



CENTRO INTERUNIVERSITARIO  
DI RICERCA SEMINARIO DI  
STORIA DELLA SCIENZA



EUROPEAN SOCIETY  
FOR THE HISTORY OF  
THE HUMAN SCIENCES



SOCIETÀ  
ITALIANA DI  
STORIA DELLA SCIENZA

Welcome You To Bari, Italy



ESHHS conference

July 12 - 14, 2017

in collaboration with SISS

conference venue

University of Bari Aldo Moro

**Scientific committee:** Annette Mülberger (President of the ESHHS; CEHIC - UAB), Raffaella Simili (President of the SISS; Univ. Bologna), Ruud Abma (Utrecht Univ.), Jon Arrizabalaga (CSIC, IMF), Mònica Balltandre (CEHIC, UAB), Marco Beretta (Univ. Bologna), Michele Camerota (Univ. Cagliari), Maria Conforti (Univ. Roma La Sapienza), Jean-Christophe Coffin (Univ. Paris 8), Francesco Paolo de Ceglia (Univ. Bari), Jannes Eshuis (Open Univ.), Renato Foschi (Univ. Roma La Sapienza), Augusto Garuccio (Univ. Bari), Angelo Guerraggio (Univ. Bocconi), Noemi Pizarroso (UNED), Mariagrazia Proietto (CEHIC, UAB).

**Organizers:** Mariagrazia Proietto, Augusto Garuccio, Francesco Paolo de Ceglia.

**Local committee:** Anna Maria Macchia, Lorenzo Leporiere, Lucia De Frenza, Benedetta Campanile.

For more update information please visit the webpage: [www.storiascienza.uniba.it/ESHHS-2017](http://www.storiascienza.uniba.it/ESHHS-2017)  
or contact us: [eshhs2017@gmail.com](mailto:eshhs2017@gmail.com)



REGIONE PUGLIA



COMUNE DI BARI



# Book of Abstracts

**ESHHS**

(European Society for the History of the Human Sciences)

&

**SISS**

(Società Italiana di Storia della Scienza)

**Bari, July 12 – 14, 2017**

Mariagrazia Proietto & Benedetta Campanile (Eds.)

**Scientific Committee:**

Annette Mülberger (ESHHS President & CEHIC, UAB), Raffaella Simili (SISS President & Bologna Univ.), Ruud Abma (Utrecht Univ.), Jon Arrizabalaga (CSIC, IMF), Monica Balltondre (CEHIC, UAB), Marco Beretta (Bologna Univ.), Michele Camerota (Cagliari Univ), Francesco Paolo de Ceglia (Bari Univ.), Maria Conforti (Sapienza Univ.), Jean-Christophe Coffin (Paris 8 Univ.), Jannes Eshuis (Open Univ.), Renato Foschi (Sapienza Univ.), Augusto Garuccio (Bari Univ.), Angelo Guerraggio (Bocconi Univ.), Noemi Pizarroso (UNED), Mariagrazia Proietto (CEHIC, UAB).

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**Local Committee:**

Lorenzo Leporiere, Anna Maria Macchia, Lucia De Frenza, Benedetta Campanile, Eleonora Loiodice, Stefano Daniele.

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# Preface

The European Society for the History of the Human Sciences (ESHHS) meets every year with its members with purposes related to the promotion of international and multidisciplinary cooperation in scholarly activity and research in history of human sciences. This year the ESHHS Conference returns to Bari and establishes a partnership with the Società Italiana di Storia della Scienza (SISS). It will be a time for mutual discussions and enrichment favored by the friendly climate that the city of Bari guarantees for its long tradition of dialogues between different Mediterranean people and its surroundings.

In the prestigious setting of the ninety year old University of Bari Aldo Moro, the Seminar for History of Science welcomes members of the ESHHS and of the SISS societies, celebrating with its guests its fifty years of activity.

In 1967, a “Seminar on studies and research on the history of logical-mathematical, physico-chemical, biochemical and physical sciences and biological medicine” was born within the Institute of Philosophy of the Faculty of Humanities. Founding father was the historian of philosophy and epistemologist Antonio Corsano, who brought together the most prominent representatives of the scientific disciplines of the time: Michele Mitolo, Rodolfo Amprino, Vittorio Delfino Pesce, Aldo Romano.

Over the years, after Corsano’s retirement, they succeeded him in the direction of the Seminar: from 1975 to 1978 Francesco Tateo, professor of Italian Literature; from 1978 to 2011 Mauro Di Giandomenico, professor of History of Science; from 2012 to 2015 Pasquale Guaragnella, professor of Italian Literature. The current Director is Augusto Garuccio, professor of History of Physics.

During the direction of Mauro Di Giandomenico, the Seminar has acquired the autonomy of management that has led to the development of national and international activities. Among the initiatives the Seminar, together with the Domus Galilaeana of Pisa, founded the Higher School of History of Science and set up as chair of the Doctorate in “History of Science”.

In 2012, the Seminar became the Interuniversity Research Center, based on the association of six institutions, namely “Lucan, Molisan, Apulian University System” (Bari, Basilicata, Foggia, Molise, Politecnico di Bari, Salento).

Since its foundation, the Seminar has played a privileged role as mediator between scientific and humanistic culture and performed its tasks through the education of post-graduates and doctors in History of Science. Over the last fifty years, numerous initiatives have been launched to start research projects with innovative methods and instruments of national and international significance.

Its directors succeeded in ensuring continuity in the search for interdisciplinary dialogue based on language mediation to build shared knowledge. They enhanced publishing initiatives and maintained the line of development of multidisciplinary historical research, insisting on increasing the number of activities of dissemination in various forms of conferences.

The Seminar hopes to create the ideal environment for the meeting between the ESHHS and the SISS as it shares the objective of promoting the knowledge of scientific activities both in the History of Human Sciences and in the History of Science. SISS, in fact, encourages the spread of studies on scientific thinking with numerous initiatives. One of these initiatives consists in fostering national and international collaborations among the scholars in the field of these studies.

This conference is the first collaboration between ESHHS and SISS and therefore a challenge for members on both parts to see to what extent a fruitful dialogue and a long-term cooperation between both societies can be established.

The topics discussed this year at the conference offer a broader look at the rich research landscape explored by scholars of the two societies. This demonstrates Robert Fox' assertion that the scientific community is looking for a genuinely international and interdisciplinary model of organization that may reflect the idea that science has no frontiers.

This year the conference will be held with parallel sessions that will allow all participants to freely discuss the methods and languages of historical research and to discover the current directions of historical studies at a national and international level.

The wishes of everyone are expressed by the two respective presidents, Annette Mülberger and Raffaella Simili, and the director of the Seminar, Augusto Garuccio, who intend to provide through this collaboration a way for future cooperation aimed at overcoming barriers, such as old disciplinary limits, language difficulties and other barriers such as nationalities or gender biases.

Mariagrazia Proietto  
Benedetta Campanile



# Detailed Program

Venue: ‘University of Bari Aldo Moro’

Centro Polifunzionale Studenti (Ex Palazzo delle Poste), Piazza Cesare Battisti:

Room 1 – Valeria Solesin

Room 2 – Carlo De Trizio

Palazzo Ateneo, Piazza Umberto I, 1:

Salone degli Affreschi

## Connected activities:

The posters will be exposed next to the Reception area (secretary).

Exhibition *The time of Nature* of the artist Giuseppe Ciraci will be set up in the central hall of Centro Polifunzionale Studenti – Ex Palazzo delle Poste.

