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Author: Michael Banton

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Accounting for Human Diversity

Michael Banton

A Nobel-prize-winning physicist at M.I.T., Frank Wilczek, warned his colleagues: 'If you don't make mistakes, you're not working on hard enough problems. And that's a big mistake.'

In an article four years ago I claimed that I had earlier made two intellectually interesting mistakes. I was pleased to be able to make such a claim, because many academics go through their careers without ever making an interesting mistake. Now I am claiming to have discovered a third mistake.

In a textbook published in 1967 I maintained that *race* was used as a role sign, indicating a person's social entitlements. That was my first mistake. I should have said that it was phenotype, or outward appearance, that was so used. Aware that appearance had different significance in different societies, I also took steps towards a possible theory by differentiating what I called 'six orders of race relations'. That was my second mistake. No-one can create a sociological theory on the basis of a concept that is culture-bound, limited to certain societies and certain historical periods. Some said that because popular conceptions of race derived from a misunderstanding of biological differences, the word was better avoided. Wishing to help correct such misunderstandings, I collaborated with a microbiologist to publish a book titled *The Race Concept*. That title was my third mistake.

I have been led to this recognition of error by Robert Bernasconi, who, assuming that there is what he calls 'a scientific concept of race', has asked 'who invented it?'. He has then pointed a finger at the philosopher Immanuel Kant. In my view, he reads the past in the light of his own, modern, conception of *race*, and that is a mistake, though not an interesting one.[1] His argument has led me to the conclusion that at no time in the five hundred years that the word *race* has been used in west European languages, has there ever been sufficient

[1] Some recent discussion of `Who invented the concept of race?' appears to be motivated by a desire to assign responsibility for the origination of racial ideologies. For example, Andrew Valls's collection of essays, *Race and Racism in Modern Philosophy* (Ithaca, 2005) is primarily concerned to establish whether various eminent philosophers were racists.

agreement upon its use as part of an explanation to justify anyone's calling it a concept. A *scientific* concept has to be much more than an ordinary language word. It has to form part of a set of concepts that, applied in association, can make possible an explanation. The concepts of anthropology may not have the explanatory power of the concepts of physics, but they aspire to scientific status.

I was wrong to contrast the idea of race with the concept of race. The proper contrast is between the ordinary language vocabulary of everyday life and the kind of technical language needed to resolve intellectual problems. The technical, or analytical, concepts that help explain human diversity are those of inheritance, both genetic and environmental. The latter include social, economic and cultural factors. So I concluded that both *race* and *ethnicity* were folk concepts rather than analytical concepts. Seeking to go further, I contended that 'the processes of inclusion and exclusion are, at least in embryo, analytical concepts which will help explain the observations with which the study of racial and ethnic relations is concerned'.[2] That was as far as I could then go.

The two dimensions

Historians who read the past in the light of present-day conceptions of *race* neglect the differences in the meanings that have been given to the word, and the changes over time. It is easier to identify the differences if we recognise that the word *race*, in all the languages in which it features, has necessarily both a vertical and a horizontal dimension of meaning. In the *Oxford English Dictionary* the vertical dimension is seen in its definition as 'The offspring or posterity of a person'; this is illustrated with an instance from 1570: 'Thus was the outward race and stocke of Abraham after flesh refused'. The next four examples in the *Dictionary* reflect what I call the horizontal dimension, evident in the definition of *race* as 'A set or class of persons … having some common feature or features'. This dimension is exemplified by a verse from the Scots poet Dunbar, penned between 1500 and 1520, that refers to 'Bakbytteris of sindry racis'. The vertical dimension identifies the historical origins of the distinctiveness of a set of persons, emphasizing heredity and genealogy. The horizontal dimension identifies the nature of that distinctiveness. It is represented in the Linnean

[2] Banton, 'Analytical and Folk Concepts of Race and Ethnicity', *Ethnic and Racial Studies*, 2 (1979), 127–138, at 136

taxonomy that assigns persons, or other living things, to appropriate taxa. Usage of the word *race* in the vertical sense is sometimes politically innocent; employed in the horizontal sense it is rarely so.

Linnaeus, writing in Latin, pioneered the construction of a technical language. When, at the end of the eighteenth century, authors wrote works of natural history in the European vernaculars, the situation changed. Kant was among the leaders. He first addressed the subject in an essay titled 'Of the Different Human Races'; in it he distinguished *Naturbeschreibung* (or the description of nature) from *Naturgeschichte* (or natural history). The former was static, embodying classifications at moments in time that were based upon similarities, and which built up into an 'artificial system' that divided specimens into genera, species and varieties. It captured the horizontal dimension. The latter dealt with relations between specimens over time. Kant's notion of a 'natural genus' captured the vertical dimension; and it was with this that he was primarily concerned. By contrast with the 'artificial system', it was 'a system for the understanding'. It showed that nature, or environmental influence, could produce a distinctive stock which 'might even be called a race'.

