

# Editorial

## *Behavioural genetics of Italians?*

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*Behavioural genetics is a difficult and slippery field, particularly when it is applied instead that to transgenic mice or inbred flies, to human beings.*

*Several years ago the well known science journal Behavior Genetics published a questionable paper about the supposed genetic superiority somehow related to the intelligence performance of black and white people.*

*The scientific community of geneticists, biologists, psychiatrists, anthropologists and sociologists strongly reacted to this assumption and this reaction led to a lively debate which eventually culminated in the foundation, between Zurich, Paris and Rome (at the Italian National Institute of Health, ISS), of a new neural genetics society, the European Behavioural and Neural Genetics Society (EBANGS), of which I happened to be Secretary for almost a decade. EBANGS was founded during a ten-day NATO school which was held in September 10-20, 1994 in the beautiful and sunny village of Maratea, on the Southern Mediterranean coast of Italy. The Society turned its name in International Behavioural and Neural Genetics Society (IBANGS); its journal Genes, Brain and Behavior presently reached its eighth year of publication (IF 3.89 in 2008).*

*I was really surprised to read in the paper by Richard Lynn recently published in Intelligence [1], that apparently there is a marked North-South difference in IQ in Italy.*

*According to this paper, regional IQs in Italy seem to decline stably throughout the Central Regions and into the South, reaching a low of 89 in the most southerly Region of Sicily.*

*Such a statement, opening the discussion of this paper, hypothesizes the existence of a North-South gradient of IQ in Italy, supported and quantified by the correlation of 0.963 between regional IQs and latitude.*

*Even more surprising is the proposition that the above-reported North-South gradient may explain "much of the difference in economic development" between North and South areas in Italy.*

*In our Institute, neuropsychologist Giorgio Bignami selected in 1965 two strains of laboratory rats which became famous in the scientific literature as "Roman low avoidance" and "Roman high avoidance" strains based on their capability to learn either rapidly and efficiently (high avoidance) or slowly and inaccurately (low avoidance) to escape from a mild foot-shock signalled by a flash of light [2].*

*Bignami himself with the neurobiologist Steven Rose (who spent a period as PhD student in the ISS Laboratory directed by Nobel Laureate Ernst Boris Chain) arranged the Italian translation of a book which contained important reflections on the way base pairs forming genes lead to a behavioural phenotype both in invertebrate and vertebrate animals and in humans under highly diverse social cultural conditions [3].*

*The genetics of behaviour is still a lively field of research in our Institute since then.*

*However if the simple behaviour of a laboratory albino rat can be associated to a rather limited number of genetic factors, the complexity of the human species does not allow to come to such drastic and reductionistic conclusions.*

*Presumably the paper by R. Lynn will open a lively debate.*

### References

1. Lynn R. In Italy, North-South differences in IQ predict differences in income, education, infant mortality, stature, and literacy. *Intelligence* 2010;38:93-100.
2. Bignami G. Selection for high rates and low rates of avoidance conditioning in the rat. *Anim Behav* 1965(13):221-7.
3. Bignami G, Terrenato L (Ed.). *Il gene e la sua mente. Biologia, ideologia e natura umana*. Lewontin R, Rose S, Kamin L.J. Not In Our Genes: Biology, Ideology and Human Nature Random House. Milano: Mondadori (collana Biblioteca della EST); 1983.