Coffee breaks and refreshments will be served in the hall near the main entrance to Salone degli Affreschi.

## Wednesday, July 12

9.00-9.45	REGISTRATION (Salone degli Affreschi)	
9.45-10.15	<b>WELCOME ADDRESS</b> (Salone degli Affreschi): Antonio Felice Uricchio (Rector University of Bari); Raffaella Simili (President SISS), Annette Mülberger (President ESHHS), Augusto Garuccio (Director Seminario di Storia della Scienza)	
10.15-11.00	<b>PLENARY LECTURE</b> (Salone degli Affreschi) Annette Mülberger <b>Psychological testing and classifications in Spain before and after the Civil War: continuities and changes</b>	
11.00-11.30	COFFEE	
11.30-13.30	<b>SPREADING KNOWLEDGE: TRANSLATION, POPULARIZATION, PSYCHOANALYSIS AND IRONY</b> (Room1) <b>CHAIR:</b> Ruud Abma Junona S. Almonaitienė <b>Emotional appeals in Lithuanian popular psychology writings as a mirror of the changing discipline and its audience</b> Olga A. Artemeva <b>Translations publishing practice in Russian psychology in the first half of 20<sup>th</sup> century</b> René van Hezewijk <b>In the next twenty minutes do not think of a white bear. Psychologists and irony</b> Marco Innamorati, Ruggero Taradel <b>The speeches of Pius XII on psychotherapy in 1953: Their impact and the influence of Agostino Gemelli's commentary on the spread of psychoanalysis in the Italian catholic world</b>	<b>SCIENZE DELL'UOMO E SCIENZE DELLA NATURA DALL'ANTICHITÀ AL MEDIOEVO [HUMAN AND NATURAL SCIENCES: FROM ANTIQUITY TO THE MIDDLE AGES]</b> (Room2) <b>CHAIR:</b> Antonietta D' Alessandro Isabella Labriola <b>Teorie della visione da Pitagora a Leopardi</b> Mario Loconsole <b>Sciant artefices e prima materia: il concetto di materia alle prese con l'alchimia</b> Marilena Panarelli <b>La salute come <i>viriditas</i> in Ildegarda di Bingen</b> Agostino Catalano <b>Dal <i>mechanicós</i> all'ingegnere scienziato: l'importanza della scuola medievale senese nella creazione delle moderne scuole di ingegneria</b>

13.30– 15.00	LUNCH	
15.00– 16.30	<b>COGNITIVE FUNCTIONS AND MIND-BRAIN INTERACTION</b> (Room1) <b>CHAIR:</b> Marco Innamorati  Christian G. Allesch <b>History of the body: the contribution of phenomenological psychology and its transdisciplinary context</b> Chiara Guidi <b>Organisms and environment: some historical-epistemological reflections on contemporary scientific knowledge on cognitive functions</b> Carmela Morabito <b>On cerebral plasticity and cognitive enhancement: the need for a real dissemination of scientific knowledge on brain and mind</b>	<b>CORPI VIVI, CORPI MORTI [LIVING BODIES, DEAD BODIES]</b> (Room2) <b>CHAIR:</b> Francesco Paolo de Ceglia  Lucia De Frenza <b>Col fiato sospeso. L’annegamento nella legislazione sanitaria italiana del Settecento</b> Lorenzo Leporiere <b>Quale corpo? Studi sulla medianità</b> Stefano Spataro <b>La rappresentazione della morte nei <i>medical dramas</i></b>
16.30– 17.00	REFRESHMENT	
17.00– 18.30	<b>SEXUALITY, CRIME AND CHILDHOOD</b> (Room1) <b>CHAIR:</b> Andrea Graus  Wendy Sims-Schouten <b>Mental health and safeguarding in Childhood (1880-1920)</b> Jimena Carrasco, Arthur Arruda Leal Ferreira <b>The history of minors criminal responsibility law in Chile: a genealogic exercise and an analysis proposal</b> Marcelo Valenzuela <b>The Chilean medical discourse on homosexuality and sodomy: 1885-1931</b>	<b>EVOLUZIONISMO E EUGENETICA [EVOLUTIONISM AND EUGENICS]</b> (Room2) <b>CHAIR:</b> Rossella De Ceglie  Alessandro Volpone <b>Lamarck e Darwin nell’ottica dei naturalisti italiani di fine Ottocento</b> Giovanni Cerro <b>Alle origini dell’eugenetica italiana. La selezione artificiale secondo Giuseppe Sergi (1841-1936)</b> Alfredo Musajo-Somma <b>Eugenica e ringiovanimento</b>
18.30– 19.00	BREAK	
19.00– 20.00	<b>Live performance</b> with literary comments & technological fantasies (Room 1) Vittorio Marchis, <i>Autopsy of a vacuum cleaner</i>	

### Thursday, July 13

9.00– 9.45	<b>PLENARY LECTURE</b> (Salone degli Affreschi) Francesco Paolo de Ceglia <b>The Florentines do it better. Images of the body and gender perspectives in anatomical wax modelling</b>
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10.00-11.30	<b>WOMEN IN THE HISTORY OF SCIENCE I</b> (Room1) <b>CHAIR:</b> Anna Borgos Federica Favino <b>Counting, female strategies of scientific career in the City of the Popes (1814-1870 ca.)</b> Alice Graziadei <b>Across the boundaries. Translations and circulation of Maria Montessori's scientific pedagogy. A compared study</b> Noemí Pizarroso <b>Historical psychology developments: Marinette Damuyant's analysis on the person and will in Indian thought</b>	<b>MYSTICISM, OCCULTISM AND DOUBLE PERSONALITY</b> (Room2) <b>CHAIR:</b> Monica Balltandre Kim M. Hajek <b>Double personality and multiple media: Azam, Férida, and the circulation of psychological case histories in late nineteenth-century France</b> Andrea Graus <b>Mystic trials in nineteenth-century Europe</b> Mauro Sebastián Vallejo <b>Early reception of x-rays in Buenos Aires (1895-1900). Science, occultism and literature</b>		
11.30-12.00	COFFEE <b>POSTER SESSION:</b> Tomoko Suzuki <b>Succession of Intelligence tests in Japan</b> Miki Takasuna <b>Yujiro Motora's around-the-world trip: First Japanese psychologist relates with Western scholars</b>			
12.00-13.30	<b>WOMEN IN THE HISTORY OF SCIENCE II</b> (Room1) <b>CHAIR:</b> Maria Conforti Mònica Balltandre <b>History, gender and possessions. Developments of the "paradigm of the abnormality": from mental illness to rebellion</b> Anna Borgos <b>Lillíán Rotter and "women's issues" in Hungarian psychoanalysis</b>  <i>Discussion</i>	<b>TESTI DI SCIENZA [TEXTS OF SCIENCE]</b> (Room2) <b>CHAIR:</b> Vittorio Marchis Argante Ciocci <b>L'Otica di Euclide in due manoscritti del XV secolo: l'Urb. lat. 1329 Biblioteca Vaticana e il codice P 81 sup. Biblioteca Ambrosiana</b> Francesca Antonelli <b>Le inedite Notes sur la Musique di Lavoisier. Un primo studio su un manoscritto dimenticato</b> Ilaria Ampollini <b>Toaldo traduttore di Lalande: transfert culturale e circolazione delle idee nei testi astronomici</b>		
13.30-15.00	LUNCH			
15.00-16.30	<b>PSYCHOLOGY VIEWED FROM WITHIN: GERMANY, U.S AND ITALY</b> (Room1) <b>CHAIR:</b> David Robinson Horst-Peter Brauns, Wolfgang Schönplflug <b>On the development of psychology in West-Berlin - a view from within</b> Ivan Flis <b>Fifty years of introductions: Hilgard's Introduction to Psychology (1950-1999)</b> Renato Foschi <b>"Honorable Mr. Professor..." the history around an unpublished letter calling for the foundation of scientific psychology in Rome</b>	<b>PSYCHOLOGICAL METHODS: EDUCATION, INTROSPECTION AND RESEARCH</b> (Salone degli Affreschi) <b>CHAIR:</b> Mònica Balltandre Gonzalo Salas <b>Relations between psychology and education in the pre-professional period of Chilean scientific psychology (1860-1946)</b> Arthur Arruda Leal Ferreira, Fabiano dos Santos Castro <b>Techniques of the self and introspective practices: The study of Edward Bradford Titchener text-books</b> Lucia Arminda Rossi <b>The University of Buenos Aires after the reform of 1920: research at the Psychological Institute in 1930</b>	<b>SCIENZE MEDICHE E SCIENZE UMANE TRA OTTO E NOVECENTO [MEDICAL AND HUMAN SCIENCES FROM THE 19<sup>TH</sup> TO THE 20<sup>TH</sup> CENTURIES]</b> (Room2) <b>CHAIR:</b> Liborio Dibattista Daniela Paradiso <b>Le tecniche anatomiche e il Trattato di Antropotomia, Italia, Pavia, Prima metà XIX sec</b> Gluco Ceccarelli <b>Psychotherapeia. Walter Cooper Dendy e l'influenza della mente sul corpo</b> Gabriella Sava <b>Lo studio di Giuseppe Mantovani sulla psicologia fisiologica</b>	
16.30-17.00	REFRESHMENT			

