

## Giuseppe Sergi. The portrait of a positivist scientist

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**Summary** – *Giuseppe Sergi (1841-1936) was one of the most important anthropologists and psychologists of the age of positivism and this article focuses on three domains of his scientific research: degeneration, eugenics and race. His concept of degeneration is defined as the development of special forms of human adaptation to the environment. This issue is closely related to his theory of the “stratification of character”, which had a profound impact on Italian psychiatry and criminal anthropology in the late nineteenth century. Thus, special emphasis is placed on the differences between Sergi and Cesare Lombroso regarding their definitions of criminality and genius. Concerning eugenics, the article analyzes Sergi’s key role in the Italian context, discussing his eugenic program based on both repression and education. His remedies against the spread of degeneration included not only radical and repressive measures, but also the improvement of popular education and the living conditions of the working class. In the field of physical anthropology, the article examines Sergi’s morphological method of classifying ethnic groups. Although sharply criticized in Italy and abroad, this method had two major effects. First, it led to the definitive split between Sergi and Paolo Mantegazza and to the foundation of the Società Romana di Antropologia in 1893. Second, it was the starting point for Sergi’s theory of Mediterranean “stock”, which claimed that European populations were of African origin in contrast to contemporary theories of Aryan supremacy. The article ends with a look at the heated debate over Sergi’s Mediterraneanism during the period of Fascism.*

**Keywords** – *Giuseppe Sergi, Physical anthropology, Degeneration, Eugenics, Società Romana di Antropologia, Morphological method, Mediterranean race.*

### Life and Work

“Prof. Sergi senior: a face like a friendly 70-year-old baby; chubby little cheeks, framed in white beard, little hands. The sons hold the father in extraordinary reverence. They are so anxious not to disturb him that when they want to speak to him alone they join the queue of the other visitors in the Anthropological Institute. They idolize their mother. She is strictly devout, the sons, like their father, are atheists” (Musil, 1999, pp. 161-162).

This is how the Austrian novelist Robert Musil recalled Giuseppe Sergi in his diaries, when he met him between late September and early October 1913 during his stay in Rome. At the time, Sergi was widely known in Italy

and abroad as a prolific scientist. His interests included anthropology, psychology, craniology, criminology, philosophy, pedagogy, sociology, and biology. Moreover, his anthropological views had sparked interesting debates and controversies within the scientific community. Musil’s portrait of Sergi’s family was particularly caustic. Sergi’s eldest son, Sergio, is described as “a smart young Roman hackney-cab driver”, whose “soul seems to be that of a seventeen-years-old” (Musil, 1999, p. 157). His brother Quirino was an “idealist”, engaged to an older woman, and the two brothers kept their sister Maria like “an old songbird in a cage” so that she would remain “pure” and “untouched by life’s darkness”. She spent her time playing piano for hours and the neighbors considered her an “idiot” (Musil, 1999, p. 162).

Sergi, for his part, was a “freethinker” and “anarchist”, imbued with prejudices against women (Musil, 1999, p. 157).

Despite his unflattering opinions, Musil emphasized an important aspect of Sergi’s personality, that is, his independence of thought. From a scientific perspective, Sergi was openly critical of several prominent scholars of his time: Cesare Lombroso, founder of the Italian school of positivist criminology, Paolo Mantegazza, the doyen of Italian anthropology, and the palaeoethnologist Luigi Pigorini, noted for his studies on the *terramare*, the pile-dwelling settlements in the Po Valley.

Sergi was born in Messina on 20 March 1841. His mother Alessandra Brigandì was a housewife and his father Paolo Sergi was a municipal worker. We do not have much information about his childhood and youth but at the age of thirteen, his father and a brother died in the cholera epidemic, which had decimated the local population. After that, as his son Sergio Sergi wrote later, he was “educated to the school of pain” and “had his mother as model and loving guide” (S. Sergi, 1937). After graduation, Sergi enrolled in the faculty of law at the University of Messina, but interrupted his studies in 1860 to join Garibaldi’s *Camicie Rosse* (Red Shirts) at the battle of Milazzo. Nevertheless, he obtained a diploma to teach philosophy and taught at schools in Noto, Messina and Benevento. In the meantime, he learnt Greek and Sanskrit and started studying comparative philology and ancient philosophy, especially pythagorism. In 1868, he published his first philosophical work, *Usiologia ovvero scienza dell'essenza*: the word *usiologia* was a neologism from the ancient Greek term *ousia*, which means essence, substance (Sergi, 1868).

Besides his interest in philosophy, Sergi dedicated himself to psychology adopting a materialistic approach by reducing psychic phenomena to physiological factors. Between 1873 and 1874, he wrote a two-volume handbook, *Principi di psicologia sulla base delle scienze sperimentali, ad uso delle scuole*, in which he explained the principles of experimental psychology (Sergi, 1873, 1874). In 1876, Sergi wrote to the Minister of Public

Education, Ruggero Bonghi, requesting the creation of a professorship of psychology in Italian high schools and universities (Sergi, 1876). Although his proposal was not accepted (the first professorship of psychology was not created until 1905), Sergi obtained a private course of psychology at the University of Messina for the academic year 1878-1879. In 1879, he published his new psychology handbook, *Elementi di psicologia*, which was translated into French ten years later with the title *La psychologie physiologique* thanks to the work of Théodule Ribot (Sergi, 1879, 1888a). This is proof of his growing reputation abroad.

In November 1879, he began to teach theoretical philosophy at the *Accademia Scientifico-Letteraria* in Milan. Here his colleagues harshly criticized his evolutionary ideas. Tired of this hostile work environment, Sergi decided to apply for a teaching position in philosophy and anthropological psychology at the University of Bologna. Although he had never published anything anthropological before, the academic commission decided in his favour and in October 1880 he took up the chair of anthropology in the faculty of literature and philosophy.

However, he did not receive a hearty welcome in his new institution either. From the outset, Sergi complained that he was considered a mere “naturalist” and that he did not have sufficient funding for his anthropological research. Therefore, in 1881, he decided to move to the faculty of natural sciences. Soon after, he became a member of the editorial board of the *Rivista di Filosofia Scientifica*, founded by the psychologist and anthropologist Enrico Morselli. In the same year, he made his contribution to the spread of Herbert Spencer’s theories in Italy writing the foreword to the Italian edition of *The Study of Sociology* and translating *The Data of Ethics* (Sergi, 1881a,b). Disappointed that he had not been awarded a professorship in experimental psychology at the University of Bologna, in September 1884 Sergi moved once more, this time to the University of Rome, where he taught until his retirement in 1916. This was probably his most productive period as one of the preeminent

scientist of the positivist school. He formulated his principal theories on degeneration, human emotions, classification of crania and Mediterranean populations, and wrote his major scientific works. In Rome, he demonstrated his organizational skills and created both an anthropological laboratory, which was equipped with a large number of psychological instruments, and a small museum with skeletal exhibits (Manzi, 1987). Sergi obtained permission to set up the laboratory and the museum near the Church of San Pietro in Vincoli, in the School for Engineers (Sergi, 1916b). In 1886, Francis Galton, Charles Darwin's cousin and a pioneer of eugenics, visited his laboratory and was deeply impressed by the quality and quantity of the instruments. In particular, Galton tested the Hipp chronoscope, used to measure the reaction time to external stimuli. After 1886, Galton returned to Rome several times. His last voyage dates to 1903 (Sergi, 1911b). Sergi was also a guest at his home in Rutledge Gate, London.

In September 1887, the anthropological laboratory moved to the Collegio Romano (an old Jesuit school), next to the National Library and the Liceo Visconti, where it remained until it was relocated to the main campus of La Sapienza University in January 1938 (Comas, 1978; Correnti, 1984-1985, 1985). The rooms at the Collegio Romano were particularly austere: Sergi's office only had a "humble desk" and a "large portrait of Charles Darwin" on the wall. Couches and armchairs, "symbols of relaxation", were banned (S. Sergi, 1938-1939). The historian of religion, Raffaele Pettazzoni, who attended the Collegio, found that its dark corridors recalled the Christian catacombs, and its bleak rooms resembled ancient Mithraea (In memoria, 1937, xxxvi).

By the 1880s, Sergi had started to work on degeneracy theory and anthropological criminality, and made a critical appraisal of the doctrines of Lombroso. In 1885, Sergi took part in the First International Congress of Criminal Anthropology held in Rome, during which he presented his classification of types of degeneration and suggested the creation of a museum of criminal anthropology to collect skulls, brains, and photographs of

delinquents (Sergi, 1886-1887). In 1889, he published his seminal work *Le degenerazioni umane* printed by the leading positivist publishing house, Dumolard (Sergi, 1889a).

In December 1889, Sergi finally realized one of his dreams when the Minister of Public Education, Paolo Boselli, authorized the creation of the first official laboratory of experimental psychology in Italy, at the University of Rome (Sergi, 1894c). The laboratory was to carry out research on psychic and natural phenomena, contributing to the advancement of psychological science. This research center trained an entire generation of Italian psychologists including Sante De Sanctis, who in 1905 was the first to hold a chair of psychology in Italy at the University of Rome, and Francesco Umberto Saffiotti, who developed psychological research by studying school children, soldiers and factory workers. In 1894, in the volume *Dolore e Piacere*, Sergi presented a theory of human emotions, where the latter were the result of the perception of physiological changes in the body (Sergi, 1894b). This theory was quite similar to that proposed independently by the American psychologist and philosopher William James and by the Danish physiologist Carl Lange.

After being appointed full professor of anthropology, between 1891 and 1892 Sergi introduced a new method of classifying human skulls and ethnic groups, which he defined "natural" and "morphological". This method – presented in August 1892 during the International Congress of Anthropology and Prehistoric Archeology held in Moscow – was based on the direct observation and analysis of skull shapes, rather than on craniometry and measurements (Sergi, 1892-1893). This reform of craniological classification, along with academic and personal differences, caused his break with Mantegazza. In protest, Sergi created the *Società Romana di Antropologia* in June 1893 (since 1937 the *Istituto Italiano di Antropologia*). The primary and interdisciplinary objectives of the new society were to study the origin of man, the development of his physical features, and his relationship with the environment. By 1891, the *Società Romana* started to publish its proceedings, the *Atti della Società Romana di*

*Antropologia*, which became the *Rivista di Antropologia* in 1911, and the *Journal of Anthropological Sciences*, JASs, as of 2004.