Though at this time Kant's ideas were changing in the light of new evidence, and in response to new philosophical currents, he maintained his distinction between the two systems of thought. When, thirteen years later, he returned to the subject, Kant wrote `What is a *race*?[3] The word certainly does not belong in a systematic description of nature', and then repeated this assertion, adding that in the description of nature the proper word to use was *variety*. In *Naturgeschichte*, however, the word *race* was rightly used to identify 'conjunction of causes placed originally in the line of descent of the genus itself in order to account for a self-transmitted peculiarity that appears in different interbreeding animals but which does not lie in the concept of their genus'. On this reading, were he not opposed to the doctrine of evolution, Kant could be said to have anticipated Darwin's use of race as sub-species.

He went on to assert that in *Naturgeschichte* a genus could be divided into lines of descent, races, but they did not 'contain invariable characteristics passed on according to a given law' and, consequently, could not be divided into classes. He was here concerned with a differentiation that had to be interpreted teleologically. As Bernasconi writes, Kant insisted that 'nature is organized purposively'.[4] Were

[3] Immanuel Kant, `On the Use of the Teleological Principle in Philosophy' (1788), in Robert, Bernasconi, *Race* (Malden, 2001), 37–56 at 40.

[4] Robert Bernasconi, `Who Invented the Concept of Race? Kant's Role in the Enlightenment Construction of Race', in Bernasconi (ed.), *Race*, 23.

these the Creator's purposes? Kant explained: `Purposes are either purposes of *nature* or of *freedom*. No human being appreciates *a priori* that there must be purposes in nature, but we can very well appreciate *a priori* that there must be a connection between causes and effects. Consequently, the use of the teleological principle is, in the consideration of nature, always empirically conditioned.'[5] Kant seems to be asserting that, while humans could not identify the Creator's purposes (the purposes in nature), they (in the realm of freedom) had to regard organisms *as if* they were part of such a design. This has been felicitously expressed by Susan Shell:

> We understand living beings teleologically, on Kant's account, not because we have immediate access to their 'natures', but because we cannot think the possibility of such a living system without presupposing a concept of what the organism is 'to be' in the mind of some hypothetical, infinitely artful author.[6]

Though Kant believed that environmental influences could be occasions for change, he did not accept that they could be part of the 'conjunction of causes placed originally in the line of descent of the genus itself'. *Naturgeschichte* would uncover the original natural endowment of the species and explain its actualization in variety over time in different environments.[7]

Kant's sometime pupil Johann Gottfried von Herder may have had Kant's first essay in mind when, in 1784, he objected that: `Some have for example ventured to call four or five divisions among humans, which were originally constructed according to regions or even according to colours, *races*; I see no reason for this name. Race derives from a difference in ancestry that either does not occur here or includes the most diverse races … For each people is a people … '.[8] The relations between the teacher and his pupil had soured, which

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[5] Kant, `On the Use of the Teleological Principle in Philosophy', 52.

[6] Susan M. Shell, 'Kant's Concept of a Human Race', in Sara Eigen and Mark Larrimore (eds), *The German Invention of Race* (Albany, 2006), 55–72, at 60.

[7] Contrary to my interpretation, Mark Larrimore–who knows far more about Kant's writing than I ever will–has maintained in 'Race, Freedom and the Fall in Steffens and Kant' (*The German Invention of Race*, 91–120) that, `The necessity Kant claimed to find [in his account of human history] showed something non-accidental in the unfolding of human diversity. It presaged a study of nature that could move beyond mere `description of nature' (*Naturbeschreibung*) to a true `natural history' (*Naturgeschichte*).' (Larrimore 2008). In my view, he and Bernasconi do not reflect sufficiently on the meaning(s) Kant ascribed to the word *race*.

[8] Robert Bernasconi and Tommy L. Lott (eds), *The Idea of Race* (Indianapolis, 2000), 26.

makes it the more possible that Herder had misunderstood Kant. However much they may have disagreed about other matters, their views about use of the word *race* were not far apart.