17.00 – 19.00	ESHHS meeting (Room1)	<p><b>MEDICINA E SANITÀ NEL MEZZOGIORNO D'ITALIA [MEDICINE AND HEALTH CARE IN THE ITALIAN MEZZOGIORNO]</b> (Room2) <b>CHAIR:</b> Alfredo Musajo Somma</p> <p>Chiara Pepe <b>La ratio e l'esperienza nello studio della medicina: il Ragionamento di Vincenzo Lanza</b> Benedetta Campanile <b>“I piedi da trincea”. Un enigma per la medicina della Grande Guerra</b> Caterina Tisci <b>Una goccia per la vita. L'assistenza all'infanzia nei primi decenni del Novecento. Il caso barese</b> Antonio Di Chiro <b>La penicillina scoperta in Italia: Vincenzo Tiberio precursore di Alexander Fleming</b> Marcella Tamburello, Giovanni Villone <b>Una grande scoperta scientifica che non ha cambiato la storia: il caso Tiberio</b></p>
21.00 – 23.30	<p>CONFERENCE DINNER Meeting at 20.45 in front of the main entrance of Centro Polifunzionale Studenti for the walk together to the restaurant</p>	

### Friday, JULY 14

9.00-9.45	<p><b>PLENARY LECTURE</b> (Salone degli Affreschi) Maria Conforti <b>Women's bodies and surgery in the late 19<sup>th</sup> century: an uneasy association</b></p>		
10.00-11.30	<p><b>WHEN WORLDS COLLIDE: THE VARYING FATES OF 20<sup>TH</sup> CENTURY INTERDISCIPLINARY PROJECTS IN THE PSYCHOLOGICAL DISCIPLINES I</b> (Room1) <b>CHAIR:</b> Sonu Shamdasani</p> <p>Alex Woodcock <b>Kenneth Waltz: international politics meets robot psychology</b> Tommaso Priviero <b>Hermeneutics of hell, 'neither science nor art, neither literature nor history of facts': C.G. Jung's own initiation to vision and his encounter with Dante's <i>Commedia</i></b> Dangwei Zhou <b>The forgotten book of Richard Wilhelm: Chinese economic psychology</b></p>	<p><b>SCIENZE DELL'UOMO E SCIENZE DELLA NATURA IN ETÀ MODERNA [HUMAN AND NATURAL SCIENCES IN THE EARLY MODERN AGE]</b> (Salone degli Affreschi) <b>CHAIR:</b> Marco Beretta</p> <p>Stefano Daniele <b>Indagine su un medico al di sopra di ogni sospetto (il caso Gelli-Bovio). Medicina, editoria e legalità nella Venezia del '500</b> Manuel De Carli <b>Le dissertazioni sul tarantismo in Olanda tra XVII e XVIII secolo: Wolfert Senguerd</b> Maria Chironna <b>Un'unica storia per la medicina: medici, omeopati e ciarlatani</b></p>	<p><b>STUDYING HUMAN BEINGS: PHYSIOGNOMY, GRAPHOLOGY AND TESTING</b> (Room2) <b>CHAIR:</b> Annette Mülberger</p> <p>David Horn <b>Graphologics: writing, character, and pathology in Jules Crépieux-Jamin and Cesare Lombroso</b> Oscar Montero Pich <b>Implementing and adapting of Woodworth's offenders test in Barcelona (1930)</b> Simone Guidi <b>“L'art de connoistre les hommes”. Marin Cureau de La Chambre's physiognomy</b></p>
11.30-12.00	COFFEE		

12.00-13.30	<p><b>WHEN WORLDS COLLIDE: THE VARYING FATES OF 20<sup>TH</sup> CENTURY INTERDISCIPLINARY PROJECTS IN THE PSYCHOLOGICAL DISCIPLINES II</b> (Room1) <b>CHAIR:</b> Sonu Shamdasani</p> <p>Dee McQuillan <b>A singular view on psychoanalysis as a science from James Strachey, London, 1939-45</b> Arthur Eaton <b>Collision or collaboration? Questions on the failures of Psycho(-)History</b></p> <p><i>Discussion</i></p>	<p><b>INDUSTRIAL PSYCHOLOGY</b> (Salone degli affreschi) <b>CHAIR:</b> Dennis Bryson</p> <p>Maarten Derksen <b>The tact and technology of Dale Carnegie</b> Zsuzsanna Vajda <b>Industrial psychology in Hungary in the Era of state socialism</b> Mariagrazia Proietto <b>The emergence of psychotechnics: the Italian case</b></p>	<p><b>SCIENZA, ANTROPOLOGIA E COMUNICAZIONE [SCIENCE, ANTHROPOLOGY AND COMMUNICATION]</b> (Room2) <b>CHAIR:</b> Gabriella Sava</p> <p>Vittorio Marchis <b>Una storia sbagliata. Ingegneria e scienze umane</b> Libera Paola Arena <b>Dalla VII Riunione Straordinaria della Società Italiana di Scienze Naturali (1878) all'Itinerario Geo-Storico. Un esempio di condivisione storico-scientifica</b> Eleonora Loiodice <b>Antropologia e storiografia della scienza in Giorgio Diaz De Santillana</b></p>
13.30-15.00	LUNCH		
15.30-17.30	<p><b>BEYOND BOUNDARIES: CASE STUDIES</b> (Room1) <b>CHAIR:</b> René van Hezewijk</p> <p>Ruud Abma <b>The disciplining of interdisciplinarity in the human sciences. A case study</b> Jannes Eshuis <b>Anthrozoology in the Netherlands: a case study in discipline formation</b> Inbar Graiver <b>Probing the boundary between knowledge and science in the history of psychology</b></p>	<p><b>SCIENZE FISICHE E MATEMATICHE NEL NOVECENTO [PHYSICAL AND MATHEMATICAL SCIENCES IN THE 20<sup>TH</sup> CENTURY]</b> (Room2) <b>CHAIR:</b> Augusto Garuccio</p> <p>Giambattista Formica <b>Sul "pensare" assiomaticamente nella riflessione di Hilbert</b> Francesco Guerra, Matteo Leone, Nadia Robotti <b>In nome della patria e della scienza: impegno civile e militare dei fisici italiani tra Ottocento e Novecento</b> Luigi Binanti <b>Attualità del pensiero di Vailati</b> Anna Maria Macchia <b>Misurare la scienza: una sonda esplora la platea. Il Servizio Opinioni RAI tra ricerca empirica e deco-difica del messaggio televisivo</b></p>	
17.30-18.00	<p><b>CONCLUSION:</b> Augusto Garuccio (Director Seminario di Storia della Scienza), Annette Mülberger (President ESHHS), Raffaella Simili (President SISS)</p>		
18.00 – 18.30	FAREWELL REFRESHMENT		
18.30 – 20.00	SIGHTSEEING (WALKING) TOUR IN BARI (optional)		



