Ethnicity and Racism

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INTRODUCTION

The debate on ethnicity and racism is old, recurrent and with a strong ideological content; it is also a debate with two faces, academic and politics, which no sooner ignore each other than reciprocally reinforce. Politicians and mass media often use "scientific" arguments to support their views or to refute others and, what is more important, to justify certain social, educational, health and eugenic or – in some occasions – openly genocide policies affecting individuals or populations arbitrarily assigned to particular "races" or "ethnoses". But scientists too try to convince about the necessity of developing both certain investigations and legal regulations of crucial biosocial aspects which might differentially affect ethnic groups living in the same society; using the media like a resonance box to spread their arguments, which go from the ethical concern bound to the application of certain knowledge to plain ideology .

WHAT ARE WE TALKING ABOUT?

The meaning attributed to the words varies a lot among lay people, but also among close disciplines, an even among specialists of the same discipline. For this reason, it is useful to revise the meaning of the terms race and ethnos, as well as their transformation in the academic world resulting from the increasing knowledge in genetics, physical and social anthropology, and of other related areas. Anthropology ("The Science of Man") was born in 1855 with three basic pillars: physical anthropology, ethnology and archaeology and prehistory, sharing, all of them, an initial descriptive approach focused on classifying human diversity and narrating the history of man from the biological, historical, social etc point of view. Anthropology was born in Europe and in the USA when the slavery was still alive (e.g.: it was abolished in 1788 in France, 1865 in the USA and 1888 in Brazil), when European Countries were developing their flourishing colonial empires, with Victorian England in an hegemonic position, which helped to spread their strong feeling of European superiority. All these circumstances tinge the mere description of the biological, ethnological and cultural diversity with judgements pertaining to the superiority of certain groups, (already explicit in the "racial classification" of Linneus in the middle of the 18th century), giving birth to the so called "scientific racism" which contaminated all the daily aspects of life: the language of the historians, of the military regulations, of the political speeches and of the press.

In general, the term *race* has been used to classify human groups in function of some morphological traits (skin colour, face morphology, and so on) and the term *ethnos* to classify them in function of cultural features (language, religion, traditions, and so on), with the shade that, in this case, the approaches should also serve like a reference of identity for those classified. It is evident that the morphological traits of the face, the skin colour, and so on, are self-recognition approaches, and for that reason, the term ethnos usually includes the race like an additional differentiating approach, what has always created enough confusion. Both terms were conceived as ideal categories, unalterable by time and without internal diversity, and for both categories , the characteristics of "the *other one"* are frequently investments of the self-image of the European.

Racism and ethnicity derive from these terms. Racism is "the doctrine that affirms the superiority of a race on the other ones. In its theoretical formulation, it is a modern phenomenon that arises with the disappearance of the traditional hierarchical justifications. It has constituted the philosophical and psychological support of the Fascist reactions before the economic and national crises (nazism), of the imperialistic expansion (theories about the inferiority of Blacks, Amerindians and Asians) or the immigrants' and ethnic minorities' persecution and expulsion (…) it continues socially living in every community where the class frontier tends to coincide with a racial difference. It has reappeared in Europe against the immigration due to the economic crisis". This description (Grijalbo Dictionary 1986) summarises, in an exemplary way, all that the racism and its political and social derivations has implied, and that, regrettably, is fully present in today's world.)

Ethnicity is an anthropological term referred to the conscious identification of the individuals with a group with which they share certain cultural characteristics (language, culture, religion and so on)

but also morphological traits (skin colour, for example). In this case, there is not a classification "from outside", but rather it is the individual itself who consciously assumes an ethnic identity in function of certain characteristics that he/she shares with the members of a group. From psychology an interesting debate has been introduced on the difference between the individual identity ("a sense of identity is, by definition and for implication, a conscious part of oneself that can be multiple") and the ethnic or collective identity which, "as the first language, it is inseparable of a structure of the personality that becomes rigid in the adult's consistent pattern, so the individuals have only an ethnic identity subjectively genuine, but multiple identities ordered in a hierarchical way" (Sökefeld, 1999).