Sergi collaborated with several scientific journals. His interventions were published in the Lombrosian *Archivio di Psichiatria, Scienze Penali ed Antropologia Criminale*, the *Rivista di Discipline Carcerarie* founded by the national prison inspector Martino Beltrani-Scalia, *Vita Internazionale* directed by the later 1907 Nobel Peace Prize winner, Teodoro Moneta, and *Nuova Antologia* directed by the economist Francesco Protonotari. In 1894, Sergi founded a pedagogical journal, *Educazione e Istruzione*, and two years later *Pensiero Moderno* with the statistician Alfredo Niceforo. The latter should have been the official bulletin of the Italian Positivist Society, but both the society and the journal were very short-lived. In 1897, Sergi established the *Rivista Quindicinale di Psicologia, Psichiatria e Neuropatologia*, the first Italian journal to use the term “psychology” in its title, and the *Rivista Italiana di Sociologia* with the jurists Augusto Bosco and Guido Cavaglieri.

In the late nineteenth and early twentieth century, Sergi published some important studies on physical anthropology, which were well received in Europe and the United States. In response to the supporters of Indo-European and Aryan supremacy, Sergi maintained that the Mediterranean races had originated in and spread from Eastern Africa. The analysis of the physical and psychical differences between Mediterranean and Aryan populations led Sergi to discuss two closely related topics: the question of the backwardness of Southern Italy and the decline of the Latin populations, which epitomized the political, social and economic immobility of Italy, France and Spain.

In 1905, Sergi was appointed president of the Fifth International Congress of Psychology of Rome and in 1911 he took part in the First International Races Congress at the University of London (Sergi, 1911c). In the following year, he returned to London at the head of the Italian delegation to the First International Eugenics Congress (Sergi, 1912a). In 1913 on returning to

Italy he established the first Italian eugenics society, the *Comitato Italiano per gli Studi di Eugenia* (1913), with the support of Niceforo and the statistician Corrado Gini, but its activities were soon interrupted.

In 1916, on the occasion of his 75<sup>th</sup> birthday, a special issue of the *Rivista di Antropologia* was published and included articles by Morselli, De Sanctis, the Scottish anthropologist and anatomist Arthur Keith and the English ethnologist Charles Gabriel Seligman. Having reached retirement age, in March of the same year Sergi resigned from the university and became professor emeritus. His son Sergio, who had been chief physician at the psychiatric asylum of Santa Maria della Pietà in Rome, succeeded him as professor of anthropology at the University of Rome.

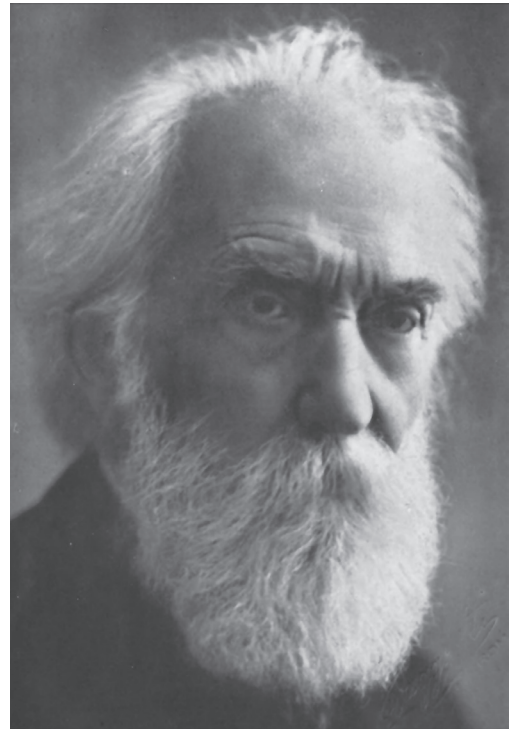
Despite his retirement, Sergi remained honorary chairman of the *Società Romana di Antropologia* and continued his scientific research. During the First World War, he denounced the harmful effects of the conflict on soldiers and civilians alike. As a convinced pacifist, he supported the plan for a League of Nations proposed by the American president Woodrow Wilson in 1918. Between 1920s and 1930s, he focused on the theory of evolution and on the anthropology of Italic peoples (Fig. 1). In 1936, he published his last work, *I Britannici*, in which he tried to demonstrate that the English population also belonged to the Mediterranean race (Sergi, 1936). He died in Rome on 17 October 1936.

### **Degeneration and stratification of character**

In 1857, two years before the publication of Charles Darwin's *Origin of the Species*, the French alienist Bénédict-Augustin Morel defined the concept of degeneration as a “morbid deviation from a primitive human type” (Morel, 1857, p. 5). According to Morel, degeneration was hereditary and could also be triggered by alcohol and opium abuse, poisoning by toxic substances, epidemics, famines or bad nourishment, social circumstances, in particular poverty

and unhealthy living conditions of the working class, lack of resistance to disease, and inborn or acquired pathologies, such as hydrocephaly, convulsions, tuberculosis, deafness, and blindness. As a devout Catholic, Morel considered that even immorality and sexual vices had a degenerative impact on man. Although he was not the first to use the term “degeneration” – which was recorded in medical literature and in seventeenth-century scientific dictionaries, Morel had given the word a pathological and psychiatric meaning (Bénichou, 1983). As a rather ductile and vague notion, degeneration became an enormously influential paradigm in European scientific discourse, encompassing different fields, such as medicine, biology, criminal anthropology, sexology, sociology and even aesthetics – consider, for example, *Entartung*, written by the Hungarian journalist Max Nordau. Thus, in the second half of the nineteenth century, the concept of degeneration embodied political and social anxiety concerning the dark side of progress and a general physical and psychical deterioration of the social body (Genil-Perrin, 1913; Chamberlin & Gilman, 1985; Pick, 1989; Simonazzi, 2013).

In Italy, the interest in degeneration developed alongside the process of unification and the attempts by Liberal governments to resolve pressing social questions, from the backwardness of the South to popular illiteracy. Morselli and Lombroso were the first scientists to adopt the term in their research (Lombroso, 1873; Morselli & Tamburini 1875-1876). However, the real benchmark of the national debate on degeneration and eugenics was Sergi's book *Le Degenerazioni Umane*. The volume opens with a partial critique of the Darwinian theory of natural selection: in the “struggle for existence” some individuals, although weak and less fit, could survive thanks to lower or incomplete forms of adaptation, but they presented signs of physical or psychical degeneration. Among degenerates, Sergi included lunatics, suicides, geniuses, criminals, prostitutes, vagrants, beggars, parasites, slaves and the so-called “*servili*”, i.e. the modern descendants of the Greek and Roman slaves, who submitted voluntarily to



**Fig. 1 – Portrait of Giuseppe Sergi at the age of 89 (From Sergi, 1930).**

the powerful. Sergi distinguished between three forms of degeneration:

- 1) Atavist or regressive degeneration characterized by the reappearance of ancestral or animal characteristics formerly considered normal.
- 2) Primitive or native degeneration due to an incomplete development provoked by hereditary causes or an inability to withstand external conditions in the first months of extrauterine life.
- 3) Acquired or secondary degeneration occurring suddenly in the life of a sane person and with consequences similar to those of precocious arrested development. Among its causes were lack of nourishment, alcohol abuse, psychological pressures and a variety of pathologies, from anemia to the diseases of the nervous system (Sergi, 1886-1887; 1889a, pp. 25-32).



All three forms of degeneration determined serious deviations from normal functions and induced pathological conditions. In addition, any morphological abnormality was a sign of functional or internal degeneration, according to an intimate correlation between structure and function (Rossi, 1987).

In February 1889, Sergi sent his text to Galton with a note (Sergi, 1889c). Sergi drew his attention to the final pages of the chapter on slaves and the “*servili*”, where he quoted Galton’s *Inquiries Into Human Faculty* on gregarious instincts (Galton, 1883, pp. 68-81; Sergi, 1889a, pp. 157-161). During the First World War, Sergi referred to this theory to justify the subordination of the German people to authority and to denounce their blind violence (Sergi, 1916d).

The human character was particularly exposed to the risk of degeneration. For Sergi, character was formed by the stratification of a hereditary or fundamental element and an acquired one (Sergi, 1883a; 1885b). Applying the law of recapitulation formulated by the German zoologist Ernst Haeckel, Sergi wrote that the fundamental element was the result of an accumulation of genetic material inherited over the generations. The fundamental element depended on the environmental conditions in which the ancestors lived and was inborn, whereas the acquired element derived from the interaction between the individual and society (education, job, social relations, and economic status). Using a geological metaphor, Sergi argued that the acquired element overlaid the fundamental bedrock. The most recent layers modified the oldest ones, sometimes in a superficial manner, sometimes at a deeper level, in order to deal with vital needs of the individual and to protect his organism from harmful environmental influences. The acquired structure was fragile and needed time to consolidate, because it had not been an integral part of the human organism since birth. However, it could assume an inhibitory and defensive function repressing fundamental instincts.

Sergi claimed that in civil society, the traces of animal instincts, although smoothed over by education and fear of punishment, had not altogether

disappeared, but survived in the form of residues. These residues could resurface instantly under given circumstances (for instance, the emergence of pathologies), provoking the reappearance of atavistic and deviant behavior, such as madness, criminality and prostitution, that worked against the best interests of the species. These pathological phenomena could cause the complete annihilation of man’s character (called “big degeneration”), or only its partial deterioration (“small degeneration”). There was no chance to restore character after its deterioration or destruction: according to Sergi, “the rehabilitation was an illusion of sentimentalism” (Sergi, 1889a, p. 52). Only degeneration in its early stages could be arrested thanks to education, which could re-establish the equilibrium between the fundamental element and the acquired one, in order to prevent anti-social behavior.