## TIMETABLE WEDNESDAY, JULY 12

9,00- 9,45	Registration (Salone degli Affreschi)	
9,45- 10,15	Welcome address (Salone degli Affreschi): Antonio Felice Uricchio (Rector University of Bari); Raffaella Simili (President SISS), Annette Mülberger (President ESHHS), Augusto Garuccio (Director Seminario di Storia della Scienza)	
10,15- 11,00	<b>Plenary lecture:</b> Annette Mülberger <span style="float: right;">p. 2</span>	
11,00- 11,30	COFFEE BREAK	
11,30- 13,30	<p><b>SPREADING KNOWLEDGE: TRANSLATION, POPULARIZATION, PSYCHOANALYSIS AND IRONY</b> <b>CHAIR: Ruud Abma</b> Junona S. Almonaitienė Olga A. Artemeva René van Hezewijk Marco Innamorati, Ruggero Taradel</p> <p style="text-align: right;">p. 3</p>	<p><b>SCIENZE DELL'UOMO E SCIENZE DELLA NATURA DALL'ANTICHITÀ AL MEDIOEVO [HUMAN AND NATURAL SCIENCES: FROM ANTIQUITY TO THE MIDDLE AGES]</b> <b>CHAIR: Antonietta D'Alessandro</b> Isabella Labriola Mario Loconsole Marilena Panarelli Agostino Catalano</p> <p style="text-align: right;">p. 7</p>
13,30- 15,00	LUNCH	
15,00- 16,30	<p><b>COGNITIVE FUNCTIONS AND MIND- BRAIN INTERACTION</b> <b>CHAIR: Marco Innamorati</b> Christian G. Allesch Chiara Guidi Carmela Morabito</p> <p style="text-align: right;">p. 13</p>	<p><b>CORPI VIVI, CORPI MORTI [LIVING BODIES, DEAD BODIES]</b> <b>CHAIR: Francesco Paolo de Ceglia</b> Lucia De Frenza Lorenzo Leporiere Stefano Spataro</p> <p style="text-align: right;">p. 18</p>
16,30- 17,00	REFRESHMENT	
17,00- 18,30	<p><b>SEXUALITY, CRIME AND CHILDHOOD</b> <b>CHAIR: Andrea Graus</b> Wendy Sims-Schouten Jimena Carrasco, Arthur Arruda Leal Ferreira Marcelo Valenzuela</p> <p style="text-align: right;">p. 23</p>	<p><b>EVOLUZIONISMO E EUGENICA [EVOLUTIONISM AND EUGENICS]</b> <b>CHAIR: Rossella De Ceglie</b> Alessandro Volpone Giovanni Cerro Alfredo Musajo-Somma</p> <p style="text-align: right;">p. 27</p>
18.30- 19.00	BREAK	
19,00- 20,00	<b>Live performance with literary comments &amp; technological fantasies:</b> Vittorio Marchis, <i>Autopsy of a machine</i>	

## PLENARY LECTURE

### **Psychological testing and classifications in Spain before and after the Civil War: continuities and changes**

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During the first decades of the 20<sup>th</sup> century we find in Spain a growing interest in psychology, and more precisely in what was called “applied psychology”, a general term referring to psychological research and work in the educational, clinical, social, industrial and juridical fields. Since the end of the 19<sup>th</sup> century the ILE (Instituto Libre de Enseñanza) had been translating and spreading foreign psychological literature, in 1902 the first university chair for psychology was established and two decades later several Institutes for Professional Guidance were founded. In a similar way as it happened in other places, the prestige of science and technology led scholars to eagerly incorporate new psychological testing methods and classifications. One of these instruments appropriated and adapted was the intelligence test, which in the eyes of physicians, pedagogues and psychologists was seen as a useful tool to differentiate and select children in public schools.

My research is linked to a current research project (MINECO HAR2014-58699P) which examines the use of tests and classifications by psychologists in Spain in the first half of the 20<sup>th</sup> century. In this context it is relevant to examine to what extent this differential psychology acquired specific traits when being employed in times of the Second Republic or under the Franco Dictatorship (in its early period). With the help of some examples I will show some typical ways in which the Binet-Simon test was adapted and used in the two decades before the outbreak of the Civil War (1936-1939) and in the two decades after.

After the war the scientific scenery had changed substantially. Psychology started a new period, characterized by the exile of some of the most charismatic figures. Now the organization and direction of philosophical and psychological studies was mainly in the hands of clergymen. In the historical works on this period, the role of the physician and psychologist José Germain and his collaborators in the restitution and institutionalization of a scientific psychology in the country was crucial.

How was psychometry used to classify human beings? To answer this question, it is necessary to examine specific uses of tests and questionnaires. At the same time, such use usually entails the construction of a standard or “normality”, versus “deviation” (or psychological abnormality). Likewise, I am interested in knowing, to what extent, had the employment of these methodologies changed before and after the war. My research highlights some mechanisms of adaptation during the 1940s and 1950s to the ideology of the Regime. Nevertheless, the psychology practiced at that time in Spain was very well connected to some kind of “applied” psychology practiced in other institutions outside the country.

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## **SPREADING KNOWLEDGE: TRANSLATION, POPULARIZATION, PSYCHOANALYSIS AND IRONY**

### **Emotional appeals in Lithuanian popular psychology writings as a mirror of the changing discipline and its audience**

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Popularization of scientific knowledge has changed enormously during the last century: its forms, the activity's implicit and explicit aims, and understanding of its functions in society. As some philosophers assert, science does not form our worldview today, and it's hard to imagine us to be shocked after we have heard about a certain scientific discovery (Vidauskytė, 2016).

It seems to be true speaking about natural sciences, first of all. Arts and humanities, as sciences, stay much closer to the possibility of influencing worldview formation, if their new ideas are presented and explained intelligibly to the general public. Psychology's place is somewhere in the middle, presumably. As Selterman (2016) states, "psychological science has been pivotal in shaping discussions about very important topics across the world", that's why "it is vital for scientists to continue publishing in mainstream outlets".