On my reading, Kant used the word *race* as an ordinary language expression in an attempt to understand Creation; he had in mind the vertical dimension. This attempt was to be distinguished from the part of his work that may be seen as contributing to science. He did not want to find a place for *race* as a division within a Linnean taxonomy, which would reflect the horizontal dimension. Kant was writing `in an intellectual milieu in which race had not yet made the shift from … a climate in which monogenesis implied a theological and not merely a historical narrative'.[9] Kant's rhetoric of freedom led to a philosophical reflection upon human difference, decoupling the word from its use in the empirical analysis of difference.

Had scholars continued to write in Latin some of the confusion might have been avoided. French and English anthropologists began to use *race* as if it were a taxon in what Kant would have called *Naturbeschreibung*. They tried to insert it into the Linnean schema of *genus, species,* and *varietas* without securing any agreement about how it related to the existing taxa. Thus in his magisterial work *Le Règne animal* of 1817, Cuvier used *race* as a synonym for *variety*, stressing the horizontal dimension. The leading English anthropologist of the period, James Cowles Prichard, protested in 1836 about the way a word that denoted a succession of individuals propagated from a given stock was being wrongly used to imply a distinction in the physical character of a series of individuals.[10] He identified the concept of race with the vertical differentiation.

Prichard's protest did not stem the wave of interest in the utilisation of the word *race* in its horizontal sense. Because of its significance for contemporary politics, this expansion of meaning attracted intense interest and, in the Victorian era, generated great confusion. Eleven representative essays written between 1864 and 1880 have been assembled in a volume, *Images of Race*.[11] This opens with a reminder that in 1863 the President of the London Anthropological Society lamented that hardly any two persons were fully agreed upon the word's meaning. Three of the eleven (including a clergyman who became Dean of Canterbury) developed typological or polygenist arguments; three elaborated Darwinian arguments. One contended that the mixing of two European races

[9] Larrimore, `Race, Freedom and the Fall in Steffens and Kant', 92, 115.

[10] Michael Banton, *Racial Theories* (Cambridge, 1998; second edition), 45–6.

[11] Michael Biddiss (ed.), *Images of Race* (Leicester, 1979).

produced a superior race. Another, the historian E. A. Freeman, anticipated a social constructionist view when he maintained that races were not distinctive physiologically but became so politically if they accepted the doctrine that a common nature entitled a people to their own nation state. Among the eleven contributors was Sir Francis Galton, a notable propagandist for eugenics, who, here and elsewhere, used the word in at least five different senses. When he employed expressions like `judges are by no means an infertile race' he kept alive the metaphorical literary usage. Galton was not embarrassed to use *race* as a synonym for genus, for species, and, apparently, for variety as well. Notably, he also used it in yet another sense, as a synonym for heredity.[12] If someone of his intellectual stature could in this respect be so unsystematic, it should occasion no astonishment that the practice of other contemporary writers was no better.

This confusion continued well into the middle of the twentieth century and there is a simple explanation for much of it. Many scholars, particularly anthropologists, were starting their studies from the wrong end. They assumed that if they collected and classified observations, explanations or theories would emerge by induction. Darwin in one of his letters expressed his bafflement that they should do so; he wrote 'How odd it is that anyone should not see that all observation must be for or against some view if it is to be of any service'.[13] Science begins with problems, and progress is most rapid when a research worker has a fruitful problem to address. A good problem is one which, if solved, casts light over a wide span of causal relationships. Darwin found a first class problem, and persevered with it.

The right approach for a nineteenth century anthropologist would have been to seek a good problem and then consider what theory might help its resolution. *Race*, in some sense of that word, might be part of such a theory. Its definition would be decided by its utility. The wrong approach was to take some conception of race and try to prove that it was valuable. That was to base an argument on an ordinary language word. This was the procedure recommended by one of the most widely-read exponents of a racial philosophy of history, Houston Stewart Chamberlain, who asked 'What is the use of detailed scientific investigations as to whether there are distinguishable races? ... We turn the tables and say: it is evident that there are

[12] Michael Banton, `Galton's Conception of Race in Historical Perspective', in Milo Keynes (ed.), *Sir Francis Galton FRS: the legacy of his ideas* (London, 1993), 170–9.

[13] Francis Darwin and A. C. Seward (eds), *More Letters of Charles Darwin: a record of his work in a series of hitherto unpublished letters*, 2 vols (London, 1903), 195.

such races: it is a fact of direct experience that the quality of race is of vital importance'.[14]

Only in the 1930s did the various new lines of research start to come together again in a synthesis which has enabled the student to appreciate why, in biology, the replacement for the concept of racial type was that of population. The foundation of this synthesis was population genetics, the branch of genetics which investigates the changes in gene frequencies. The new synthesis initiated in 1930 by R. A. Fisher's landmark book, *The Genetical Theory of Natural Selection,* necessitated a reorientation on the sort of scale that takes a generation to effect. There must always be lines of inquiry that lead into dead ends or become no longer worth pursuing. There were several of these in physical anthropology and in zoology.