The ethnicity or ethnic identity usually goes together with the valuation of other societies in function of the dominant norms of the observed group which, of course, are considered the best. When what is own is valued as superior, we fall in the ethnocentrism, that is present among all the human groups without necessarily having any negative connotation. However, multiple examples exist, along the History and in all the societies, of the interested political use of ethnicity and ethnocentrism, that has generated unjust political situations, wars and genocides. The meaning of the ethnic conflicts has been manipulated and exacerbated, by all the implied parts, to justify strategic, political or economic interest that are, in fact, the motor and the backdrop of the conflicts. What has recently occurred in Europe with the wars that destroyed the Yugoslavian Republic, in Africa in the conflict of the Big Lakes, in the Near East with the Palestinian-Israeli conflict, or in Afghanistan are good examples of this.

BEHAVIOURS, GENES AND RACE

Generally speaking, it can be said, that there have been two fundamental currents in the history of Raciology, the one that exclusively uses biological characteristics to define races, related to the tradition of some physical anthropologists, especially after the Second World War (revisions on the topic: Garn, 1961; Montagu. 1964; Comas, 1966; Vallois, 1967; Barker, 1974; Dyer, 1974; Marquer, 1973; Brues, 1977) and the one that also adds behaviours and cognitive, intellectual and even cultural qualities, as phenotypic characteristics for the racial discrimination. This second trend, linked to the scientific racism, is still living in certain academic sectors – some of them related to psychology – that maintain unaffected their concept of race like an unalterable genetic unit, defined by groups of morphological characters, related to cognitive abilities and concrete behaviours, although the supporting arguments on superiority / inferiority are renewed with the time (Terman, 1916; Burt, 1955; Jensen, 1969; Osborn et al., 1978; Rusthon, 1988; Kamin, 1983; Lynn, 1991; Herrnstein and Murray, 1994).

The old discussion on the genetic or environmental determinism of human behaviour is reconsidered by Wilson (1975), who incorporates the grounds of social sciences to the evolutionary biology through the Sociobiology, defined by him as "(…) the systematic study in all the ways of social behaviour by applying the principles of the neodarwinian evolutionary theory, and considering the behaviours like phenotypic characteristics subject to natural selection". The theoretical speech of Wilson – which includes some undoubtedly interesting positions – taken to its last instances by his followers outlines the rigid genetic determinism of the human behaviour, and for this reason, it has a strong ideological content with a clear message: the social order is the result of our genes and, therefore irremovable, connected for many aspects to the scientific racism. This idea generated, some time ago, an interesting and wide debate (Wilson, 1971, 1975; Shallins, 1976; Gould, 1981; Lumdsen and Wilson 1981; Jaquard, 1983; Lewontin, 1984; Ayala, 1985).

We understand that human behaviour is "(…) the group of motor and/or mental activities resulting from the ability of simulation of the real world in the mind, that demands the conceptualisation and the taking of decisions, that is to say, an intelligent, flexible behaviour, based on the communication and depending on the technology that is expressed in numerous social groups whose individuals maintain complex relationships among them" (Foley, 1991). Therefore, human behaviour is neither an unitary concept nor a objectively measurable quantity; there are many types of different behaviours, from the most instinctive to the most elaborated social ones.

In general, the most instinctive rules of behaviour – mostly shared with other species of primates and mammals (as the nutritional behaviour of the new born, the co-operative behaviours, the aggressive behaviours, the reproductive behaviours, and so on)- are regulated by the limbic system, the oldest part of the brain, and are strongly automated answers in front of the environmental stimuli. On the contrary, the most sophisticated behaviours (the

oral communication, the precision movements of the hand, and so on) are regulated by the areas of most recent evolution of the brain cortex, that are genetically programmed to take, to process and to file environmental information, to allow a continuous learning and to elaborate new intelligent answers in front of the environmental change; in addition, these areas also complete or modify some of the instinctive behaviours regulated by the limbic system.

The genes are at the base of behaviour, as of all our specific characteristics, but it is advisable to describe the complexity of the genes' expression in order to tinge that statement, and to be able to understand Lauleza (2001) when he says that "the genetics has not rescued the scientific racism, it has buried it in the past".

