the individual to know his or her genetic origins for the purpose of both medical and marital decisionmaking. On the one hand, the anonymity of the donor, and the ability of the so-called 'social father' (the mother's husband) to register his name on the birth certificate has been advocated and or legalised in several European countries. On the other hand, the degree of information it is necessary to keep on a register of donors, the conditions of access to this information, and the morality of denying donor-children access to knowledge of their 'genetic identity' continue to be debated.

3.3.2 This now commonplace situation demonstrates a *significant connection between ideas of blood as shared bodily substance and ideas of genes*. As blood is a selectively recognised idiom of relatedness (and operates regardless of whether or not a biological tie exists), so too is already the case with genes. A degree of recognition of the 'fact' of genetic connection is widely accepted and acknowledged. Yet, equally apparent is the perceived necessity for this information to be controlled, and to be selectively revealed due to its potentially disruptive consequences.

3.3.3 If, as appears likely, the members of European cultures base their knowledge of genes in part on what is already known about blood ties, this knowledge will be of blood as a source of disconnection as well as of connection; as a source of dissonance as well as solidarity; and as an idiom that is realised in the social context of often competing and contradictory interests.

3.3.4 The contrast between blood and genes as idioms of relatedness may be phrased as a contrast between forms of cultural knowledge. The difference is that within scientific discourse, genes (despite uncertainty regarding their precise nature) are seen to belong to an empirical order of truth. In contrast, the truth of a blood tie is generally recognised to denote a wide range of potent cultural meanings, as evidenced by their continual negotiation. Hence, although 'blood' may stand for genes (in the biological sense that a tie claimed on the basis of shared descent through procreation would be assumed to refer to genes, as blood is not so transmitted), the reverse is not as readily envisaged, as genes do not represent all of the meanings of blood.

3.3.5 The reason for this can be stated simply. As long as 'blood' did service for genes, as they emerged as a new form of knowledge, genes were not a separate subject of representation. In this sense, they cannot be called an indigenous idiom for kinship in Europe. In terms of the emergence of the scientific understanding of the gene, concepts such as the continuity of the germ plasm may well bear some derivative relation to pre-existing European cultural concepts of the blood tie. However, scientifically rendered as biogenetics, such affinities may be of little consequence regarding public understandings of relatedness.

3.3.6 A significant distinction between the concept of blood as an idiom of kin ties, and the science of biogenetics as a model of inheritance and relatedness is the location of these two knowledge systems. Blood could be described as 'thicker than genes' in its longstanding cultural entrenchment in European history. Genes are a recent knowledge system derivative of modern science. Whereas the idea of blood may be encountered in a variety of contexts, including some of the most traditional institutions of European society, such as the church, the idea of genes is more likely to be encountered in the context of institutionalised medicine (e.g. pre-natal or other genetic screening programmes); in media discussions of scientific innovation; or in legal contexts, such as in criminal or family law.

(1) Despite their superficial similarities, blood and genes must be seen to constitute quite different systems of cultural knowledge.

(3) We may expect an imbalance in favour of genetic descriptions as genes become more visible in the context of individual decisionmaking, particularly in the contexts of reproduction and medical treatment of disease.

(4) What is indicated by the documentation of cultural constructions of the blood tie within European cultures is the inevitable and overdetermined embeddedness of this idiom in a specific cultural context, and its active negotiation by individual subjects in the constitution of identity and relatedness. *A parallel process can be predicted for genetics as an idiom.* 18

4.1 This project has identified a large body of ethnographic literature within social anthropology documenting diverse aspects of kinship in Europe. The project finds that this literature is of significance to the evaluation of the HGAP by identifying a particular set of implications: these are *the cultural implications of the redefinition of kinship*.

4.2 Within this literature, the materials which address *the meaning of a blood tie in the constitution of relatedness* comprise an important source of ethnographic documentation.

4.3 The study has also identified a number of specific empirical questions related to this area, focussing on *the relationship between ideas of relatedness by blood and representations of genetic connection*.