The mid-twentieth-century transition in the biological study of human variation may have been accelerated by a political intervention that exposed the oppositions between competing schools of thought. Discussion within the United Nations led in 1950 to an instruction to the Director-General of UNESCO to collect scientific material concerning questions of race. His staff began by assembling an international committee of experts, who prepared a fifteen-paragraph 'Statement on Race', published in the same year. Among other things, it stated that 'the biological fact of race and the myth of "race" should be distinguished' and that 'it would be better when speaking of human races to drop the term "race" altogether and speak of ethnic groups'. 'According to present knowledge there is no proof that the groups of mankind differ in their innate mental characteristics...'[15]

To assert that race was a myth was to use both words too loosely. The various schemes of racial classification were founded on the best available data. The key issue was whether they were useful. To account for the incidence of sickle cell anaemia, an understanding of the Mendelian principles of inheritance was essential. To give a patient an appropriate blood transfusion, the several classifications of human blood types were similarly essential. No-one could identify a practical problem that could be solved by recourse to racial classification. UNESCO consulted further, produced a second Statement, and, in a booklet entitled *The Race Concept*, published a selection of observations and comments, three alternative suggested statements, and a further formulation. These documents show that at the time in question

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[14] Houston Stewart Chamberlain, *The Foundations of the Nineteenth Century*, 2 vols (London, 1911), 271.

[15] *Four statements on the race question* (Paris, 1969), 31-4.

physical anthropologists tended to employ the word *race* with a meaning that emphasized the horizontal dimension, whereas the geneticists used it with a meaning that stressed the vertical meaning.

The realm of practice

In Britain the political elite adopted the idiom of *race* in the mid-nineteen-fifties. This was a conscious decision that set the country on a particular path. The first British proposal for legislation, in 1950, had been a *Colour Bar Bill*. International and European law now defines racial discrimination so as to cover unequal treatment on grounds of colour and ethnic and national origin as well as on the grounds of race, but a proposal in Britain to legislate against ethnic rather than racial discrimination would have been less effective politically. The war against Nazism had defined racial discrimination as morally offensive. So the first statute was the *Race Relations Act* of 1965.

To present relations between incomers and the settled population in racial terms was to polarize them as the relations between two, or several, categories of people. This facilitated the mobilization of opinion in support of innovative policies. Adoption of the racial idiom was, I believe, central to policies that made Britain the leading country in Europe in the discharge of the obligations undertaken by states that are parties to the International Convention on the Elimination of All Forms of Racial Discrimination, in the introduction of ethnic monitoring, and in other policy spheres. It seems improbable that as much would have been achieved had discussion of the issues continued to be framed in terms of `the colour problem' or `the colour bar'.

The racial idiom was employed to stigmatize expressions and actions believed to derive from obsolete and misconceived ideas about human differences. It therefore empowered the minorities by opening up a line of criticism of majority attitudes and assumptions. The word *racist* became an epithet carrying a heavy charge of moral condemnation. This was illustrated by the use of the expression *institutional racism* in the Macpherson report of 1999. The favourable public reception of this report enabled the Home Secretary to move the case for action against racial discrimination and disadvantage to the head of the political agenda. It shattered the complacency of the Metropolitan Police and of some other bureaucratic institutions. Macpherson's rhetoric was politically effective.

The shift from the idiom of colour to that of race therefore had many positive outcomes. Some other developments were less clear-cut. For example, in the nineteen-sixties there was a marked tendency for references to 'race' to be equated with disputes over immigration. There might have been a more productive debate about immigration policy had it not been confounded with 'race', so in this connection adoption of the racial idiom may have had both positive and negative consequences.

In the USA, the continuing influence of the black-white division was evident in the Census of 2000. Question 5 asked, 'Is this person Spanish / Hispanic / Latino?' and required the person answering to tick an appropriate box. Question 6 asked, 'What is this person's race?' and offered a set of boxes, beginning with three categories: 'White', 'Black, African Am., or Negro' and 'American Indian or Alaska Native'.

Question 5 and Question 6 were not consistent with each other. A European would have expected both kinds of diversity to be encompassed within a single question. Yet the Bureau of the Census had to devise two questions because most residents in the USA thought of the Hispanic/Non-Hispanic and Black/White distinctions as different: as if one were cultural and the other biological. The popular mode of thinking was in conflict with the scientific evidence showing that the demographic distinctions were cultural.