### Sergi and Lombroso

Sergi’s theory of degeneration provoked many objections and reactions. Anthropologists, psychiatrists and jurists were concerned about the originality of the theory and the definition of degeneration (A. Marro, 1887, pp. 153-175; Mantegazza, 1888; Riccardi, 1889, pp. 153-154; Tonnini, 1890). By contrast, the idea of the stratification of character had a strong and lasting impact on both the Italian psychiatric debate and on Lombrosian criminal anthropology. Between 1884 and 1886, the psychiatrists Eugenio Tanzi and Gaetano Riva used Sergi’s model as an explanation of paranoia, considering it a functional psychosis with a degenerative basis (Tanzi & Riva, 1884-1885-1886). Following Sergi, they interpreted paranoid disturbance as memories of previous evolutionary phases. A disruptive cause could break the vulnerable psychical equilibrium and determine the predominance of hallucinating ideas, hidden in the recesses of the mind and inherited from ancestors. Although the two authors did not mention Sergi, the reference to the theory of the stratification of character was evident.

At the same time, Sergi's theory of character gave an original interpretation of criminality (Sergi, 1885c, 1889b). He declared criminality was not only the result of atavism, as Lombroso claimed in the early editions of *L'Uomo Delinquente* (Lombroso, 1876, 1878), but also the effect of pathologies caused by primitive and acquired degeneration. Moreover, there was a close bond between criminality and mental disorder: the predisposition to commit an offence often went hand-in-hand with imbecility, idiocy, hysteria, neurasthenia, moral insanity and other forms of neurosis, as had been demonstrated by the psychological analysis of the prison population (Sergi, 1886). The idea of the stratification of character convinced Lombroso to revise his former opinion. Although atavism remained one of the most common characteristics of born criminals, and was still useful in explaining crimes such as pederasty and infanticide, for Lombroso it was also necessary to take into account moral insanity and epilepsy (Lombroso, 1884, pp. 588-589).

Sergi is often pictured as an active supporter of apologist for Lombroso. This is only partly true: his profound and sincere admiration apart (Sergi, 1908b; 1909a,b), he pointed out some fallacies in Lombroso's views on criminality and genius. As regards criminal anthropology, Sergi rejected Lombroso's key concept of "criminal type" in favor of the notion of the "physiognomy of the delinquent" (Sergi, 1889a, p. 117). The criminal did not exist in the abstract, but only as a concrete criminal with a specific degeneration. Moreover, Sergi challenged the excessive use of anthropometry, claiming that there was no direct correlation between particular measurement and certain kinds of criminal (Sergi, 1890). In contrast to most criminal anthropologists at the time, Sergi did not accept the supposed differences between the born criminal, who was congenitally predisposed to commit criminal actions, and the occasional criminal, whose dangerous behavior was due to external causes. Both born and occasional criminals were driven to commit crimes due to a combination of organic predispositions and exogenous factors

(Sergi, 1889a, pp. 103-105). Albeit with varying degrees of nuance, Sergi had always recognized the great importance of biological factors and the role of the social environment (poverty and malnutrition) in developing the degenerative manifestation of delinquency (Sergi, 1885c). Finally, he refused to equate prostitution with criminality. The criminal jeopardized the stability of society, whereas the prostitute only damaged herself and was not generally harmful for others (Sergi, 1893c). While it is clear that prostitutes were more inclined to commit crimes than honest women, their criminal attitude derived from their inability to withstand the environment and not from a biological predisposition.

Sergi wrote extensively on the topic of genius, focusing on the personalities of the Italian poets Giacomo Leopardi and Vittorio Alfieri, and on the low probability of female genius (Sergi, 1893b; 1898b; 1899a,c; 1900c; 1903b). In his essays, he admitted that the psychical and organic disequilibrium of the genius was due to a degenerative process that prevented the correct and equal development of the different parts of the organism. Men of genius were "non-normal", unbalanced or eccentric people who suffered from "various stigmata of degeneration" (Sergi, 1900c, p. 424). Sergi recognized Lombroso as the first scientist to attempt a complete description and a biological explanation of the nature of genius (Lombroso, 1888). Nevertheless, Sergi did not accept his theory that reduced all the manifestations of genius to epilepsy and unconscious creativity. According to Sergi, the most important degenerative character of men of genius was the "fixed idea", defined as an obsessive thought similar to delirium. Furthermore, the unconsciousness of thought, typical of the epileptic, was not peculiar to the genius. All psychical phenomena, including those of ordinary people, were elaborated in a state of unconsciousness and became conscious only when the cerebral work was completed. The main difference between ordinary people and men of genius was that whereas the unconsciousness looked like "a shallow sea" in the mind of an ordinary person, it was a "sea of unfathomable depth" in the

mind of a genius. Thanks to its depth, it could produce “new and extraordinary” results (Sergi, 1900c, pp. 422-424).

### Sergi's eugenic program

In the last two chapters of *Le Degenerazioni Umane* Sergi dealt with measures to prevent the spread of physical and moral degeneration. In Chapter 12, “La protezione dei deboli”, following Spencer, he distinguished between two types of altruism (Sergi, 1889a, pp. 198-207; see also Sergi, 1885a, pp. 385-399). On the one hand, altruism was a biological aspiration to a general wellbeing that did not conflict with private interests, a sort of moderate egoism and self-preservation; on the other hand, “sentimental altruism” could take the form of private or public philanthropy. Whereas the first form of altruism was helpful for the individual and the whole community, the second was harmful, particularly when imposed top-down. If the State protected degenerates, they could live as economic parasites, detrimental to society, and transmit their flawed genetic material to future generations, dragging down the overall fitness of the population. According to Sergi, social welfare was extremely expensive and would not reduce the number of degenerates. He did not intend to abolish hospitals, asylums or night shelters, but claimed that philanthropy should be cautious, and be realized only within reasonable limits. Factory workers, for instance, should receive decent wages, comfortable lodgings and health care. Whereas habitual criminals and beggars should be left to their own fate because they were unproductive.

In the final chapter of *Le Degenerazioni Umane*, entitled “Rigenerazione”, Sergi specified the meaning and tasks of the process of “regeneration”, i.e. artificial selection as a way to improve the human breed, which would thus avoid the birth of new degenerates and diminish the number of existing ones. In the first case, it was necessary to ensure an adequate nutrition for all, to improve hygiene and housing conditions, to look after the working class, to eradicate hereditary diseases, and

to analyze the influence of paternal and maternal traits on offspring. It was also necessary to develop education by creating professional and technical schools, and to promote scientific culture instead of the humanistic one. In brief, eugenics here took the form of public health and hygiene practices. But what about the existing degenerates? People might be altruistic towards lunatics, the deformed, the seriously ill and young men from degenerate families. As regards criminals, beggars and parasites, their maintenance was too costly for society, and the only solution was to use repressive measures, such as forced work, deportation to desert islands and the prohibition of marriage (Sergi, 1889a, pp. 226-227). All patients suffering from advanced tuberculosis, rickets and scrofula had to be eliminated, although Sergi did not explicitly state what he meant by this (Sergi, 1889a, p. 213). At the end of the book, he admitted the ruthlessness of his eugenic proposals. Thus, it is not surprising that in 1942, the anthropologist Guido Landra, the co-author with Mussolini of the *Manifesto degli Scienziati Razzisti*, described him as “a very radical pioneer of modern eugenics” (Landra, 1942, p. 8).

Over time, Sergi progressively shifted the focus of eugenic intervention, stressing the importance of educational methods rather than repressive measures. He considered that public education since early childhood was particularly effective in eradicating individual degeneration, which derived from harmful social influences. On the contrary, he realized that coercive measures would not bring about improvement of the race (Sergi, 1914). First, sterilization was very difficult to achieve, because it was impractical on a large scale and was banned by the Catholic Church. Second, segregation was rejected because it was not a long-term solution and its real effects were still unknown. Third, the prohibition of marriage between people affected by hereditary degeneration was not a solid guarantee against the more serious danger of illegitimate and sick offspring. Fourth, neo-Malthusianism was not a suitable instrument because sexual intercourse was a natural and physiological necessity (Sergi, 1909c). Worse still, there was no data or



knowledge concerning the inheritance of pathological traits. Sergi was highly sceptical about the application of Mendelian laws to human heredity. He disapproved of both the theories of the English biologist William Bateson, who coined the term “genetics” in 1906, and those of the most important representatives of the biometric school, the physicist and mathematician Karl Pearson and the zoologist Frank Raphael Weldon (Sergi, 1914; 1916a, pp. 79-108, 135-166; 1919b; 1922; 1923; 1929; Volpone, 2008, pp. 183-187; 2011). To sum up, recalling Galton, Sergi sustained that the principal aim of eugenics was to eliminate individuals who were potentially dangerous for society and to take care of healthy people by any means possible. His motto was to encourage the fit to breed and to prevent the unfit from doing so (Cassata, 2011). In the words of Pogliano, he was a “judicious eugenicist” (Pogliano, 1999). Education and repression were simply two sides of the same coin.