Like perhaps all the content appearing in mass media nowadays, popular science messages must be emotionally appealing in order to reach their audience's hearts and minds. Edutainment (the process of entertaining people and at the same time teaching them) is perhaps the dominant technique of the natural science popularization. Authentic narratives, presentation and analysis of distinctive cases are arguably the decisive tools for humanities. Although psychology may use the aforementioned equally, it seems that applicability of its knowledge for an individual (e.g. help in personal problem solving) is the main path chosen by psychologists. Reaching the extreme in popular "self-help" books, authors of such kind of popular writings try to guess the audience's preferences at the moment and to serve them. When science popularization obey similar rules too, "it works better as a mirror than a map" for the audience, according to Grant (2013), who refers to Davis (1971). And if significant part of the professional community responds to the audience's expectations, they may become a fulfilling prophecy forming the discipline itself.

Not only topics chosen, but also emotional appeals employed by popular psychology writers "mirror" as well as change the professionals' attitudes, their "production", the audience,

and relationships among them all. On the basis of this premise the research on emotional appeals used in popular psychology writings during different time periods has been started. What kinds of the emotional appeals were used by authors to gain the persuasive effect? How did they try to make their writings interesting and popular? Why were the appeals effective at the moment? These and similar questions are in the focus.

The research material includes several of the most popular psychology books intended to the general public, written, edited or reviewed by professional psychologists, published in Lithuania in three different periods: twenties-thirties, seventies-eighties of the 20<sup>th</sup> century, and in the last decade (21<sup>st</sup> century). A pilot research revealed visible changes of the appeals, congruent to the changes of widespread values and prevailing concerns of the period. More precise qualitative research including content analysis is expected to reveal more details concerning the processes. The presentation will take a closer look at them.

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## **Translations publishing practice in Russian psychology in the first half of 20<sup>th</sup> century**

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One of the main tendencies of a modern historiography of Soviet psychology is the reconstruction of its development as international (integrative) or national (isolated) science. An important indicator of both openness and closeness orientations of scientific community is existence or lack of the translations of the western books published in different years under edition and with prefaces of leading Russian psychologists.

For studying of translations publishing practice in Russia the analysis of scholarly works of the first half of 20th century has been carried out. Bibliography of 41 leading Russian psychologists of that time was analyzed. 39 translations of German, French and North American publications that prepared by 12 Russian psychologists were found.

The main number of the translations was edited by and they include introductions of L. S. Vygotsky. He took a part in publication of 12 famous books on psychoanalysis, psychotechnics, Gestalt psychology, behaviorism. Main topics of these books were pedagogical, developmental, cognitive, and comparative psychology. In Tsarist Russia works on philosophy were translated generally. The most part of the works published in Soviet Russia has been devoted to developmental psychology.

The greatest activity according to the edition of the translations took place from 1921 to 1935. The openness of Soviet scientific community and active reception of the ideas of foreign authors were promoted by free foreign language skills and the international contacts of Russian scientists who have got an education before revolution of 1917. Most of editors of the

translations have been studying in leading European universities before. Majority of them were personally familiar with authors of the translated books.

However in the late 1920s Soviet scientific policy started to focus scientists on creation of original Soviet psychology, different from Western “bourgeois” science more and more. The majority of the found translated editions of the late 1920s and early 1930s contain critical prefaces of Russian scientists. In 1936 there was resolution of the CPSU Central Committee “On Pedological Distortions in the System of People’s Commissariats of Enlightenment”. It limited research work of Soviet psychologists. After 1936 the leading psychologists for 15 years didn't edit any translation.

Thus, in the history of translations publishing in the USSR at that time it is possible to define three periods: 1) an active publication (1918-1925); 2) publication of books with critical prefaces (1926-1935); 3) refusal to publish translations (1936-1950).

Results of the research demonstrate a collision of two tendencies. On the one hand, in the national psychological community there was a demand of new scientific ideas regardless of their national roots. Researchers have been open to new psychological ideas, sought to carry them to members of the scientific community and to use them in psychological education. Besides the openness of Soviet psychologists for Western scientific thought in 1900-1950 allowed formulating own ideas in language, clear for foreign colleagues, and to be a part of international psychology. On the other hand, new Soviet government sought to protect scientists from ideological influence of Western academic society. As a result, gradual strengthening of isolationist orientation of Soviet scientific policy and Soviet psychology took place.

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### **In the next twenty minutes do not think of a white bear. Psychologists and irony**

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In his lectures as a visiting writer for poetry at the Goethe University in Frankfurt, Martin Walser discussed the concept of irony in philosophy and literature (Walser, 1981). Interestingly, in psychology few psychologists seem to use irony as a way to be able to try out positions that are unpopular, or that even conflict with their own opinions. However, some use the style and opportunities to do so. In my paper I will give examples of the use of irony in psychology, or should I say the use of ironic topoi by psychologists, the few that dared to or were allowed to.

I will discuss the use of irony by Johannes Linschoten (Linschoten, 1964), Daniel Wegner (D. Wegner, 1989, 2002; D. M. Wegner, 1994), Paul Rozin (Paul Rozin, 1996, 2003; P.

Rozin, Haidt, & McCauley, 1993; Paul Rozin, Millman, & Nemeroff, 1986), William James (James, 1890) and some other psychologists I may or may not trip over in the months to come.

A brief introduction into irony in philosophy and literature will be included. Batteries will not be included.

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**The speeches of Pius XII on psychotherapy in 1953:  
Their impact and the influence of Agostino Gemelli's commentary on the spread of  
psychoanalysis in the Italian catholic world**

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The attitude of the catholic environment towards Psychoanalysis followed a strange historical trajectory. The first period, from the appearance of the first Italian psychoanalytic writing until about 1950, was marked by a complete opposition. After the signing of the "Patti Lateranensi" and the Concordat (1929), the Vatican could have a powerful influence on the political and cultural life of Italy. It employed its power, among other things, to force the shutdown of the first Italian review of psychoanalysis. Mussolini had shown a certain interest in Freud's ideas and was even involved in an epistolary exchange with him. Despite having promised to exert his influence to allow the reopening of the "Rivista di psicoanalisi", not even Mussolini was able to overcome the veto of Catholics (Jones, 1953).

After World War II, there were some attempts outside Italy to integrate Psychoanalysis within catholic culture outside Italy, while the Italian Catholics stayed clear from Freud for quite a long time (David, 1966).

A very important role was played, in this field, by the two speeches about Psychotherapy, given by Pius XII in 1953, at the opening of two congresses: one at the World Congress on Psychotherapy, in Rome; the other in a medicine congress in France. The speeches showed an open attitude towards psychotherapeutic practices in general, but contained several admonishing

words against reductionist and materialist theories. These speeches were interpreted differently in Italy and abroad. In the United States, for example, it seemed quite obvious that Pius XII wanted to open the doors to Psychoanalysis (Herzog, 2016); in Italy the same words were interpreted as an absolute and total prohibition of psychoanalytic therapy (or, even worse, to practice it). Such a “non expedit” was factually effective until the pontificate of Paul VI (Foschi, 2016).

These second interpretation was expressly suggested by Agostino Gemelli, who at the time was the most influent personality of Catholic psychology in Italy. Gemelli published a book containing an in-depth hermeneutics of the Pope’s words, deducting a steady opposition towards Freud’s psychoanalysis, as towards Jung’s analytical psychology.

Only a few theories of psychotherapy would have been exempted from a radical criticism: among them Gestalt Therapy and Binswanger’s Daseinsanalyse (Gemelli, 1953). Actually, the Vatican did not refute neither the American opening interpretation, nor Gemelli’s. Our talk will deepen the historical context and the reasons of this hermeneutical divide.