Most residents in the USA did not, and still would not, query the wording of Question 6. If the person in question identified himself or herself as 'Black' he or she was to be assigned to that category even if his or her ancestry was more European than African in origin. Ancestry was usually judged, not by knowledge of genealogy, but by skin colour. If Question 5 was about geographical origin, Question 6 was about colour or phenotype, not about *race* in any intellectually defensible sense of that word. The other connotations that the word had acquired since the late seventeenth century were excluded as logically irrelevant to the census.

Humans are not always logical. Many Americans believe, like Houston Stewart Chamberlain, that it is evident that there are races. It looks as if this contemporary commonsense conception is the source of Bernasconi's assumption that there is a concept of race.

Question 6 had its origins in a time when there were two distinct social categories. Most Americans have continued to think in these terms, as if persons of mixed origin and intermediate colour were anomalies. The inauguration of a President who is of equally black and white origin, and of

intermediate colour, should gradually undermine the tendency for the word *race* to evoke an obsolete conception of distinct social categories.

In twentieth-century Britain, use of *race* in the vertical or literary sense may be more common than in the USA. A striking example of the vertical sense, and of a politically innocent usage, can be found in the 1986 statement about *The Nature of Christian Belief* from the House of Bishops of the Church of England. This declared 'Jesus is also the "second Adam", the Head of a new race of God's children in the Spirit'.[16]

In the census of 2001 residents in England and Wales were asked to classify themselves by ethnic group, not race, but racial nomenclature persists, as with individuals who describe themselves, or are described, as 'mixed race'. The main source of trouble is the 'one size fits all' philosophy of definition. A classification suited to one purpose may be quite unsuited to another purpose.

Race in social science

Because the idiom of race is so important in the realm of practice, the arguments for superseding its employment in the realm of social theory have been neglected. Since it is generally accepted that racial doctrines have an ideological character, and that it is in the nature of ideology to distort perceptions of reality, the task for sociologists is to analyze that reality in a manner that escapes such distortion.

It was with this in mind that I took 'race as a social category' as the title for my inaugural lecture in 1966. I have since come to appreciate that this line of analysis requires a theory of social categories. I have devised such a theory in the form of ten propositions.

It starts, first, with the proposition that *human individuals have distinctive characteristics*. Some are physical, such as those of sex, stature and the variation in skin colour that can be measured with a photospectrometer.[17] Some are cultural, including the significance attributed to physical characteristics, but mainly to those of descent, including those of ethnic origin. Second, that the attribution of significance to such characteristics results in *the creation of social*

[16] House of Bishops of the General Synod of the Church of England, *The Nature of Christian Belief* (London, 1986), 31.

[17] See Pierre L. van den Berghe & Peter Frost, `Skin Colour Preference, Sexual Dimorphism and Sexual Selection: a case of gene culture co-evolution?' *Ethnic and Racial Studies*, 9 (1986), 87–113.

categories; the characteristics may then be treated as signs of social entitlement. In all but the simplest forms of human society individuals are graded in terms of socio-economic status and where there are phenotypical differences these are given value in that scale. Third, that *individuals share these characteristics with others*, which may make them a basis for ascribed roles. Fourth, that *phenotypical characteristics are transmitted from one generation to another*, though there may be variation of colour within a family. Fifth, that *common characteristics become the bases for collective action*, either to defend shared privilege or to challenge less favourable treatment.

Implicit in the third, fourth and fifth propositions is a sixth, that *social relations are multidimensional*. They are the relations between individuals, whereas relation*ships* are relations between roles. Relations may be conducted on the basis of different relationships. John Doe and Rachel Roe might interact as male and female, teacher and pupil, landlord and tenant, driver and passenger, etc. Each role relationship defines a dimension of the relations between the two persons. Relations have an ethnic dimension when significance is assigned to the parties' ethnic origins.

Then come two closely related propositions. The seventh states that *the significance attributed to any particular characteristic is determined by the society's relation to its environment* and to material circumstances. Thus, for example, pastoral societies in which human groups move around together with their animals according to seasonal variations in the availability of pasture, are composed of groups defined by patrilineal descent. No other characteristic could provide a comparably effective organizing principle. The eighth proposition states that *the significance attributed to any particular characteristic is also culturally determined*. There are societies – like plantation economies – in which manual labourers (possibly slaves or indentured workers) are controlled by a relatively small number of landowners and their agents. The workforce can be controlled more easily if there is an ideology of biological difference between the social categories (the classic example is Plato's thesis that it would be easier to rule his ideal republic if the members of the various categories had been brought to believe that God had made the rulers of gold, the auxiliaries of silver, and the farmers and craftsmen of copper and iron). If descent were used as a characteristic for assigning individuals to fixed categories of this kind it would not provide an organizing principle for a progressive society seeking to make best use of individual talent.

