

**Parallel session 4: Cultural identity implications in genomics research and communication.**

**MEDIA COVERAGE OF HUMAN GENETICS IN SPAIN: THE CASE OF  
*EL PAÍS* (1976-2002)**

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**Abstract**

Public representations of science are influenced not only by research itself, but also by the cultural context where they develop, and both science and its popularisation are laden with cultural and ideological values. In the Spanish public sphere of the late seventies and early eighties, when the country was defining most of its public policies after 40 years of dictatorship, most of the actors were very aware of the political values involved in human genetics (which they identified with right-wing positions) and preferred environmental and psychological explanations for most behaviours and diseases. But coinciding with the growth of Spanish participation in genetic research and the biomedical industry, the critics vanished. It was not just a shift among scientists. At the end of the century, journalists —closer to biological scientists than before, accepted with no questioning, the experts' discourses and presented this scientific field in very laudatory terms.

**Key words:** Scientific journalism, human genetics, history

**Context**

Historical and sociological studies on science popularisation show how this process cannot be interpreted just as a diffusion of expert knowledge to broad audiences. On the contrary, diverse interests of many different actors shape media images of science, competing with each other to gain public support. In the case of human genetics, actors are not only geneticists; other professional groups like politicians, psychologists, philosophers, business men, citizens and family doctors, conveyed their peculiar representation of human genetics, while journalists had an active role choosing which theories and which people they paid attention to.

On the other hand, recent studies about popular accounts of human genetics have not reached a common view: while some specialists argue that the public image of genetics is becoming less determining, others maintain that an overvaluation of genetic factors in medical, behavioural and biological events is taking place.

Only particular case studies can reveal both the cultural determinations of science popularisation, and the degree of “genetisation” –if such a thing exists- in a particular local context.

### **Objective**

The objective of this research is to reveal the Spanish peculiarities of the public account of human genetics in the last quarter of the twentieth century, as it appeared in the pages of the newspaper with greater circulation in the country.

### **Methods**

In resorting to *El País*' database, a comprehensive corpus of more than 1,200 documents containing the words 'genetics', 'genome' 'DNA', and 'gene' was made and analysed with particular attention to the following themes: genetics as pure science and the Human Genome Project, genetics and disease, genetics and behaviour, ethical and legal implications of human genetics, and genetics as metaphor beyond scientific contexts. For the analysis, both qualitative and quantitative tools were used.

### **Results**

What has been observed over the 27 years covered by this study, is an evolution from the image of human genetics as a secondary science, opposed to psychological and environmental explanations and full of ideological prejudices, to the idea of a fundamental field with positive medical and social consequences, which ought to be promoted and served to gain public respectability.

During the first years of the period studied, the use of ideological arguments was common among Spanish public actors, especially psychologists and psychoanalysts that perceived that geneticists were occupying their therapeutic fields. These professional groups responded linking genetics with eugenics and reductionism. During these years, everyone seemed to be aware of how any conception of disease and behaviour influenced the definition of public policies in education and health, a crucial problem for Spain in those days. At this stage, ethical and philosophical implications of human genetics were treated overtly, and in very critical terms.

This situation changed dramatically in the late eighties and nineties, when the country entered a more stable political phase. Spanish research in human genetics grew and became more visible. The first prenatal and diagnosis tests became available in Spain and new scientific journalists, very close to the scientific community and shared values and interests, arrived to *El País*. Coinciding with a more aggressive communication campaign from scientists and its institutions, texts full of technical details presented science as a neutral activity, in which only experts could have a relevant opinion, but whose consequences were at a different level from scientific research. The coverage began to forget the economical, political and ethical dimensions of human genetics, stressing the hopes for magic cures for almost all human diseases, while discussions about genetic determinism

or the concept of human nature derived from genetic knowledge were relegated to marginal spaces, like letters to the director. Spanish scientists discourse merged into American discourse. But on the other side of the Atlantic Ocean these discourses were part of a strategy to gain public funds for an extremely expensive research; in Spain the same arguments were used to present the local scientific community on a level with their American colleagues.

The editorial position of the newspaper itself shifted during the period studied here: it shifted from a conception of science and technology as an integral element of society, and thus, as a field in which everyone had the right to express its opinion, to an extreme defence of scientific research claiming for public support and for the isolated advance of science.

### **Conclusions**

Scientific popularisation is a historical event, and as such, it is influenced by its cultural, social and economical context. Although in the last quarter of the twentieth century a homogenisation of scientific popularisation took place, in every local process, numerous particularities can be observed.

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