FROM THE GENOTYPE TO THE PHENOTYPE

All our genetic information is contained in the DNA, distributed in 23 couples of nuclear and one mitocondrial chromosomes. We know that our nuclear chromosomes have "*only*" about 35,000 genes coding proteins, which hardly represents 3% of the total DNA contained in the chromosomes. The rest of the genetic material contains information for the control of these codifying genes (each gene has at least five control regions that, in a coordinate way, determine when the gene should be active and the frequency with which it should be transcribed) and for the control of the replication of the DNA itself. However, the most part of the DNA is constituted by an enormous quantity of sequences repeated in tandem, called – according to the authors – repetitive, selfish or garbage DNA. This selfish DNA is usually named satellite, minisatellite or macrosatellite in function of the number of pairs of bases that are repeated in each sequence and the number of sequences that are coupled in tandem. The mini and microsatellite fractions of the DNA have very high mutation rates, resulting in a great variability inside the populations; because of this some of these sequences are practically unique, allowing the identification of the individuals. Immediate applications in forensic medicine and for the scientific policy using DNA were developed, although we already knew that the individual identification could be carried out using morphological traits (fingerprints) and it could equally be done with some biochemical characters, as certain particular oligosacharids which compose woman's milk.

All this complex genetic information filed in the DNA has to be translated and functionally transformed into proteins to produce single individuals that form human populations, and that are born, grow, reproduce and die under variable environmental conditions. In the genetic language, this implies the activation of the gene through the control region, the transcription into transcribed-RNA, the elimination of the gene's regions that do not code proteins (cut and junction) forming the messenger-RNA, the translation of the messenger-RNA's information to protein chains and, finally, the curling of these chains to form the complex three-dimensional proteins, ready to carry out the function that they have been assigned. The spectacular advances of the genetics (Dulbecco, 1999; Strachan and Read, 1999; Ridley, 2001) evidence the great diversity and complexity of the genes' action to build phenotypes. In this way:

- All the cells of the organism have 23 pairs of nuclear and one mitocondrial chromosomes, with the same genes, but not all the genes are expressed in all the cells.
- Not all the structural genes form continuous sequences of codons: many of them have sequences of repetitive DNA.
- Not all the genes have a fixed place in the chromosome: some, as those of the immunoglobulings, are jumping genes that get shaped when they act, as an answer to an environmental stimulation (an infectious agent).
- Not all the genes are recipes of proteins: some are transcribed into RNA, but they are not translated into proteins.
- Not all the reactions are catalysed by proteins: some are catalysed by RNA.
- Not all the proteins come from a single gene: some are formed by the combined action of several of them.
- Not the whole DNA is formed by genes: the most part of it constitutes a jumble of repetitive and random sequences that are rarely transcribes: the selfish DNA.
- The expression of the genes can be sabotaged by environmental factors (example: the rubella virus, mediations like thalidomide), producing malformed phenotypes, especially in the very early phases of the embryonic development; but it also can be modified by situations of nutritional stress during the postnatal development, altering the dynamics of the development and the resulting phenotypes.

In other words, the information contained in the DNA is only a guide for the final phenotype.

The DNA codes a complex plastic system that responds in different ways to the demands of viability. Lasker (1969) called *plasticity* this capacity of individual answer to the environment throughout the life cycle, that manifests itself especially in the adjustment of physiologic and behavioural answers during the growth and development period which, depending on the environmental circumstances, they will shape the expression of the genes through different "development channels". The term *ecosensitivity* is also often used to express this capacity which depends on the intensity and duration of the environmental stimuli, and shows a great individual, sexual and ontogenetic variability. (Wolanski, 1980; Bernis, 2002). Very early, Waddington (1957) proposed the term "epigenetic landscape" to explain the loss of plasticity while progressing in the life cycle, describing this process in a graphic way, as a relief with a series of valleys of different aspect that represent alternative development channels that that can be followed for example, by certain cellular groups, by different patterns of growth, or by the conformation of particular behaviours. In the highest part of the landscape there is a ball that can slip from a valley to another, and depending on the way that it takes, it will determine a different cellular differentiation. In this way, in the first stages of the development, it is easier for the ball to stray from a channel to another, but as the development advances along one of the channels, it is more difficult to deviate to an alternative one. The same idea is good to describe the channels of ontogenetic development through which the vital cycle can be developed in function of the environment in which they are expressed. The keys to accurately understand these mechanisms are in the genetics of the development (Tanner, 1992; Tautz and Schmid, 1998; O'Rourke, 2000).

The evident result of our capacity to get adjusted to the environment is manifested in phenotypic quantifiable changes with the time, known as *tendencies* or *secular changes* in the biology of populations. The changes in life conditions (nutrition, children free from work, reduction of physical activity, control of infectious illnesses, and so on) have determined fundamental changes in the development and growth patterns in Western populations, with multiple phenotypic manifestations: an earlier sexual maturation (about 4 years in five decades), the increase of height (about 10 cm in five decades) or the increase of the body fat depot (quantifiable through the increase of the BMI).