The eighth proposition recognises that human individuals are socialized into their natal societies, learning the importance of co-operation, and thus of

different kinds of relationship with others. Each individual becomes familiar with a particular social order and a particular population composition. These orders are rarely static. As the social world expands, so the sense of a person's duty to his or her neighbour is affected by an expanding conception of who counts as a neighbour.

The seventh and eighth propositions help explain why more significance is attributed to one characteristic than another. For example, they explain why, in a given pastoral society, and in given circumstances, more significance is ascribed to patrilineal than to matrilineal descent, and more significance is ascribed to descent than to any variation in physical appearance. There may be none of the differences of costume, speech and education that can be important to the calculation of socio-economic status in industrial societies. In industrial societies individuals differ in the relative significance they ascribe to such characteristics, and the explanation of the variations is an important sociological problem.

To state, without qualification, that an individual is socialised into a natal society is to assume that this society is homogenous. Many are not. There may be differences associated with class, or status, or differences that result from migration and encounters between persons of different origin.

In the course of human history human societies have become more diverse. New social institutions have been created. One of the most important developments has been the creation of the state, often thought of as the nation-state. This adds a new social category to the list, nationality, and a new dimension to social relations, namely the civic dimension.

In modern times, one society is distinguished from others primarily by its constitutional laws. These bring together the recognition of natural (or presumed natural) characteristics, cultural characteristics and political norms, declaring what characteristics shall determine rights and obligations in particular circumstances. This leads to an ninth proposition, that *shared sentiments are given effect in the processes of law-making and law-enforcing that provide foundations for the definition of social roles and reward conformity with social norms*. Legislating is one way in which bottom-up and top-down processes are reconciled.

Citizens elect representatives to make laws which they themselves will have to observe. This proposition has a special significance for the study of ethnic relations, for sentiments are not evenly shared and group norms may influence the extent to which laws are enforced. When ethnic categories are associated with distinctive religions, religious norms complicate relations.

A tenth proposition then holds that *categories are under pressure, such that, if*

they are not maintained, they change. Partly because of political processes, such as those associated with state institutions, *the significance of one category relative to other categories varies over time*. If categories are to persist, they have to be reinforced by the norms of everyday behaviour. The historical record shows that an ethnic minority may take control of a country (e.g., the Norman Conquest of England), that for one or two generations there is ethnic conflict, but two generations later the ethnic categories are no longer significant. Equally, members of what becomes an ethnic minority may enter, or be brought into, a country in a subordinate status, but, over time, the social division is reduced or bridged. Categories may also change in character. The gender category is a case in point. In many societies the nature of the gender dimension has changed greatly in the past century.

Fredrik Barth observed forty years ago that stable inter-ethnic relations presuppose a systematic set of rules 'governing situations of contact, and allowing for articulation in some sectors or domains of activity, and a set of proscriptions on social situations preventing inter-ethnic interaction in other sectors, and thus insulating parts of the cultures from confrontation and modification'.[18] Such rules are embodied in social institutions, notably those of government, religious observance, employment, education and residence. It is in the operation of institutions that categories are maintained or modified, for in many kinds of society inter-ethnic relations are far from stable.

One illustration of the way categories change can be seen when individuals migrate and enter other states. Frequently they find that either the state or members of the public assign them to a social category based on ethnic or national origin. They can find themselves categorised together with individuals who, in their country of origin, they would have regarded as socially very different from themselves. If they are subject to pressure from the ethnic majority, they may come to identify with their co-nationals and form an ethnic group at the same time as they are members of an ethnic category.

Physical appearance and ethnic origin

The significance ascribed to a characteristic like descent or skin colour can be a basis either for evaluating the entitlement of an individual or for the creation of a social category. That significance can create either a *colour scale*

[18] Fredrik Barth (ed.) *Ethnic Groups and Boundaries. The Social Organization of Culture Difference* (Oslo 1969), 16.