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## **HUMAN AND NATURAL SCIENCES: FROM ANTIQUITY TO THE MIDDLE AGES [SCIENZE DELL’UOMO E SCIENZE DELLA NATURA DALL’ANTICHITÀ AL MEDIOEVO]**

### **Teorie della visione da Pitagora a Leopardi**

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La relazione si propone di dar conto di una ricerca che parte da osservazioni linguistiche, e da osservazioni antropologiche. Bruno Snell definì i Greci “uomini-occhio” (“Augen-menschen”, 1924), per l’importanza che per loro avevano gli occhi nel rapporto con la realtà (a differenza del popolo ebraico, che privilegiava l’‘orecchio’). Questo emerge dall’importanza della “autopsia” in ambito medico e in ambito letterario, in particolare nella storiografia. Che “gli occhi” fossero considerati come “testimoni più fedeli delle orecchie” è un pensiero di Eraclito, che attraversa, più o meno sotterraneamente, la letteratura storiografica, almeno fino a Polibio. Erodoto metteva la *opsis* (ὄψις) al primo posto, quando descriveva il metodo con il quale aveva raccolto informazioni sugli Egiziani, in una “ricerca” che voleva governata dalla ‘mente’ (γνώμη, II, 99). Lo stesso termine *historia* (ἱστορία), prima di approdare al significato di “storia” indicava la “ricerca”, e la ricerca fondata sulla ‘osservazione’ (valore che traspare non solo dall’intitolazione

di alcuni scritti ‘zoologici’ di Aristotele, ma è presente, ancora oggi, nella formula “storia naturale”). Nella lingua greca antica il ‘vocabolario’ del “vedere” è molto ricco, come mostrano, appunto, la letteratura medica e la letteratura filosofica: ad es., il termine “idea” (ἰδέα) rinvia direttamente ad una delle radici che esprime la nozione del “vedere” (√ιδ); la ‘opsis’ ha un ruolo importante sia nella fisiologia di Anassagora e di Ippocrate, che nella riflessione aristotelica sul dramma, in particolare sulla tragedia (nella *Poetica*). Questa realtà ha suggerito una ricerca che si pone all’incrocio tra ricerca linguistica (sulla terminologia greca) e ricerca scientifica (con particolare riferimento alla scienza e alla filosofia antica), con l’intento di approfondire il ‘vocabolario’ della visione, in una disamina che si presenta ricca di prospettive di sviluppo. Punto di partenza: le principali teorie sviluppatesi nell’età classica (e giunte fino all’età bizantina). In tale contesto si inquadrano le descrizioni dell’occhio: un tema antico, risalente già alla ‘scuola’ pitagorica, agli atomisti, ad Anassagora. In seguito, l’occhio e la vista sono stati ‘argomento’, e oggetto di indagine, della ‘scuola’ ippocratica, come dimostra lo scritto intitolato, appunto, *Sulla vista* (Περὶ ὄψις): già Ippocrate conosceva la ‘pupilla’, le tuniche oculari, etc. Il senso della vista è stato poi studiato nel contesto delle ricerche naturalistiche della scuola aristotelica, in particolare da Teofrasto (nel *De sensibus*, scritto che per un verso è fonte delle nostre informazioni sulla riflessione dei Presocratici, per altro verso era noto, con tutta probabilità, a Giacomo Leopardi, che sembra lo abbia preso a base della sua teoria e della sua poetica della visione). In seguito la conoscenza di questo organo è via via progredita fino a Claudio Galeno, e tali studi hanno avuto una importante ‘ricaduta’ in età tardo-antica e bizantina: ad es., in Asterio di Amasea (nel IV secolo), e in Fozio di Costantinopoli (IX secolo), al quale ha dedicato un importante lavoro Marie-Hélène Marganne, autrice di molti saggi sulle conoscenze ‘oftalmologiche’ dell’epoca).

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### ***Sciant artefices e prima materia: il concetto di materia alle prese con l'alchimia***

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Il proposito di questo studio è quello di indagare, attraverso l’analisi della recezione e delle peripezie di trasmissione di un famoso passo avicenniano, i risvolti del concetto di materia nel *De mineralibus* di Alberto Magno e verificare se questo possa considerarsi un momento decisivo per la storia dell’alchimia. Questa strada diventa inoltre una possibile chiave di lettura per penetrare più a fondo la concezione della materia nel basso medioevo, nel periodo cioè della prepotente entrata del *corpus* aristotelico in occidente. Ed è primario scopo di questa ricerca gettar luce su questo aspetto della filosofia naturale di Alberto Magno che tanto si impegnò a sistematizzare e a diffondere il pensiero peripatetico quanto a fornirne una interpretazione che

passava attraverso la lettura e la comprensione dei testi scientifici, alchemici e dei commenti arabi. Due sezioni compongono lo studio: una prettamente storica di ricostruzione delle vicende del passo avicenniano; l'altra filosofica che mira a ricostruire la sua recezione nella filosofia albertina.

Il celebre adagio avicenniano, citato nel basso medioevo latino spesso abbreviato con le parole iniziali *Sciant artefices*, esprimeva una certa riluttanza nel considerare possibile il processo della trasmutazione alchemica dei metalli fondamentalmente per due motivi: i prodotti artificiali sono sempre inferiori a quelli della natura; non si ha conoscenza delle caratteristiche che determinano le specie dei metalli e pertanto non si possono manipolare. Il passo in questione appartiene in realtà al *Kitab Al-Shifa*<sup>2</sup>, ma perviene in occidente grazie alla prima traduzione in latino attorno al 1200 da parte di Alfredo di Sareshel che lo inserì alla fine del libro VI del suo commento ai *Metereologica* di Aristotele lasciando pertanto adito a fraintendimenti sulla sua attribuzione.

Non sorprenderà allora che diversi autori (quali Arnolfo di Sassonia, Vincenzo di Beauvais e Ruggero Bacone) riprendano il passo diversissime volte in qualità di argomento contro la possibilità della trasmutazione alchemica. A rendere il tutto più intricato, in chiusura del passo nella traduzione di Alfredo si legge: *Hec igitur in illam permutari non poterit, nisi forte in primam reducantur materiam, et sic in aliud, quam prius erat, permutetur*. Ora, cosa si intende quando si dice che la trasmutazione può avvenire a condizione che si riporti il metallo alla sua materia prima? Il passo diventa problematico proprio perché viene proposta una soluzione che aristotelicamente parlando è inaccettabile (non si può mai dare il caso di avere la materia prima così com'è), ma proprio per questo risulta decisivo; inoltre la traduzione di Alfredo non rispecchia a pieno il testo arabo di Avicenna.

Anche Alberto nel *De mineralibus*, testo in cui arte alchemica e sintesi aristotelica si intrecciano, riprende il passo avicenniano. In tale opera, soprattutto nella discussione sulla forma dei metalli, Alberto mostra una capacità mirabile di muoversi tra le fonti alchemiche promuovendo un discorso filosofico e ad ampio respiro sulla natura dei minerali e intrecciando fonti diversissime ed eterogenee tra loro. Alla luce di quanto detto, due punti centrali verranno approfonditi ed indagati:

- l'importanza e la fortuna del passo *Sciant artefices* aprono nel XIII sec. una questione filosofica su come debba essere inteso il legame tra concetto di materia prima, operazione trasmutativa e scienza/arte alchemica;

- vi è un mutamento di prospettiva nella considerazione della materia che, perlomeno in Bacone ed Alberto Magno, comincia a stare stretto nelle maglie di una concezione genuinamente aristotelica di mera passività. C'è un doppio movimento in questo caso: sia Bacone sia Alberto riconoscono che il passo è problematico e lo riportano su di un binario filosoficamente più preciso e convenzionale; ma allo stesso tempo in entrambi i filosofi c'è un movimento rielaborazione del concetto di materia che si distacca da quello di mera potenzialità espresso nella *Metafisica* di Aristotele.