But also the mentioned environmental changes – together with others as the obligatory schooling, the improvement of the education quality, the extension of the audio-visual aids, and so on – have also determined the increase of the Intellectual Coefficient (whoever measures it) during the last years (about 3 points per decade, Neisser, 1997). This fact invalidates the pessimistic forecasts carried out by the main early anthropologists and the Victorian eugenicists, who predicted a decrease of the *intelligence* due to the higher fertility in the more disadvantageous social classes who were supposed to have lower intellectual qualities.

FROM THE PHENOTYPE TO THE GENOTYPE

The approach to the human biological variability began using visible morphological traits that, very early, were associated to behaviours and personality characters, marking Raciology forever and generating a debate – still opened – on the biological meaning of the word race (UNESCO, 1952; Bogin, 1998; Bouchard et al., 1998; El-Moalem et al., 1997; González, 2002; Egocheaga, 2002; Ketia and Boyce, 2001). Between 1950 and 1980, the phenotyping techniques of diverse plasmatic and cellular proteins were developed (blood groups, haemoglobins, HLS antibodies, and so on), which, together with the application of complex statistical techniques, the development of genetics and computer science, allowed to understand not only the complexity of the structure of the genes and of the operations they carry out, but also to study other phenotypic traits, different from the traditional morphological ones. They also permitted to estimate biological distances between populations, so much for the traditional morphological traits as for the multitude of new protein polymorphisms, applying complex mathematical models to big databases.

The idea of having access to the proteins, "direct product of the genes", produced many initial expectations since almost everything in the body, from the hair to the hormones, is made of proteins or manufactured by them, and have the advantage of being "objective racial indicators" since they are not marked, as the morphological traits are, by previous prejudices (Boyd, 1964). Finally, from the 1980's, direct analysis of the DNA was achieved, with the identification and localisation of its sequences that – it was already noted – are distributed in 3% of the genes codifying for proteins and in 97% of the pseudogenes, the regulator genes and the multiple variants of repetitive DNA, some of whose

fragments have shown to be extraordinarily prolymorphic. With this new battery of data, the bioanthropologists and the human geneticists have been using for years the possibilities of the direct analysis of the genes (DNA) to establish the origins of populations and their biological affinities, the times of coalescence, the history of the prehistoric and protohistoric migrations of the human groups. It is even possible to determine the relative contribution of men and women from the past generations to the gene pool of the current populations – taking into account that mitochondrial DNA, transmitted only by women and the Y chromosome, transmitted only by men (Hammer and Zegura, 1996; Underhill et al., 2000).

From the evaluation of the morphological and biochemical traits' polymorphisms or of the DNA, the following conclusions can be derived:

- populations do not differ to each other because they possess single different genes but because they share the same genes with different frequencies
- the genetic variability inside the human groups classified as races is much higher that the variability detected between the different established races
- the polymorphisms of morphological traits as those of biochemical characters used for racial classifications represent the phenotypic expression of a small fraction of our DNA. In both cases, the phenotypic expression of polymorphic genes is used, although approximately 75% of our genes is not polymorphic
- the groups of populations constructed by applying biological distances on morphological traits and on biochemical characteristics do not necessarily agree with the traditional *racial* classifications
- associations do not exist between morphological traits (for example, the skin colour) and behaviour characteristics or intelligence
- racial classifications vary depending on the used featured (morphological and biochemical, or DNA)
- biology and culture are the base of the resemblance and differences between populations. The culture then classifies those similarities and differences in arbitrary categories named races
- the spectacular advances of genetics and human biology confirm what we already know: the term race, applied to humans, lacks of all biological meaning, it does not reflect any biological meaning or affinity nor it is equal to subspecies. It is, simply, a label put on in function of some morphological trait, visually identifiable (frequently only the skin colour)
- the use of a "politically correct" language has determined that, nowadays, the terms race and ethnos are frequently exchanged in the academic world as in the popular language, what is rather confusing (Poldnak, 1989; Ketia and Boyce, 2001)
- in any way, the fundamental contribution to the study of human biological variability does not consist in classifying but in establishing population affinities, in reconstructing the history of human groups and ecosystems that they have occupied, in understanding their patterns of development, of reproduction and of ageing, in identifying their migrations and the constant fusions of their genotype complexes; in summary, in understanding the history of the *racial* integrations that is the Humanity's history (Dyer, 1974)
- for all these reasons, and because of the perfidious use of the word race, it has been repeatedly proposed to substitute it with *population* which has a precise biological sense. However, the experience demonstrates that it is difficult to eradicate the term race, due to its tradition in the history (Pereira, 1977; Tomé, 2001), to its use in the social sciences (for example, when it is used as census information), and even its legal crystallisation (for example, the laws of some states of the USA consider the definition of different races). In this social context, race is defined as the humanity's sector whose members can be identified by the possession of distinctive physical characteristics, i.e., it maintains the initial typological concept, fundamentally based on the colour of the skin and in the social perception of that pigmentation. In this way, in the USA all the hybrids of European and African are considered Black, independently of each parent's contribution, while in South America, it exists a long tradition of identifying "mestizo groups", with an enormous wealth of terms to name all the variants. In the Museum of American, in Madrid, it exists an interesting collection of anonymous paintings coming from New Spain that exemplify the society, hierarchized in castes, identifying up to 16