After the publication of *Le Degenerazioni Umane*, Sergi played a prominent role in trying to establish eugenics as a discipline in its own right. In July 1912, he led a heterogeneous delegation of anthropologists, psychiatrists, statisticians, demographers, and sociologists at the First International Congress of Eugenics, held in London under the chairmanship of Leonard Darwin, son of Charles. The participation of Italian representatives at the London Congress marked the process of institutionalization of the national eugenic movement (Pogliano, 1984; Mantovani, 2004; Cassata, 2006). In its wake, the first university course of social eugenics was set up at the University of Genova (1912). In 1913, Sergi, Gini and Niceforo created the *Comitato Italiano per gli Studi di Eugenetica* in Rome within the structure of *Società Romana di Antropologia*. Although Sergi had been elected its first president, Gini held the key position. The principal aim of the *Comitato* was “to study the factors that can determine the physical or psychical advancement or decline of races”, promoting research on the normal and pathological heredity of characters and the influence of environment and of the parental way of life on their offspring (Atti del Comitato, 1913,

Carta biografica per le Scuole.	
TABELLA I. Osservazioni fisiche.	
Entrata nella Scuola.... Classe.... anno....	Uscita dalla Scuola.... Classe.... anno....
1. Nome.	"
2. Et�.	"
3. Patria.	"
4. Paternit� (genitori).	"
5. Et� e professione dei genitori.	"
6. Vaccinazione.	"
7. Statura.	7. Statura.
8. Peso.	8. Peso.
9. Capacit� polmonare.	9. Capacit� polmonare.
10. Forza muscolare.	10. Forza muscolare.
11. Stato generale della salute.	11. Stato generale della salute.
12. Malattie sofferte.	12. Malattie sofferte.
13. Anomalie, deformit�.	13. Anomalie e deformit�.
14. Testa, circon. orizzont.	14. Testa, circon. orizzont.
15. Testa, lunghezza massima.	15. Testa, lunghezza.
16. Testa, larghezza massima.	16. Testa, larghezza.
17. Indice cefalico.	17. Indice cefalico.
18. Faccia, altezza.	18. Faccia, altezza.
19. Faccia, larghezza.	19. Faccia, larghezza.
20. Indice facciale.	20. Indice facciale.
21. Capelli, colore e forma.	21. Capelli, colore e forma.
22. Occhi, colore.	22. Occhi, colore.
23. Pelle, colore.	23. Pelle, colore.
24. Indicazioni eventuali.	24. Indicazioni eventuali.

**Fig. 2 – Carta biografica per le scuole. Physical Observations (From Sergi, 1892a, p. 121).**

p. 543). The proceedings of the *Comitato* sessions were to be recorded in the *Rivista di Antropologia*. However, none of these proposals were realized. We have no information about the activities of the *Comitato* in the interwar period (Sergi, 1928).

Sergi also applied eugenics in the field of psycho-pedagogical science. In 1885, he proposed the adoption of the so-called *carta biografica*. This was a form with two tables containing anthropological, physiological and psychological data of primary school children (Sergi, 1885d; Figs. 2, 3). The *carta* resembled the criminal record card invented by Alphonse Bertillon and adopted by the French police as a system of identification. With the help of a selection of medical and anthropological instruments (anthropometer, dynamometer, spirometer, the Galton whistle, compasses and scales), teachers would measure the height, weight, lung capacity, muscular force, length, width and diameter of the skull. Moreover, they would have to assess the colour of the skin, the colour and shape of the eyes and hair, and to test the level of intelligence, memory, attention, tactile perception and other sensory

Carta biografica per le Scuole.	
TABELLA II. Osservazioni psicologiche.	
Entrata nella Scuola.... Classe.... anno....	Uscita dalla Scuola.... Classe.... anno....
1. Vista, acutezza, presbittia, miopia.	1. Vista, acutezza, presbittia, miopia.
2. Visione dei colori, normale, difettosa.	2. Visione dei colori, normale, difettosa.
3. Udito, acutezza.	3. Udito, acutezza.
4. Tatto, acutezza.	4. Tatto, acutezza.
5. Intelligenza, pronta o tardiva.	5. Intelligenza, precoce o tardiva.
6. Percezione, rapida o lenta.	6. Percezione, rapida o lenta.
7. Memoria, tenace o labile.	7. Memoria, facile o no a ritenere.
8. Attenzione, facile o no a destare.	8. Attenzione, facile o no a destare.
9. Linguaggio, spedito o lento.	9. Attenzione, sua durata media.
10. Linguaggio, pronuncia perfetta o imperfetta.	10. Attenzione, stanchezza consecutiva.
11. Linguaggio, balbuzie.	11. Linguaggio, spedito o lento.
12. Sensibilità emozionale, ottusa o facile ad imitare.	12. Linguaggio, pronuncia perfetta o imperfetta.
13. Condotta e carattere in famiglia.	13. Linguaggio, balbuzie.
14. Affettività verso i parenti.	14. Sensibilità emoz., ottusa o facile a eccitare.
15. Taciturnità o loquacità.	15. Condotta e carattere nella scuola.
16. Ciò che preferisce nelle ore libere.	16. Amicizia nella scuola.
17. Capricci, eccentricità.	17. Taciturnità o loquacità.
18. Fatti accidentali straordinari.	18. Ciò che preferisce nelle ore libere.
	19. Capricci, eccentricità.
	20. Fatti accidentali straordinari.

Fig. 3 – Carta biografica per le scuole. Psychological Observations (From Sergi, 1892a, p. 122).

faculties. Finally, they would have to record the marks of degeneration and any family history of hereditary diseases. The *carta biografica* also contained photographs and gave a detailed psychological analysis of the pupil. Every primary school and even asylum for feeble-minded children was to have an anthropometry laboratory (Sergi, 1892a, pp. 105-131).

The *carta biografica* was a scientific instrument to help direct children's education and to prevent or eliminate cases of degeneration. Initially, the Minister of Public Education did not accept Sergi's proposal for the *carta biografica* and anthropometric laboratories. It was only in 1911 that it was introduced in nursery schools. Nevertheless, between the late nineteenth century and the first decade of the twentieth century, a generation of Italian scholars of pedagogy used Sergi's *carta biografica* or a similar, slightly modified model. Maria Montessori – who considered Sergi her mentor in the anthropological field – adopted the *carta biografica* in her Children's Houses, stating that it marked “the basis of a new pedagogical system” (Montessori, 1910, p. 384).

## War as a dysgenic event

In Italy, the outbreak of the First World War had a profound impact on the young eugenic movement, which was taking its first steps in the international sphere (Mantovani, 2003; 2004, pp. 145-205; Cassata, 2006, pp. 52-75; Cerro, 2015a). As in several European countries, the carnage in the trenches and the spread of wartime trauma were an opportunity to re-evaluate the biological effects of modern war (Crook, 1994; La Vergata, 2005, 2015). Was war a factor of degeneration and racial decline? Italian eugenicists provided different answers. The majority of them, concerned about the integrity of the social body, condemned modern war as a cause of “negative” selection, while a small minority, led by Gini, emphasized its beneficial effects on racial health because it was an agent of evolution, weeding out the frail and ensuring the survival of the fittest. Sergi was a prominent critic among the Italian eugenicists who condemned war as dysgenic. Like his colleagues, he sustained that the consequence of conflict was “reverse selection”, because it eliminated the best germplasm. At the same time, however, he warned against other more serious dysgenic effects of warfare, such as depopulation. In 1916, at the eighth meeting of the *Società Italiana per il Progresso delle Scienze*, Sergi denounced war as a factor of “deep biological disequilibrium” for nations (Sergi, 1916c, p. 192). It not only brought about the death of young soldiers, but was also a biological menace to society as a whole, undermining its strength and vitality. The starting point for his reflections was a problem that had worried statisticians, demographers, politicians and even novelists such as Emile Zola during the second half of the nineteenth century: the decline in the French birth rate. Some scholars, such as the demographer Jacques Bertillon, founder of the *Alliance Nationale pour l'Accroissement de la Population Française* in 1898, attributed the phenomenon to the diffusion of neo-Malthusian practices (Bertillon, 1911). Others, such as the anthropologist Georges Vacher de Lapouge, champion of Aryan supremacy, interpreted it as

the result of a biological process, the crossbreeding between a superior race (the dolichocephalic, blonde *Homo europeus*, that is the Aryan type), and an inferior one (the brachycephalic, dark-skinned *Homo alpinus*). This racial blending caused degeneration and infertility in any offspring (Vacher de Lapouge, 1887).

Sergi disagreed with both Bertillon and Vacher de Lapouge. Planning human reproduction was undoubtedly widespread in large cities and among the upper classes, but Bertillon and his followers had overestimated its consequences. Population decline in France had already started in the early nineteenth century, well before the foundation of the *Ligue de la Régénération*, which pioneered neo-Malthusian practices in France. As regards Vacher de Lapouge's thesis, racial crossbreeding was common in all European countries, because pure races did not exist and the infertility of hybrids was just a "physiological myth" (Sergi, 1916c, p. 193). In Sergi's opinion, the real cause of demographic imbalance was the prolonged wars that France had faced since the French Revolution when the Napoleonic campaigns had decimated the population.

From a historical perspective, French losses during the Great War were unprecedented, involving not only soldiers at the front, but also civilians, who suffered poverty, malnourishment, and nervous and psychological diseases. For this reason, in 1917, Sergi proposed a complete eugenic program to combat the negative effects of war and to ensure the "preservation of race in its efficient wellbeing in the present and the future" (Sergi, 1917, p. 192). He called for direct intervention by the state to safeguard Europe's young generations and the abolition of military training, because it was likely to harm their still developing bodies.

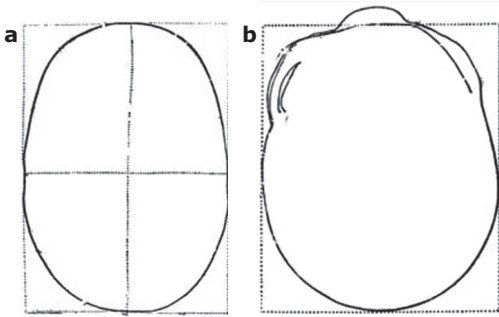
Since the early 1900s, Sergi's views on the harmful effects of war clearly marked him as an ardent anti-militarist and pacifist (Tedesco, 2011, 2012). He imagined a new social and political order for Europe, which could be realized by banning national armies and military service, and the creation of a federation of European countries, similar to the League of Nations

proposed by the American president Woodrow Wilson (Sergi, 1918). Each member of this federation would have the same rights and duties, and conflicts would be resolved by international arbitration. According to Sergi, education and civilization would restrain men's bellicose and primordial instincts. Universal peace was not only an essential condition for the rebirth of the Latin nations, it was also the ultimate aim of human evolution.