4.4 The project finds the 'European Community' feasible as a comparative frame of reference for a coordinated anthropological research exercise addressed to kinship, and that such research could contribute to the evaluation of new genetic technologies through which definitions of relatedness are currently being reshaped.¹⁹

4.5 It is concluded that a substantial basis for cooperation on the question of kinship in the context of new reproductive and genetic technologies exists amongst European anthropologists, and that a major field of scholarship already exists concerning European kinship patterns upon which such cooperation might be based.

¹⁸This throws light on the way it has been seized on in popular parlance as a source of certain information in the prediction of life expectations, personal character, and so forth, in ways that far outrun scientific explorations of the potential of genetic knowledge.

¹⁹It should be noted that the benefits of comparison within the European frame are of particular significance in the context of the changing ethnic composition of the European population, which counts among its citizens an increasing number of peoples of non-European origin. In addition, it should be noted that the inclusion of European Area Countries would enhance such a comparative exercise.

4.6 It is recommended that this preliminary study serve as the basis for ongoing consolidation of the database on European kinship, and for future cooperation amongst anthropologists working in this field.

4.6 Practical measures which would assist in the realisation of such research cooperation, in particular the compilation of a database of European ethnographic sources, have also been identified.

The project concludes that the introduction of new genetic technologies will effect a selective reinforcement of those aspects of kin reckoning which have turned on shared bodily substance.

It is expected that the possibilities opened up by new genetic knowledge will have a specific impact on understandings of connection and practices of disconnection in the context of kinship.

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Appendix 1: Informal Network of European Anthropologists Concerned with the HGAP

The second biennial meeting of the European Society of Social Anthropologists (Prague, August 1992) provided the occasion to acquire an up-to-date account of research in this field from a number of European colleagues. A workshop organised by the authors of this *Report* at the EASA meetings provided the opportunity to introduce the aims and preliminary findings of the study to a wider audience of European colleagues. It also enlisted the support of several participants in elucidating the contribution potentially provided by anthropology, and its limits, in relation to NGTs and the HGAP. This meeting generated a list of conference participants with an interest in anthropology and the NGTs. Follow-up to the EASA meeting provided the occasion for establishing an informal network of European social anthropologists with an interest in the kinship dimensions of the HGAP.

Table 1: Informal Network of European Social Anthropologists Interested in NGTs

Country	Number of Participants	Number of EASA members
Austria	4	1
Britain	6	3
Germany	2	1
Greece	1	1
Denmark	1	0
Norway	5	5
Portugal	1	1
Spain/ Catalonia	5	5
Japan	1	1
Sweden	1	0
Ljubana	1	0
Israel	1	0
Netherlands	1	1

A contemporary example of the 'rimless wheel' effect of bilaterism can be drawn from a recent exhibit in the Musee de l'Homme in Paris entitled *Tous Parents, Tous Differentes*. Significantly (for the purposes of this *Report*), this exhibit combined an introduction to NGTs aimed at the alleviation of inherited disease with the foregrounding of a panhuman kinship. One message of the exhibit is as follows:

*Imaginez Yatre {rbe gene}agiQile: ch{ccm d'entre nails {j: 2 p{jrents,
4 gr{jnds-p{jrents,
a {rriere gr{jnds-p{jrents,
16 {rriere-{rriere gr{5nds-p{jrents, etc.
A }j JJe gener{tian, sait yers J{jn 1200, dil temps de 5{jint L ail;s, cn{Cim d'entre nails
{jur{jit a m}} ; {jrds d'{jncetres.
A }j aOe gener{tian, soit {jU debut de J'ere chretienne, ch{ccm d'entre nails {jur{jit 1 m; man
de m}};{jrds d'{jncetres.l*

*L 'etilde sc;entif;Que de nas differences et de netS resemb}{jnces montre Qu'on ne peilt
distinguer Que dei/X c{jtegaries b;a}ag;Ques n{jture 1Jes d'Hammes:
} 'espece et } 'nd;Y;du.*

In this example 'kin' reckoning based on genes replicates the tracing of ties through blood and bilateralism, but to new effect, namely anti-racism on the basis of consanguinity.