social groups in function of the colour of its skin. (figures).

RACE, ETHNIC GROUP AND SOCIETY

We can close the circle stating that, although the cultural diversity cannot be explained through biological (racial) differences between populations (Boas, 1948; Dobzahansky, 1973; AAPA, 1996), the opposite it is certain; that is to say, cultural diversity – in social behaviors and systems of values– generates biological differences (fundamentally in those aspects of behaviour related to the reproductive and nutritional patterns, and children's nursing), since they determine the genetic structure of the successive generations, the differential expression of the genes in the individuals during the ontogenesis, our potential of growth as a species and the state of health and disease of the populations (Bernis, 1991,1999, 2002).

These social behaviors are linked to the ethnical identity of the human groups – just as their language and their way of dressing, the colour of their skin, or the morphology of their faces – with the evident difference that social behaviors can change rapidly, even throughout the vital cycle of the same individual, whereas the morphological characteristics can not. In this way, on one hand, when normal people define themselves as members of a race they do not follow a formal taxonomy, but their concept of race directly comes from the society – which, in its turn, take and interpret it like "science" – whereas, on the other hand, descendants of ethnic minorities that are completely integrated in the dominant culture (like the French descendants of Maghreb people, or the Afro-Americans) are identified from the outside, like the *others*, by their aspect, their biology. In short: the ethnicities or identities get racial in literal sense, and this causes the social conflicts to become racial conflicts.

In a different degree, all the societies are multiethnic, with more or less wide moments of coexistence, and with their own history of relation / domination of some ethnic groups on others; this conditions their current situations of coexistence or conflict, the perception of some groups by the others, and also the perception and the relationships among the human groups, the international organisms and the scientists. In this sense, all along the human history they have formed two main sectors of population: those that move to geographical and culturally different places, as conquerors, colonizers or emigrants for economic reasons, and the indigenous, conquered groups that remain in the lands of their ancestors (let's think of the recent history of the two Americas). The considerations of historians, intellectuals, politicians and other important people of the 18th – 20th centuries on the reasons of some human groups' deserve some comments, but they fall outside of our field. Let us only mention two illustrative publications one coming from genetics (Darlington, 1964), and the other from Physical Anthropology (Schwidetzky, 1955) reflecting to a great extent the admixture between scientific knowledge, ideology and the reflection of the social perception of that time on the topic.

The indigenous groups – as immigrants, for socio-economic reasons –have been, and they continue being, object of interest and of study for anthropologists and ethnologist, but they have also been, and they continue being, the main aim of racial and xenophobic discrimination, with all the emotional, social and political problems that this causes.

The indigenous groups gather about 300 million people at the present time, and they live as minorities in the lands of their ancestors conquered and colonised by populations of different ethnic and geographical origin. In 1920, representatives of these groups began a long fight for the recognition of their rights, their patrimony and their cultures. In 1977, they were recognised by the United Nations and other international organisms. The period between 1995 and 2004 was established as the international decade of the world indigenous populations, with the aim of "(…) the promotion and the protection of the rights of the indigenous populations and their capacitation to choose the options that allow them to preserve their cultural identity, without stopping to participate in the political, economic and social life, with a full respect for their cultural values" (United Nations, 1998).