### The morphological method

Since the late nineteenth century, Sergi's main concern became the attempt to elaborate a "natural" and "rational" method for anthropological studies, similar to the Linnaean classification in botany (Cerro, 2015b). In fact, this method should not have been based on artificial indices (such as the cephalic index introduced by the Swedish anatomist and anthropologist, Adolph Anders Retzius, or the facial index), but on the morphological description of cranial characteristics, considered immune to climatic and environmental influences and thus largely stable over time. Sergi indeed maintained that the cephalic index could not provide any useful data for the classification of human groups. First, the arithmetic mean used in the calculus of the cephalic index of different populations did not estimate the variations of single elements. Second, the index did not allow scientists to evaluate the differences between skulls belonging to different races, with the risk of proposing paradoxical comparisons (Sergi, 1882). It is worth noting that Sergi did not intend to drop craniometry *per se*, but only to limit the misuse of measurements (Sergi, 1910).

Sergi first presented his morphological method in 1891, when he published an article on the classification of twenty-nine Somali skulls in the *Archivio per l'Antropologia e la Etnologia* – the anthropological journal founded by Mantegazza and with which he collaborated (Sergi, 1891). Sergi divided these skulls into four groups using a parameter, which he called "type", i.e. the sum of



**Fig. 4 – Ellipsoid (a) and platycephalic (b) cranial varieties (From Sergi, 1893a, pp. 42, 56).**

morphological characters identified by observation alone. Whereas the cephalic and facial indices proved unreliable, the cranial type allowed scientists to distinguish relatively precisely between human varieties. The term “variety” was taken over by *De generis humani varietate nativa*, the doctoral dissertation 1775 by the German naturalist Johann Friedrich Blumenbach, professor of physiology and comparative anatomy at the University of Göttingen (Blumenbach, 1795). A group of varieties constituted a “stock”, the translation of the Italian word *stirpe*, which Sergi preferred to the “ambiguous” concepts of “race” and “species” (Sergi, 1892b, p. 100).

In August 1892, during the International Congress of Anthropology and Prehistoric Archeology held in Moscow, Sergi illustrated the guidelines of his new anthropological approach to the international scientific community (Sergi, 1892-1893). However, only a few months later he explained the practical application of his method in the *Bullettino della Reale Accademia Medica di Roma*, by classifying 400 skulls recovered from the New Guinea by the ethnologist Lamberto Loria (Sergi, 1892b). The morphological method followed three steps.

- 1) Sergi arranged the skulls in straight rows on a large table and started to observe and compare their shapes without making measurements. He formed groups (“varieties”) of skulls that seemed to share common characteristics.

Moreover, he analyzed every element of each group in order to separate the principal groups into subgroups (“subvarieties”).

- 2) He measured the skulls, using the criteria outlined by the Frankfurt Agreement of 1884. This was crucial in order to verify the reliability of the observations and comparisons already made.
- 3) He described the varieties with a binomial terminology, which used Greek and Latin terms to indicate the peculiar traits of each variety. According to Sergi, the advantage of this type of classification was that it could sum up a more extensive description and allowed a simple comparison of different skulls.

In the case of Melanesian skulls, Sergi identified eleven varieties. Among them, he included the “microcefalo eumetopo” with a small cranial capacity and a high forehead, the “eucefalo melanesiense” with a regular form, the “proofriocefalo pitecoide” similar to the skulls of the great apes. This classification was accompanied by a complicated list, which recorded the secondary characteristics of the skulls, such as the cephalic index, the vertical index, the facial index, the orbital index, the nasal index and cranial capacity. For example, the “proofriocefalo pitecoide” was “stenocefalo, brachiclitometopo, ellissoide, camedolicocefalo, elattocefalo, mesoprosopo, platirrino, mesoconco, prognato”. It is not surprising that in his article on Melanesians Sergi included a short glossary of terms with their etymologies.

Over the years, Sergi introduced only a few minor modifications. He re-presented the principles of his method in a detailed essay, *Le varietà umane. Principi e metodo di classificazione*, published in 1893 in the first volume of the *Atti della Società Romana di Antropologia*, which was then translated into English (Sergi, 1893a; 1894a). Here he introduced a new criterion of morphological classification: the vertical scale (*norma verticalis*) proposed by Blumenbach, which meant viewing skulls from above in order to discern varieties. In case of doubt, the parietal and the occipital scale could also be used. Applying the vertical scale, Sergi identified



sixteen varieties, indicated for the first time with a single word: ellipsoid (Fig. 4a), pentagonoid, rhomboid, ovoid, sphenoid, spheroid, byrsoid, parallelepipedoid, cylindroid, cuboid, trapezoid, acmonoid, lophocephalic, chomatocephalic, platycephalic (Fig. 4b), and skopeloid.

This morphological method received much criticism, both in Italy and abroad. Its opponents protested that it was not objective, while the terminology was too difficult even for specialists (Benedikt, 1892; Ranke, 1892; Mantegazza, 1893; Regalia, 1893). In 1895, Sergi was accused of plagiarism by Harrison Allen, professor of Zoology and of Comparative Anatomy at the University of Pennsylvania, because some of his varieties were too similar to the classification devised by the American anthropologist James Atkins Meigs and based on the cranial type and form (Meigs, 1866; Allen, 1895). According to Allen, some names proposed by Sergi were already included in Meigs' classification because the forms of the skulls were identical (Tab. 1). Thus, Sergi's nomenclature should be judged by the law of priority of publication.

Sergi rejected the charges of Allen saying that the memoir of Meigs was not known in Europe and at the same time that he was very glad to learn that another scientist had distinguished the various forms of human skulls as early as 1866: "When two men, at so great a distance in time and space, have conceived a similar idea it is a strong argument that this idea is not a fantastic one" (Sergi, 1895b, p. 658). However, Sergi tried to simplify his taxonomy. In 1900, in his book *Specie e varietà umane*, he reduced the number of varieties from sixteen to nine: ellipsoid, pentagonoid, rhomboid, ovoid, beloid, cuboid, sphenoid, spheroid, and platycephalic (Sergi, 1900b; Tab. 2). Nevertheless, Lombroso and the fellows of the *Società romana* accepted and applied Sergi's new method (De Blasio, 1892; Coraini, 1893; Mingazzini, 1893; Lombroso, 1894).

At the First International Eugenics Congress, Sergi confirmed the fixed nature of cranial forms in stark opposition to the German-born American anthropologist Franz Boas (Sergi, 1911c). In a massive piece of research on the bodily changes

**Tab. 1 – Comparison between Sergi's nomenclature and Meigs' classification of cranial varieties (Sergi, 1893a; Meigs, 1866).**

SERGI, 1893a	MEIGS, 1866
Ellipsoid	Cymbecephali
Pentagonoid	Cymbecephali
Rhomboid	Arched or Hypsicephalic
Ovoid	Oval or Ooidocephalic
Sphenoid	Wedge-Shaped or Sphenocephalic
Spheroid	Globular or Sphaericephalic
Byrsoid	
Parallelepipedoid	Prognathic or Negritic
Cylindroid	Cylindricephali
Cuboid	Square, Cuboidal or Cubicephalic
Trapezoid	Archecephali
Acmonoid	Archecephali
Lophocephalic	Phoxocephalic
Chomatocephalic	
Platycephalic	Flat or Platycephalic
Skopeloid	

of descendants of immigrants, Boas had demonstrated that the variability in cephalic indices and in head forms between European immigrants and their U.S.-born children was affected by the length of time parents and children had been exposed to the American environment (Boas, 1912). The head form of a race did not remain constant from one generation to the next, because it depended on changing environmental and social conditions. For Boas, these results were evidence of the plasticity of cranial characteristics against the prevailing thesis of their fixity and persistence. Sergi totally disagreed: brachicephaly and dolicocephaly, he argued, were "primitive" cranial forms, immune to external factors. The presumed differences between the two generations of immigrants were due to the false statistical method adopted by Boas (Sergi, 1912b,c).



**Tab. 2 – Sergi’s classifications of cranial varieties in 1893 and in 1900 (Sergi, 1893a, 1900).**

SERGI, 1893a	SERGI, 1900
Ellipsoid	Ellipsoid
Pentagonoid	Pentagonoid
Rhomboid	Rhomboid
Ovoid	Ovoid
Sphenoid	Sphenoid
Spheroid	Spheroid
Byrsoid	
Parallelepipedoid	
Cylindroid	
Cuboid	Cuboid
Trapezoid	
Acmonoid	
Lophocephalic	
Chomatocephalic	
Platycephalic	Platycephalic
Skopeloid	
	Beloid

### The foundation of the Società Romana di Antropologia

Almost paradoxically, one of the harshest critics of Sergi’s cranial classification was Mantegazza, who in 1875 proposed a classification of human races, which relied on brief descriptions of skull shapes and few measurements (Mantegazza, 1875, 1880). Yet the theories of Sergi and Mantegazza shared some common ground: both denounced the excessive use of craniometry; both called for the application of a “natural” and “rational” method; and both considered Linnaeus the forerunner of their new anthropological approach. Therefore, it is astonishing that Sergi’s morphological method triggered one of the most dramatic splits in the history of Italian anthropology. It seems that the dispute over the anthropological

method was only a pretext for other existing misunderstandings. Sergi and Mantegazza were both ambitious men, and often unwilling to compromise. In March 1893, Mantegazza began to attack Sergi’s morphological method seriously in an essay entitled *Di alcune recenti proposte di riforme della craniologia*. He argued that the term “variety” was too vague, and that cranial groups were classified using different methodologies (vertical, parietal and occipital scale), and that the terminology consisted of long and unpronounceable names (Mantegazza, 1893). In other words, Sergi’s method was not a real reform because it did not allow for progress in scientific studies.