(in which individuals are ranked by socio-economic status with complexion as one of the constituent elements that is taken into account) or a *colour line* (in which individuals are divided into distinct social categories of differential entitlement). In the same society there may be both a colour scale and a colour line. In the USA the colour line is usually seen as a major feature of the total society and the colour scale (more usually referred to as 'colorism') as a basis for distinction within the black population, but white attitudes also reflect recognition of a colour scale.[19]

In analyzing the operation of the colour scale, it is helpful to note the distinction (drawn by Kretch and Crutchfield in *Theory and Problems of Social Psychology*) between relative willingness to be (i) exposed to an individual and (ii) identified with an individual.[20] The first kind of preference, for differential exposure, can be important in interpersonal social contacts and be evident in a desire to associate with persons of a particular skin colour. The preference for lighter colour was challenged by the 'Black is Beautiful!' campaign, yet research by social psychologists shows that very many black children in the USA still prefer a pale complexion. The second kind of preference, for differential identification, underlies the colour scale. It can be important in political contexts, for election campaigns often cultivate the inclination of voters to identify with candidates on the basis of skin colour. A candidate who seeks the votes of black voters can be assessed according to whether he or she is sufficiently dark to evoke identification.

There are also situations in which individuals prefer an intermediate complexion. Advertisers seek to appeal to as wide as possible a consumer market. They prefer to employ models with whom potential purchasers may identify themselves. A fair rather than pale-skinned model may be one with whom both blacks and whites can identify.

The significance ascribed to ethnic or national origin varies between societies and can vary over time within the same political unit (when sociologists refer to societies in the plural it is usually political units they have in mind). In the former Yugoslavia, for example, Serbs, Croats, and others, often lived together in the same villages. Sometimes they intermarried. Consciousness of ethnic difference was low. Then, when conflicts escalated elsewhere within the Federal Republic, relations changed. Many inter-ethnic marriages were broken. Ethnic

[19] Joni Hersh, `Profiling the New Immigrant Worker: The Effects of Skin Color and Height', *Journal of Labor Economics*, 26:2 (2008), 345–86.

[20] David Kretch, and Richard S. Crutchfield, *Theory and Problems of Social Psychology* (New York, 1948), 222–4.

identification became important to the personal security of individuals. After the dissolution of the Federal Republic and some population movements, ethnic consciousness could decline again. It has been conventional to conceive of ethnogenesis as a process by which a set of individuals come to conceive of themselves as a people, but it would be more accurate to speak of ethnoacclivity and ethnodeclivity as processes by which the significance attributed to ethnic identification rises and declines. From a sociological standpoint it is as important to account for the absence of ethnic identification as for its presence.

Ethnic identification is a composite of self-conception and categorization by others. It gives an additional dimension to a social relation, influencing the disposition of each party towards the other. It is more than simply self-conception, in that the existence of a norm specifying differential treatment itself creates or sustains any self-concept. It has also to be seen as an interaction between the individual and his or her social environment. The environment exerts a top-down pressure, yet, important as this may be, it is not all-powerful. There is always upward pressure for change.

Race in bio-medical science

The disagreements of the nineteen-fifties have been transcended by discoveries that have made possible the mapping of the human genome and the elaboration of new and more powerful concepts. Instead of either/or conceptions of inheritance there are measures of heritability. Computer-based information technology facilitates more complex analysis. So *race* does not feature in the *International Code of Zoological Nomenclature 2000*. The multivariate analysis of variation within and across species has proven more informative than the division of species into subspecies. The advance in knowledge has been accelerated by the ability of biologists to ask better, more precise, questions than their predecessors, building upon each discovery to go further in the next stage.

This growth in knowledge is not easily digested. Obsolete assumptions linger. Some confusions stem from a failure to differentiate use of *race* as a term in the *explanandum* and its use in a proposed *explanans*. For example, a study of US high school biology textbooks found that the attention paid to racial differences declined from the 1950s to the 1990s, but has since increased. 'Racial categories are now ubiquitous in textbook lessons on the mechanisms of genetic disorders [such as] sickle-cell anemia … cystic

fibrosis … [and] Tay-Sachs disease'.[21] Within the population, disease susceptibility rates vary, and the variation can be traced to genetic inheritance. That is a proposed explanation, and, where a clear line of inheritance can be identified, the individuals in question could be said to constitute a *race* in the Darwinian sense. It could be argued on moral grounds that such usage would be neither necessary nor desirable, but it would be scientifically defensible. The usage would reflect the vertical dimension.

However, the textbooks 'continue to use visual illustrations of human diversity'. One from 1998 reproduces four portraits of persons that the student might well think of as Negroid, Mongoloid, Caucasoid and Mediterranean in the terms of an older classification. It states: 'Scientists disagree about how and when different racial groups, some of which are represented by the people above, evolved.' They are described as representing 'racial groups'. *Racial* has been used in the horizontal sense. As no justification for the use of this adjective is provided, the reader is likely to confound it with the explanation of inheritance. The inheritance of sickle-cell anaemia, cystic fibrosis and Tay-Sachs, is explained in the terms of genetics. To account for the innumerable differences between persons classified as Negroid, Mongoloid, Caucasoid and Mediterranean, an exhaustingly long account would be required of the environmental factors embodied in ecology and history; in this account genetic inheritance would play only a small part. So the textbook presentation makes it appear as if genetic inheritance is a sufficient explanation of human diversity.