It is also interesting to consider their relationship with the academic and scientific world, through their opposition to the development of the "Project of genetic diversity of the human genome", proposed as a subproject of the "Human Genome Project" and very interesting for the basic and applied sciences. Their denial to participate in that project lies on the conditions that they would have liked to impose for its financing. The idea was to notably enlarge the knowledge of the DNA variability in our species, since at this moment, the studied samples correspond basically to some 300 people mostly of European origin. The promoters of the project

proposed a list of 500 aboriginal populations, selected in function of several *ethnohistorical*, archaeological and linguistic approaches. As a compensation, besides the benefits derived from the knowledge of the genome of these populations for their health, a technological transfer and a biochemical formation in the genomics, for example, was offered. In 1995, the project was put on the back barner because the indigenous groups selected – aside the mistrusts on the business operating regarding the final use of tissues collected, the pharmacological patents and some other questions –requested, without success, that the expected resources for the project were assigned for the improvement of the economic, social and environmental conditions of the natives in their natural environments (Cavalli-Sforza et al., 1991, 1994; Piazza 1997).

The immigration has been a reality in the creation of the modern Western states (just think about France or United States), in their reconstruction after the Second World War and more recently in the contribution to their economy, because the immigrants are carrying out multiple professions that have no longer attractiveness for the natives of the receiving country. This growing migration escaping from the misery produce some nuclei of ethnic minorities coming from poor countries, with a quick demographic growth and, frequently, with colonial links with the countries of destination. These minorities, besides being physically and culturally "different", frequently claim their rights to maintain their differences and their ethnic identity, and this exacerbates the outbreaks of racism and xenophobia, more and more frequent in the current world.

The origin of the immigrants and the personal, social and political problems associated to their situation make especially interesting the mentioned experience of the indigenous human groups whose organisation and models, taken from the recommendations of the United Nations, as the one expressed above, could be used as a model by the minorities of immigrants, and should be known and kept in mind by the political and social leaders of the countries of destination. The claiming of fundamental aspects of their ethnicity, by many of these immigrants, is an additional conflict linked to the situation of illegality, unemployment, and so on.

In this sense, it is interesting to note the proposal of a new criterion to define the ethnicity, with which it is intended to replace the traditional ethnic identity with a genetic identity directly read on each individual's DNA, building, like Brodwin (2002) says "(…) more powerful essential and captivating identities that the traditional ones of the collective identities derived from the political fight and of the agreement that unifies the contemporary studies about race, ethnos and nationalism". It – seemingly already claimed by some Afro-Americans – has immediate legal, social and political implications, besides being very risky, since different ethnic groups differ in the frequency of the diverse models of DNA, and we still lack of reference models for all the populations.

In short, the knowledge on the genome is becoming more and more a basic element of the relationships between people and institutions, tribunals, patterns, sanity, illness insurance, ethnic identification, and so on. This situation, besides the updating, in the daily language, of the concepts of race, ethnos and other derived words, urgently requires a wide debate among the civil society, the academic world, the legislators and the social and political institutions (Lewontin, 2001). As anthropologists, we have the ethical responsibility of actively participating in this debate, to lead it, to let all these aspects be known in their academic, claiming and social characteristics, to mediate on them, to discuss and to present them in different forums, especially between students' and youth's sectors; in this way we can take a steady position in agreement with the science and with our principles, in a time where racism and xenophobia are increasing in a worrying way, as the claiming of the ethnicity is.

KEYWORDS Racism. Demography. Migrant

ABSTRACT Perhaps the oldest ethic problems related with human biology and society, are those related with racism and ethnicity. A lot of suffering has been caused by racial prejudice, and by ethnic intolerance. The better understanding of the Human genome, gives both new arguments to reject racial prejudices, but also new challenges. The need to develop a new ethical, legal and political frame for individuals and populations to relate with institutions, court tribunals, sanity, illness insurance, ethnic identification etc., is an urgent responsibility of anthropologists and geneticist . The road from genotype to phenotype is review in the light of the recent knowledge of genetics and plasticity; it is also remembered that the initial approach to the genotype, begun all the way round, that is, it was inferred from morphological, physiological and behavioural traits. The influence of this initial approach, in the context of the typological thinking , is still very clear in different authors. Even the biological meaning of "race" is currently open to debate. Because all societies are multiethnic in different degrees is important to know the mutual perception, and the relations of dominance or equity among them. Through the examples of indigenous groups, and migration minorities, is stressed the necessity of an open discussion both on the ethics of race and ethinicity, and on the new legal possibilities open by the knowledge of the genome. As anthropologist we have the ethical responsibility of actively participating in this debate, and even to lead it, in a time where racism, and xenophobia are increasing in worrying way, as the claming of ethnicity is.

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