As a result of his cranial reform, Sergi found himself in the crossfire of criticism from Mantegazza and his disciples (S. Sergi, 1942-1943). Thus, he decided to abandon the *Società Italiana di Antropologia ed Etnologia* and to found an independent society in Rome. The *Società Romana di Antropologia* held a preliminary meeting in April 1893, but its first official session only took place on 4 June 1893. It consisted of an interdisciplinary group of ninety-five founding members, which included physicians, psychiatrists and criminal anthropologists, together with jurists, ethnologists, demographers, naturalists, secondary school teachers, and four members of the Italian Parliament. Its fellows included Lombroso, Morselli, the philosopher Roberto Ardigò, the archeologist Edoardo Brizio, the inventor of forensic science in Italy Salvatore Ottolenghi, the anthropologist and founder of military anthropometry Ridolfo Livi, the anthropologist and psychologist Tito Vignoli, the psychiatrist Gaspare Virgilio, and the anthropologist Angelo Zuccarelli. The statute of the *Società Romana* stated that its aim was to “spread the culture concerning man in the largest sense”, by studying physical anthropology, ethnology, experimental psychology, and sociology (Statuto, 1893). Furthermore, the *Società Romana* founded its official journal, the *Atti della Società Romana di Antropologia*. Its main task was

“to promote the knowledge of man’s physical characters and his different varieties; to solve the problems of the origin of man and his antiquity;

to explore the routes of human dispersals and migrations, and their consequences; to study the phenomena and the ancient and modern products of human activity within society; thus of ancient and primitive arts, of religions and their influence, of family formation, of the origin of peoples and of nations; to investigate the relations between ancient civilizations and between them and modern civilizations; to investigate the patterns of their diffusion, their changes and their influences between different peoples; to extend the knowledge of collective and ethnic psychology; to investigate the pathological influences on the mental functions of peoples; and, as a practical aim as well, to study the problems of physical and mental education of peoples, by examining their origins of the past, in the physical relations of human varieties and in different physical and social environments" (Avvertenza, 1893).

The creation of the Society unleashed the wrath of the fellows of the *Società Italiana di Antropologia ed Etnologia*. The zoologist Enrico Hillyer Giglioli was surprised that Sergi had preferred to cause divisions in Italian anthropology, instead of promoting unity of purpose. The geographer Giovanni Marinelli blamed his arrogance and lack of professionalism. Mantegazza, on his part, pointed out that the real problem was Sergi's authoritative attitude and defined his initiative "a phenomenon of moral abomination" (Rendiconti, 1894, p. 344). The *Società Italiana* did not officially expel Sergi, but as of 1894 his name no longer appeared in its list of fellows. Sergi had managed to commit a "symbolic parricide" against Mantegazza (Puccini, 1993, p. 231).

### The theory of the Mediterranean stock

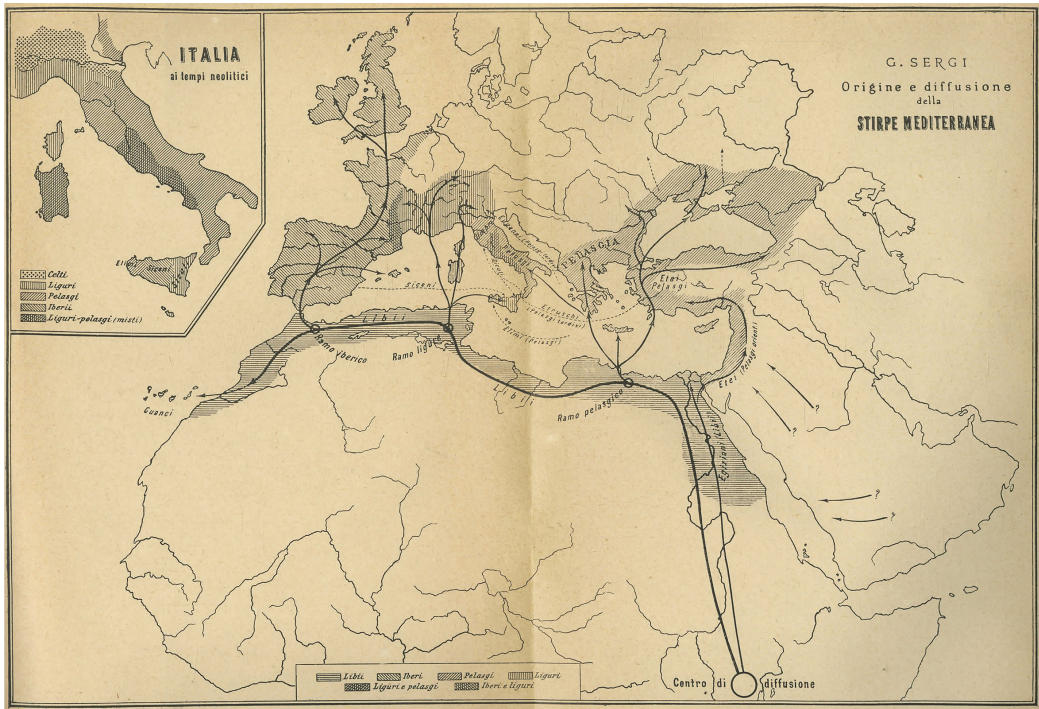
Quite apart from this clash, the morphological method was the basis of the theory of Mediterranean or Eurafrikan stock, according to which people who originated in East Africa, in particular the Ethiopian Highlands, brought civilization to Europe (Sergi, 1895a, 1897, 1898a, 1900b,

1901, 1903a, 1908a, 1911a, 1926, 1930). From the Neolithic, these people passed through North Africa and diffused in the basin of the Mediterranean and in Asia. Sergi proposed this theory in the 1880s and consolidated it with the introduction of the morphological method. Cranial and facial traits were indeed the main instruments to recognize and classify the four chief branches of the great Mediterranean family: Libyans, Iberians, Pelasgians and Ligurians (Fig. 5).

According to his reconstruction, Mediterranean civilization developed in three phases (Sergi, 1919a, pp. 211-214). The first took place between the Neolithic and the Bronze Age and included the Minoan and Mycenaean periods. It was interrupted by the arrival of Aryan-speaking people, migrating from Asia and penetrating the North of Europe. Although the Aryans had introduced the manufacture of iron and the cremation of dead bodies, their arrival marked the onset of the "Dark Ages". In fact, Aryans were savages and had partly destroyed the product of the superior civilizations of Neolithic populations. During the Bronze Age, the Aryans also invaded Northern Italy (Fig. 6). Their settlements were destroyed by the Etruscans and later by the Romans. The second phase coincided with the development of Greek civilization, which restored the artistic and religious forms of the Minoan and Mycenaean cultures, and introduced philosophy and science to Europe. The growth of Hellenic culture was proved by the settlement of colonies in Southern Italy, Africa and Asia Minor. The third and last phase corresponded to Latin civilization. In Sergi's words, "the civil and modern world" was born thanks to Rome's imperialistic policy, i.e. its capacity to spread its language and culture throughout the Empire (Sergi, 1919a, p. 214; see also Sergi, 1899b).

According to Sergi, there were three varieties of Mediterranean or Eurafrikan stock:

- 1) The African variety with red-brown and black pigmentation, which inhabited sub-Saharan Africa;
- 2) The Mediterranean variety with a brunette complexion, which inhabited the Mediterranean basin, North and East Africa;



**Fig. 5 – The origin and spread of the Mediterranean stock with its 4 branches (Libyans, Iberians, Pelasgians and Ligurians) from East Africa (From Sergi, 1895a). The colour version of this figure is available at the JASs website.**

- 3) The Nordic variety with blonde skin and hair, blue or grey eyes, which reached the North of Europe, i.e. North Germany, Scandinavia and England (Sergi, 1904, pp. 49-52).

In opposition to the anthropological theories of his time, Sergi claimed that the Europeans and the populations of North and East Africa belonged to the same variety, the Mediterranean variety (Sorgoni, 1998, p. 52). As one commentator put it: “Sergi browned Europe” (D’Agostino, 2002, p. 325). Yet what he did share with his contemporaries was the thesis of the inferiority of the sub-Saharan African variety, whose way of life and sexual habits were considered similar to those found in animals (Sergi, 1888b).

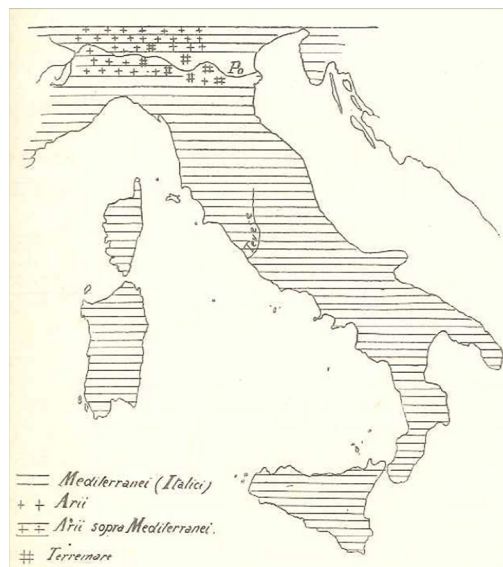
It is important to stress that the expression “Eurafrican stock” had already been used in anthropology. In 1890 the American ethnologist

Daniel Garrison Brinton, the translator of *Le varietà umane. Principi e metodo di classificazione* (Sergi, 1894a), identified a “Eurafrican race”, alongside “African”, “Asiatic”, “American” and “islander or coastal” species (Brinton, 1890, pp. 97-99). The Eurafrican had pale skin, wavy hair, an aquiline nose and a square jaw-line. This race had two branches: the South Mediterranean branch, with Hamites (Egyptians, Berbers and East African peoples), and Semites (Arabs, Abyssinians and Chaldeans); and the North Mediterranean branch, with Aryans (including Italic peoples, Greeks, Germans, Latvians and Slavs), and Caucasians. For Brinton, the white race was “geographically and historically an African race” (Brinton, 1890, p. 105). Sergi criticized Brinton for having included Indo-European populations in Mediterranean stock, on the basis of linguistic affinity and not on analysis of physical characteristics. Yet he held that the hypothesis of the

African origin of Mediterranean peoples proposed by Brinton was important and innovative (Sergi, 1897, p. 395).