Ciò che dà valore allo studio del *De mineralibus* di Alberto in tale prospettiva è in prima istanza la sua enorme diffusione ed in secondo luogo l'enorme seguito che ebbe nelle opere alchemiche tardo-medievali.

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## La salute come *viriditas* in Ildegarda di Bingen

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Il concetto di salute in Ildegarda è uno di quei concetti da poter considerare alla stregua di ciò che Micheal Foucault nella *Archologie du savoir* chiama “campo di concomitanza”, esso cioè trae linfa e significato da differenti campi del sapere e non solamente da quello medico, anzi esso è forse proprio “il concetto” che più di ogni altro funge da criterio unificatore delle varie *scientiae* di cui Ildegarda si è occupata: cosmologia, teologia, fisica e quindi medicina hanno la loro ragion d’essere proprio nella *vera sanitas*. Esso viene strutturato e pensato anzitutto in ambito teologico: la salute era posseduta da Adamo prima di peccare, è il bene perduto a seguito del peccato originale ed è il fine cui il cristiano deve tendere.

L’apparato concettuale di riferimento di Ildegarda nella elaborazione del suo pensiero medico è il sistema umorale di matrice galenica, benché esso sia per certi aspetti rivisitato. Questione assai spinosa quella delle fonti cui Ildegarda abbia avuto accesso, la Badessa tuttavia non utilizza le canoniche denominazioni galeniche, limitandosi a parlare di un generico flegma che assume via via le qualità degli elementi: la classica quadripartizione umorale viene intesa in modo che due flegmi dominino su due tipi di *livores*, che sono gli umori secondari e i responsabili dello stato di malessere dell’uomo.

La principale modalità in cui si declina l’idea di salute in Ildegarda è la *viriditas*, concetto anch’esso traslato da ambito differente, primamente quello botanico, ed usato dalla nostra badessa insistentemente in più luoghi testuali con varie sfumature di significato. *Viriditas* si contrappone ad *arditas*, è la qualità della vita, delle piante, dalla cui *viriditas* può essere rinvigorita quella dell’uomo. Un concetto questo di sottile elaborazione, che attende un’analisi strutturata capace di delinearne la genesi, le applicazioni e di valutare la portata che tale concetto abbia avuto nell’indagine medico-botanica di Ildegarda.

La definizione dello stato di malattia e dello stato di salute nel sistema del sapere della “ancella del Reno” mira a chiarire anche l’effetto promotore dei suoi scritti; le opere scientifiche di Ildegarda costituiscono infatti la parte più problematica della sua intera opera, sia dal punto di vista contenutistico, sia dal punto di vista della tradizione manoscritta: i testi in questione, ovvero il *De causae et curae* e la *Physica*, riflettono un pensiero medico in cui è difficile tracciare il confine tra tradizione trasmessa dalle fonti ed originalità. Seguendo il filo rosso della *viriditas* vengono alla luce novità nel campo della farmaceutica medievale: la *viriditas* ora è la qualità da ricercare nelle piante, la quale si posiziona di volta in volta, a seconda dei momenti, in parti differenti di esse. Lo studio delle proprietà medicinali delle piante comporta per Ildegarda, lo studio della *viriditas* che in esse agisce.

Quello della *viriditas* resta uno degli aspetti più affascinanti del pensiero di Ildegarda, non solo per la “multidisciplinarietà” del suo utilizzo ma anche per il valore euristico che esso apporta all’indagine medica. Esso è il punto di accordo comune a microcosmo e macrocosmo, è la qualità comune a tutte le creature, nonché la qualità primamente riferita alla madre di Dio in *O viridissima virgo*, uno dei suoi *carmina* più significativi.

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## **Dal *mechanicos* all'ingegnere scienziato: l'importanza della scuola medievale senese nella creazione delle moderne scuole di ingegneria**

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*Mechanicos* era il termine con cui a Bisanzio si indicava la figura del costruttore. Tale era la dimensione di chi era destinato a occuparsi del cantiere realizzando quelle che erano le direttive progettuali che erano indicate direttamente dal committente sia privato che pubblico. Non si può parlare nè di architetto nè di ingegnere mancando quelle caratteristiche che si verranno a formare nei secoli e che nasceranno in modo alquanto “spontaneo” e non ragionato. A conferma di tale concezione occorrerà attendere il XIX secolo per codificare le scuole di Ingegneria che successivamente genereranno quelle di Architettura nel XX. Tale genesi ha radici antiche in quanto l'umanità ha sviluppato una “arte del fabbricare” che ha caratterizzato le varie aree geografiche, non culture diverse, in maniera differenziata legata all'uso fattibile dei materiali da costruzione, alle condizioni climatiche e alle calamità naturali come gli eventi sismici che la attuale ricerca tecnologico-archeologica propende a dimostrare abbia influenzato le scelte tecniche e costruttive al di là degli stili e delle esigenze compositive comunque perseguite fino all'arte pura.

L'evoluzione ha riguardato alcuni particolari momenti storici quali le cattedrali gotiche che restano un “mistero” tecnologico per un'arditezza strutturale inimmaginabile in una concezione statica legata alla regolarità in pianta e alle limitate altezze oltre che ai forti spessori delle sezioni resistenti costituite dai muri portanti. Proprio tale capacità ha visto lo sviluppo di una mentalità progettuale, comunque sempre legata alle conoscenze e alla sapienza costruttiva, che

ha iniziato in tale periodo a plasmare la figura moderna dell'ingegnere. Questa, seppur legata alla interpretazione delle motivazioni naturali nella conoscenza dei fattori di resistenza strutturale e dimensionale, verrà trasportata nell'arte per caratterizzare la figura dell'ingegnere – artista magnificamente interpretata da Leonardo da Vinci. Il genio toscano avrà inoltre il merito di iniziare a codificare tali fattori meccanici sulla scorta di interpretazioni scientifiche e matematiche svincolate dai fatti legati alla natura che saranno successivamente sviluppati da Galileo e altri scienziati ponendo i presupposti per la nascita della figura dell'ingegnere – scienziato che darà vita alle contemporanee scuole di ingegneria.

In tale logica di pensiero, e come prima riportato, grande importanza assume l'epoca medievale che a Siena, nel periodo tardo, vede la figura prima di Mariano di Jacopo detto "il Taccola" e poi di Francesco di Giorgio Martini, che molto impressionò fino ad influenzarne le ricerche sperimentali un giovane Leonardo, come massima espressione di una vera e propria scuola progettuale tecnologica. Gli scritti lasciati dai due precursori della scienza costruttiva codificata costituiscono il punto di riferimento primordiale, sulla scia vitruviana, di ciò che oggi nei corsi di studi di ingegneria è la disciplina della Architettura tecnica. Nel contributo si approfondiranno le tematiche relative alla scuola senese e a ciò che ne è derivato.