Another review by Gissis found that the biomedical literature scarcely ever made reference to *race* in the years from 1946 to the early 1960s; between then and the early 1980s, usage in the US and British journals differed; US journal articles compared samples identified in racial terms whereas UK articles accounted for observed differences in terms of environmental factors, and started to consider the possibility that racial discrimination might restrict access to medical services.[22] Between the late 1980s and 2003, especially in the US journals, there was a process of 'geneticisation'; because environmental factors could not be fitted into the model of genetical inheritance, their explanatory value was neglected. Specialist opinions diverged; some scientists considering that, despite all their deficiencies, racial/ethnic categories were

[21] Ann Morning, 'Reconstructing Race in Science and Society: Biology Textbooks, 1952–2002', *American Journal of Sociology*, 114 (2008), Suppl. S106–S137.

[22] Snait B. Gissis, 'When is "Race" a Race? 1946–2003', *Studies in History and Philosophy of Biological and Biomedical Sciences*, 39 (2008), 437–50.

useful surrogates for measures of environmental factors. Others thought their use inappropriately encouraged 'biologised thinking'. They thought it inappropriate, I suggest, because such usage opened the environmental perspective and therefore required a separate discussion that was never undertaken.[23]

A third review by Martin *et al* in 2007 examined biomedical periodicals from 1994–2004 and interviewed 36 specialist researchers. It concluded that 'race/ethnicity is a difficult concept to operationalise' because 'it means such different things' and 'has meanings and uses that exist beyond scientific control'.[24] The issue had become more prominent because the US Food and Drug Administration had licensed the heart failure drug BiDil exclusively for use in the treatment of 'black' patients of 'African descent'.[25] The researchers found that 'there is no single, stable or robust meaning of race/ethnicity in genetics and biomedical research' but noted that some specialists thought that 'genotyping techniques had the potential to supersede racial/ethnic categories as crude proxies of collective genetic affinity'. Genetic science 'presents an opportunity to explore medically important variation in disease susceptibility amongst different racial/ethnic groups, and to reverse entrenched inequalities in ostensibly 'universal' medical technologies'. The authors here treat *race* as part of the description of the patient sample, the *explanandum*, not as part of the explanation of disease susceptibility.

Two specialists in biomedical research, Mountain and Risch, after acknowledging 'the potential for furthering racism by discussing race and genetics together', conclude that 'Given current health disparities, however, and assuming that our society values the goal of understanding the underlying basis of those disparities, the continued use of labels [racial categories] in epidemiological research and clinical practice seems justified'.[26] These authors

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[23] The section 'The Two dimensions' summarises an argument developed in an essay on 'The Vertical and Horizontal Dimensions of the Word *Race*' to be published in the journal *Ethnicities* with a rejoinder by Robert Bernasconi. The section 'Race in social science' summarises an argument I plan to develop at greater length in future publications. Two of the articles discussed in the section 'Race in Bio-medical science' were drawn to my attention by Professor Ann Morning.

[24] Paul Martin, Richard Ashcroft, George T. H. Ellison, Andrew Smart, and Richard Tutton, 'Reviving "Racial Medicine"? The Use of Race/Ethnicity in Genetics and Biomedical Research, and the Implications for Science and Healthcare' (London, 2007).

[25] On the commercial background to this decision, see Jonathan Kahn, 'Race in a Bottle', *Scientific American,* 297:2 (2007), 26–31.

[26] Joanna L Mountain and Neil Risch, `Assessing genetic contributions to phenotypic

also are ready to accept racial categories as surrogates for elements that form part of the *explanandum*.

It is essential to keep the *explanandum* and the *explanans* separate. To use *race* as a term in both, is to fall victim to a logical fallacy, that of *petitio principi*. It looks to me as if some commentators have fallen into this trap, and I leave it to you to consider whether this constitutes an interesting mistake. My suggestion is that it may be easier to avoid the trap if we distinguish the vertical and horizontal meanings of the word. When writers treat *race* as an *explanandum*, they have the horizontal dimension in mind and need to look to the social environment, whereas it is within the vertical dimension that explanations are being found, and they are of a kind very different from those in scripture.

University of Bristol

differences among `racial' and `ethnic' groups' *Nature Genetics* 36:11 (2004), S48–53.