Before Brinton, the English anatomist William Henry Flower had identified three anthropological types: Negroid, Mongoloid and Caucasian (Flower, 1885). The latter was also called “Eurafrican” and included pale-skinned Northern Europeans and dark-skinned peoples of Southern Europe, North Africa and South-West Asia. In Sergi’s opinion, Flower’s classification was “an anthropological chaos” (Sergi, 1897, p. 393), where once again cranial morphology was not taken into account and excessive importance was given to skin colour.

Sergi’s work inevitably targeted the supporters of what the historian Léon Poliakov has defined as the “Aryan myth” (Poliakov, 1971). He strongly criticized the Indo-Germanic theory of the Austrian anthropologist and philologist Karl Penka and the German anthropologist Theodor Poesche, who considered Aryans to be of fair dolichocephalic ethnic type, tall, with blond hair and blue eyes (Poesche, 1878; Penka, 1886). For Sergi, this German type belonged to the Nordic variety of the Eurafrican species and not to the Aryan race: Germans were not a homogeneous nation with a “pure” cranial type. Furthermore, Sergi maintained that Aryans came from the Hindu Kush in Central Asia, and that their skin, hair and eye colour were dark (Sergi, 1903a). The Mediterranean civilization was the product of a varied stock composed by many consanguineous populations, including the Jews, who occupied the Mediterranean basin after spreading out from a common centre, i.e. East Africa. In conclusion, Sergi countered the myth of Aryan race with the “myth of Mediterranean race” (Devoto, 1962, p. 53; Boëtsch & Ferrié, 1993; Pizzato, 2011-2012, pp. 51-86; 2015), which was widely accepted by the English and American anthropologists (Keane, 1899; Ripley, 1899; Selignam, 1930). As the American ethnologist Otis Tufton Mason wrote: “It does not take long to find out that a work on the races of Europe in which Sergi’s name does not appear is strongly pro-Teuton” (Mason, 1902, p. 528).



**Fig. 6 – Aryan and Mediterranean peoples in Italy during the Bronze Age (From Sergi, 1898a, p. 143). The colour version of this figure is available at the JASs website.**

The Mediterranean people differed physically, psychically and socially from Aryans. First, there was a difference in cranial shape. The Mediterranean stock was largely made up of the ellipsoid, ovoid and pentagonoid forms, while Aryans tended to be cuneiform, spheroid and platycephalic. Second, Mediterranean societies were dominated by individualism and a lack of social cohesion. In comparison, Aryan societies were characterized by a strong feeling of community. Among the Aryans one could find order, discipline, education and devotion to work, whereas among the Mediterranean populations there was anarchy, a lack of discipline, a tendency to be rebellious and lazy. Traces of Aryan and Mediterranean attitudes had survived in the modern Italian population. Northerners, descended from Aryans, were active, diligent, ingenious, and at the same time conservative; the Southerners, coming from the Mediterranean and African peoples, were indolent, ungovernable and rebellious, but also creative and original (Sergi, 1898a, pp. 177-220; 1900a, pp. 244-253).



The theory of Mediterranean stock was also supported by ethnological arguments concerning burial practices. In actual fact, it was the Aryan invasion which introduced the new custom of cremation, while the Mediterranean people had adopted inhumation. The transformation of burial customs in Europe was confirmed by archaeological records found in Sergi's research on the *terramare*, the primitive human settlements in the Po Valley between the Neolithic and the Bronze Age. Sergi's interpretation of the origin of the *terramaricoli* conflicted with the dominant thesis of the palaeoethnologist Luigi Pigorini. For Pigorini, the *terramare* were built by the Celts and the Umbri, two Indo-European populations (Pigorini, 1883, 1890, 1895). At the end of the Bronze Age, the Celts and the Umbri crossed the Apennines and developed the Villanovan, Etruscan and even Latin cultures, by founding Rome. Sergi considered Pigorini's theory an extension of Indo-Germanism and replied that the *terramare* sites had been built by a Mediterranean population, the Ligurians (Sergi, 1883b, 1883c). The *terramare* sites underwent drastic change as a result of the Roman invasion of the Po Valley.

In 1934, Sergi decided to complete his anthropological and archeological analysis of the primitive inhabitants of Italy with a linguistic enquiry, entitled *Da Alba Longa a Roma*. The volume closed the "cycle of research on the Mediterranean stock in Italy", which started in 1883 with the essay *Stirpe ligure nel Bolognese* (Sergi, 1934, iii–iv). Sergi tried to take a position against Indo-Germanism also with linguistic arguments, by relying on ancient sources, in particular Livy and Dionysius of Halicarnassus, and on the study of toponymy. Assuming that the language was the product of a series of historical stratifications, Sergi recognized it as a useful tool for discovering the origins, interchanges and succession of the ancient populations in Italy. Sergi believed that the Sicels and the Ligurians were the first inhabitants of the peninsula who had given names to many towns, rivers, lakes and mountains. Sergi applied the same linguistic analysis to the study of ancient populations of Great Britain in his last book *I Britanni nel Settentrione d'Europa*, published in 1936, the year of his death (Sergi, 1936).

### The two Italies and the Southern question

In 1897, Niceforo developed Sergi's ideas on the anthropological differences between the inhabitants of Southern and Northern Italy in *La delinquenza in Sardegna* (Niceforo 1987). This was based on Niceforo's visit to the island two years earlier on behalf of the *Società Romana di Antropologia* and the *Società Geografica Italiana* to gather information on Sardinian pygmies. In his book, Niceforo claimed that most of the crimes committed in Sardinia – murder, theft, vandalism and arson – were concentrated in the so-called "delinquent zone", an area framed by Nuoro, Ogliastra and Villacidro. The inhabitants in this area, Niceforo argued, suffered from a sort of psychic, moral and social atavism, making them similar to the nomadic shepherds of central Asia, quarrelsome and intent on acts of aggression and looting.

According to Niceforo, the causes of the high rates of criminality in Sardinia were both individual, that is, due to the particular anthropological, physiological and psychological constitution of the inhabitants, and environmental. As regards individual causes, Niceforo took up Sergi's anthropological position, affirming that the Italian population consisted of two races, Mediterranean and Aryan, each with a different inclination to commit crime. In Northern Italy, where Celtic or Aryan stock prevailed, there was less crime than in the South, which was inhabited by Mediterranean stock. As regards environmental factors these included a neo-feudal model of land ownership, the lack of a railway or road network, the maladministration of justice and the ineffectiveness of the forces of law and order. Nevertheless, the young Niceforo, keen to make a name for himself in Italian anthropology, even with provocative theories, paid less attention to social conditions than to ethnic factors. Niceforo's proposed solution for Sardinia's problems was to abandon the political and administrative centralism imposed by the now unified Italian state and to promote a regional federalism. The theme of the "two Italies" was also the focus of



his *L'Italia barbara contemporanea*, published the following year (Niceforo, 1898). Here Niceforo extended his analyses from the Sardinian "delinquent zone" to all of Southern Italy, arguing that its population had a moral and social structure typical of an inferior civilization. Many of the features of Southern Italians were degenerative and a measure of anthropological inferiority with respect to Northern Italians. These were the premises of what has been defined as the "pathologization of the Southern question": for Niceforo, the South and its inhabitants were in a grave state of ill health and in need of treatment to restore them to well-being, and above all to prevent their ills from spreading and infecting the healthy and productive areas of the country (Wong, 2006).

Niceforo's thesis caused intense debate on the question of Southern backwardness and the connection between race and criminality. On the one hand, it was welcomed by exponents of the school of criminal anthropology, such as Lombroso and the jurist Enrico Ferri, who wrote an introduction to *La delinquenza in Sardegna*. On the other hand, it met with protest from Colajanni, who argued that such backwardness was not due to a racial characteristic, but was instead the product of social and economic conditions of Southern Italy (Colajanni, 1898, 1906). In particular, Colajanni argued that the alleged anthropological differences of the Sardinian population from other Italians was "a myth", since peoples that had inhabited the island in the past all belonged to Mediterranean stock.

Sergi also took part actively in the debate. In 1900, during an inquiry into the Southern question, he stressed the importance of taking both anthropological and social factors into account (Renda, 1900, pp. 137-143). Sergi affirmed that there was doubt of the "great difference" anthropologically speaking between Southern and Northern Italy. Indeed, during the course of history there had been races which had managed to attain a high degree of civilization and others that remained barbarous and savage. The Southern population was in this second group insofar as it had kept all the characteristic traits

of populations of African origin. The socio-economic factors were, in particular, the isolation of the Italian *Mezzogiorno* and bad governance first by the Bourbons and then the state of Italy. The only remedy to this dramatic state of affairs, according to Sergi, was to promote massive internal immigration from North to South. The mixing of the two stocks would be beneficial from a biological, social and political perspective.

Sergi returned to the Southern question in 1907 when he too published a book on Sardinia following a visit to the island the previous year, *La Sardegna. Note e commenti di un antropologo* (Sergi, 1907). Part I of the book dealt with an analysis of physical and psychological anthropology of the Sardinian population. According to his research, Sardinia, like the rest of Italy and Europe, had been inhabited during the prehistory by a branch of Mediterranean stock; then in the Bronze Age, it had been invaded by Aryan people of Eurasian origin. The latter, being few in number, were unable to impose their language and customs, and had instead taken on those of the indigenous inhabitants. In addition to Mediterranean and Eurasian elements, a third component of the Sardinian population consisted of pygmies, similar to the Mediterranean type, but of low stature and a limited cranial capacity. As regards temperament Sergi argued that the Sardinians were not much inclined to discipline and work, taking personal initiatives and lacked an idealistic impetus: in a word they were impassive. Yet they were also decent, friendly and generous and had no physiological predisposition to commit crime (Fig. 7). Hence for Sergi, in contrast to Niceforo, the rate of delinquency in Sardinia was lower than that of other regions of Central and Southern Italy. The exception was theft, which was committed above all by peasant farmers due to their extreme poverty.

Part II of the book examined the inability of Sardinians to adapt to modern life due not so much to a presumed racial inferiority as to serious social, economic and political ills. The arid nature of the soil made agriculture impracticable; sheep farming produced poor results given its very basic nature; malaria remained a scourge in marshy areas; the road network was in appalling



**Fig. 7 – Inhabitants of Fonni, a town in the province of Nuoro (From Sergi, 1907, p. 160). The colour version of this figure is available at the JASs website.**

condition; there were virtually no railways; and trading and industrial activity found it difficult to develop. Politics in turn was very inadequate since the local administration burdened the population with tax, but without providing basic services such as drinking water, roads, public illumination, schools and drainage. The state was also indifferent to the terrible living conditions of the population: the government claimed to “civilize Eritrea”, but ignored “the barbarous conditions at home!” (Sergi, 1907, p. 203). For Sergi, as Niceforo, only the adoption of a federalist government would resolve this paradox to improve the situation of single Italian regions, including Sardinia. Indeed, the unity of Italy was not complete, being the result of a too rapid fusion of heterogeneous elements. Sergi proposed this solution: to take a man with a “broad culture and humanitarian feelings” (Sergi, 1907, p. 206), and to give him full powers as a real dictator. For several years, the government had to allow him to make decisions that would revive the economic, sanitary and social conditions of the island by exploiting its resources whilst keeping the local political powers at a distance.

One can then say that in the analyses of the Southern question Sergi occupied an intermediate position between the Lombrosian school of criminal anthropology, embodied in Niceforo, and the theories of Colajanni. On the one hand, indeed, Sergi insisted on the importance of racial factors;

yet on the other he devoted much attention to structural and political conditions. The reactions of his contemporaries to Sergi’s book on Sardinia were relatively positive and did not provoke the violent reactions that had greeted *La delinquenza in Sardegna*. Colajanni, for example, judged *La Sardegna* to be one of Sergi’s best works, which had defended the “accursed race” from Niceforo’s “slander” (Colajanni, 1907, p. 252). However, he considered Sergi’s proposal for a plenipotentiary commissioner to be an unrealizable “Spencerian utopia of scientific despotism” (Colajanni, 1907, p. 253). By contrast, Antonio Gramsci’s judgment was very harsh, and in 1916 he criticized those visitors to Sardinia who spent their time there carousing and who back in mainland Italy behaved like new “Christopher Columbus”, claiming to have discovered something new in the character of the Sardinians (Gramsci, 1971). Among them Gramsci included Sergi, who, after having measured a few skulls, was convinced of the psychophysical inferiority of Sardinians. In October a decade later, in his famous essay on the “Southern question”, Gramsci accused positivist anthropologists, including Sergi and Niceforo, of having helped disseminate two baseless stereotypes. First, the *Mezzogiorno* was described as “the ball and chain, that prevents a more rapid progress in the civil development of Italy”; second, its inhabitants were considered as “biologically inferior beings, semi-barbarians or out and out barbarians by natural destiny” (Gramsci, 2005, pp. 32-33).

Although different, the theories of Sergi and Niceforo on the anthropological disparities between Southerners and Northerners were even acknowledged in the United States, where they helped support the idea that Italians were closely related with the African races, and hence inferior with respect to the white races. An emblematic case of this is the *Dictionary of Races and Peoples*, published in 1911 by the US Immigration Commission in response to the Dillingham Report on the social and economic impact of immigration in the United States and led to the enactment of the 1917 *Immigration Act*. In the *Dictionary* under the entry “Italian” we find the works of Sergi and Niceforo cited, albeit rather superficially.

Recalling Sergi's anthropological theories, the *Dictionary* asserted that "physically the Italians are anything but a homogeneous race". There were two distinct ethnic groups: the inhabitants of North Italy, defined as "a very broad-headed ('Alpine') and tallish race"; and the inhabitants of South Italy, "a long-headed, dark, 'Mediterranean' race of short stature". The Southerners were believed to be closely related to Spanish Iberians and the Berbers of North Africa, descended from Hamitic stock. However, the *Dictionary* specified that the Southerners were not "Negritic [sic.] or true African, although there may be traces of an infusion of African blood in this stock in certain communities in Sicily and Sardinia". From a psychological perspective, the North Italians were pictured as "cool, deliberate, patient, practical, and as capable of great progress in the political and social organization of modern civilization", while the Southern Italians were described as "excitable, impulsive, highly imaginative, impracticable". As individualists, the latter had "little adaptability to highly organized society" (Reports, 1911, p. 82).

### Sergi's Mediterraneanism during Fascism

Between 1938 and 1942, the theory of the Mediterranean stock was the focus of a great debate. The *Manifesto degli scienziati razzisti*, written by Mussolini and Landra and published in July 1938, was a serious and direct blow to Sergi's anthropological theory. The document claimed that the concept of "race" was purely biological and not based on historic, linguistic or religious considerations (point 3), and that the Italian population was of Aryan origin (point 4). Furthermore, all the theories, which maintained that the European peoples were of African origin and that the Semitic and Hamitic elements belonged to the Mediterranean race, were dangerous for Fascist imperialism because they established inadmissible relations and ideological sympathies (point 8) (Maiocchi, 1999, pp. 327-329). This sounds almost paradoxical, since Landra had

worked as an assistant at the *Istituto di Antropologia* alongside Sergio Sergi and had been a supporter of Sergi's Mediterraneanism. However, after spring 1938, thanks to the influence of the leading German anthropologist Eugen Fisher, he began to embrace anti-Semitism, to uphold the Aryan origin of the Italian population and to support sterilization for degenerates (Gillette, 2002, pp. 65-67). In early August 1938, the Agenzia Stefani, the most important press agency during Fascism, ordered journalists not to use the word *stirpe*, which as we have seen Sergi preferred to *razza* (Tranfaglia, 2005, p. 150).

After the publication of the *Manifesto*, Sergi's works became the subject of heated controversy among the Italian scientists and intellectuals who embraced racism (Raspanti, 1994; Israel & Nastasi, 1998; Maiocchi, 1999; Gillette, 2002; Cassata, 2008; Israel, 2010). The supporters of "biological" racism (whose followers congregated around the journal *La Difesa della razza*, including the anthropologists Lidio Cipriani and Giovanni Marro, the journalist Telesio Interlandi, and the politician Giovanni Preziosi) and "esoteric-traditionalist" racism (represented by the esoteric writer Julius Evola) considered Sergi as the father of Italian anthropology, but made three sharp criticisms of his work. First, he had not recognized the Aryan origin of Italians. Second, he had maintained that the Jews, the Berber tribes of North Africa, and the Ethiopians belonged to Mediterranean stock. Third, he had distinguished the human ethnic groups on account of cranial characteristics considered unreliable. Sergi was also accused of having Jewish sympathies. For all these reasons, Sergi's theory was anachronistic and likely to undermine the regime's racial policy (Preziosi, 1940; Interlandi, 1940; Marro, 1941; Evola, 1942).

In opposition to these two groups, there were the supporters of "national" or "Mediterranean" racism, such as Giuseppe Genna, professor of anthropology at the University of Florence and Sergi's son-in-law, having married his daughter, the endocrinologist Nicola Pende, the economist and politician Giacomo Acerbo and the group supporting the journal *Razza e Civiltà*. Using

arbitrary quotes from his books, they affirmed that Sergi had always been a convinced racist, by demonstrating the superiority of Mediterranean race over the Nordic one (Pende, 1933; Acerbo, 1940; Genna, 1940). In April 1942, the *Consiglio superiore per la demografia e la razza*, directed by Acerbo, drafted a document, which rejected several statements in the *Manifesto* (above all the thesis of the Aryan-Nordic origin of Italians) and reaffirmed Mediterraneanism (De Felice, 1981, pp. 874-877). Nevertheless, Genna, Acerbo and Pende did not completely agree with Sergi. Indeed, they denied that the Mediterranean family included populations from North and East Africa. Apparently, the complete rehabilitation of Sergi's anthropological theories ran counter to loyalty to Fascist principles.

In sum, under Fascism, both critics and defenders used Sergi's theory of Mediterranean stock almost exclusively as an instrument of political struggle. Sergi's works, more often quoted than read, and more often misinterpreted than understood, were used to serve the interests of the different groups within the sphere of Fascist racism. Sergi, who had contributed to the development of anthropological studies, was considered, on the one hand, a traitor and, on the other hand, an ardent nationalist and a supporter of Fascist imperialism. Nothing could be further from the truth.

## Conclusion

Until recently, scholars often neglected Sergi's views on degeneration, eugenics, and human races (in contrast to his pedagogical and psychological ideas). This may be due to both technical and ideological difficulties. The first difficulty concerns Sergi's impressive intellectual production, with over 400 books, articles and reviews, dealing with widely differing subjects, ranging from criminal anthropology to Italian colonialism. The second difficulty is the non-fluid style and the terminology of most of these works, particularly the anthropological and biological ones, which are not easy to read and understand.

The third difficulty is Sergi's reputation among his contemporaries. For example, the writer and journalist Giuseppe Prezzolini considered his thought full of "contradictory theses and illogical statements" and his books and articles imbued with "castrated ideas, inconsequential facts, and vulgar feelings" (Prezzolini, 1904, pp. 14-15). The fourth difficulty is the decline of Italian positivism in the early years of twentieth century due to the revival of idealism thanks to the contribution of Benedetto Croce.

Sergi undoubtedly shared compromising and no longer acceptable prejudices: the inferiority of women and of the sub-Saharan races, the use of repressive measures to deal with "degenerates", to name but a few. Nevertheless, his morphological method for classifying skulls is a vigorous and coherent attempt to limit the misuse of craniometry and to integrate the study of human ethnic groups with qualitative data. Furthermore, his theory of the Mediterranean race or "stock" is a serious attempt to stem the fantasies of the supporters of the Aryan myth. Finally, there is his anthropological school with its long and glorious tradition. As one of the most important scientists of his time, Sergi represented a relevant chapter of the Italian and European history of science.

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