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## **COGNITIVE FUNCTIONS AND MIND-BRAIN INTERACTION**

### **History of the body: The contribution of phenomenological psychology and its transdisciplinary context**

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In the history of phenomenological psychology, the idea of a (re)conceptualisation of the body formed an essential theoretical question. In the German and Dutch tradition, the distinction between the physical body (in German: *der Körper, den man hat*) and the lived body (*der Leib, der man ist*) formed a characteristic feature of the phenomenological view of the physical aspect of human existence. This distinction was explicitly introduced by the German philosopher Helmut Plessner (1892-1985) in 1925 (cf. Krüger, 2010) in a common publication with the Dutch anthropologist Frederik J. J. Buytendijk (1887-1974). Buytendijk later (1965) referred to

this terminology in his *Prolegomena to an anthropological physiology* (*Prolegomena van een antropologische fysiologie*), distinguishing between “*het lichaam dat men heft*” and “*de lijfelijkheid die men is*”. We can find further examples of this distinction in the writings of Erwin Straus (1891-1975; *Vom Sinn der Sinne*, 1935), Maurice Merleau-Ponty (1908-1961; *Phénoménologie de la perception*, 1945) and other representatives of the phenomenological tradition in psychology. Besides this particular historical line there exist very similar approaches to this topic in various scientific disciplines and in the arts. This is a strong argument for a transdisciplinary view of the phenomenon of the bodily existence.

In my contribution, I will, on the one hand, refer to the classical theories of phenomenological psychology (e.g. Husserl, 1952), but, on the other hand, also describe their reception and continuation in recent approaches within and beyond psychology. Since the distinction of the lived body (*Leib*, *lijfelijkheid*) and the physical body (*Körper*, *lichaam*) is a specific characteristic of the German (and Dutch) language, the awareness for this difference was significantly greater in the German and Dutch phenomenological tradition than in other linguistic contexts. However, we can find an increasing interest in this discussion also in the writings of French existentialism (e.g. Jean-Paul Sartre, 1943; Gabriel Marcel, 1927; see Waldenfels, 1983).

Since the mid-1960s, there has been a continuous line of publications continuing this discussion until recently. Among those, special attention shall be given to the contributions of Hermann Schmitz (1965), Bernhard Waldenfels (2000), Jürgen Habermas (2001) and Gernot Böhme (2003).

In psychology, the term ‘embodiment’ refers to a growing tendency to refocus on traditional discussions on the relation of body and mind, which also include their application in psychotherapy and psychosomatic medicine. Although this recent discussion arose in the context of cognitive science, the term ‘embodiment’ is increasingly used to emphasise the complex interaction between body and mind in a broader disciplinary context, including social psychology and clinical psychology (cf. Petzold, 1998). It refers to the phenomena of nonverbal expression as well as to feedback effects of bodily states and movements on mental processing and emotions. From a historical point of view, also these current developments and discussions can be traced back to traditional approaches in the context of phenomenological psychology (Merleau-Ponty) or the Gestaltkreis tradition (Jacob von Uexküll, Victor von Weizsäcker). My paper intends to identify the crucial steps of this theoretical development.

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## **Organisms and environment: some historical-epistemological reflections on contemporary scientific knowledge on cognitive functions**

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In the last decades, a series of new acquisitions on the brain functioning has changed our theoretical models of understanding mind and behaviour. Historically, the brain has been studied focusing on the search of a specific area for a specific cognitive function. Nowadays, it has been widely accepted that every cognitive function can involve different cortical areas concurrently. The brain works in a way far more dynamical than how we could even imagine. Therefore, adopting an epigenetic perspective, recent researches in neuroscience have shown that the cultural and social environment has effects on the organizations of higher brain functions. An explanation of this mechanism is provided by neural plasticity, by which the brain is subjected to synaptic modifications and adapts itself on the local environment. This perspective has been widely emphasized by evolutionary biology, in particular in the theoretical proposal of niche construction theory. This latter, in fact, has shown how organisms and environment – intended as the environment relevant for the life of different animal species-co-evolve and adapt themselves to each others.

Enclosing in the environment cultural, social and technological products, the development of biological brain appears to be strongly tied with the habits of the world we live in, in a more inclusive modality than it has never been claimed. Thus, a very serious reflection on our interaction with technological environment can be argued here, since - as neural plasticity has explained - the use of a tool modifies cortical circuits in order to get the organism confident with it. Therefore, an external prop can reorganize the internal circuits of the brain, allowing the development of specific cognitive functions. This idea was pioneering in Vygotskij's thought, since the famous Russian psychologist suggested the expression “extra-cortical circuits” to highlight the cultural and environmental impact on the construction of neural circuits. In this perspective the use of a tool is an essential support for the development of our cognitive ability and our plastic brain are the substrates that allow this process. Moreover, Vygotskij can be mentioned here for his idea of “scaffolding actions” inspired by the assumption that individual actions can be performed by the helping of external structures.

Starting from a historical and epistemological analysis of Vygotskij's psychology, it will be emphasized in its heuristic value for the understanding of human mind and behaviour, showing its connection with new acquisition from contemporary neurosciences. In particular it will be argued that, recognizing the importance of scientific communication on these themes and its impact on society, this critical approach can serve as a ground for the development of a growing awareness of our nature as organisms embedded in our environment.

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**On cerebral plasticity and cognitive enhancement: the need for a real dissemination of scientific knowledge on brain and mind**

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Contemporary cognitive neurosciences point to the great relevance of individual experience – sociocultural environment and interpersonal relationships – in the continuous molding of our bodies, brains and individual minds. The so-called ‘social and cultural neurosciences’ (‘interpersonal neurobiology’) are clearly aimed to study the essential connection between cognition, brain, body and environment.

The classical dichotomous view of biology vs. society and culture appears to be inadequate to explain the multiple ways in which the organisms and their environment co-evolve and reciprocally shape themselves. And humans’ environment (*Umwelt*) is primarily intended as the social, relational and affective environment in a cultural and pervasively technological context.

Rapid scientific and technological developments exert new demands and transform existing social, political, and cultural structures: thus, technology became a major player in education. In the last decades, a great amount of research has advocated innovating scientific and technological education through teaching contents of history, sociology, and philosophy of science and technology.

The digital devices can be pivotal instruments in holding together individuals, communities, organizations and political entities – but they can be a major source of conflict, ineffectiveness, and decay as well. So, scientific and technological education entails major issues involving cognitive and neurobiological aspects. It is of great importance the development and dissemination of knowledge about brain’s plasticity and the many ways in which it is continuously modified by individual experience and relationships. Contemporary social and affective neurosciences offer to us many useful insights on the way to better interact with ICT technologies, to enhance our cognitive functions paying attention in the same time to the distinctive characters of our mind and cognition which we could loose acritically assuming the digital paradigm. Literacy will be analyzed - within an historical-epistemological approach - as a case-study to critically reflect about the deep entanglement between natural and artificial intelligence.

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## **LIVING BODIES, DEAD BODIES [CORPI VIVI, CORPI MORTI]**

### **Col fiato sospeso. L’annegamento nella legislazione sanitaria italiana del Settecento**

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Nel XVIII secolo i governi illuminati italiani, nell’interesse di assicurare il benessere del corpo sociale, emanarono una serie di provvedimenti, che regolamentarono minutamente gli aspetti della vita privata e della comunità. La medicina politica nacque da questo ideale eudemonistico di provvedere dall’alto ai bisogni medico-sanitari della popolazione. Anche tutto ciò che atteneva all’ambito della morte fu codificato. In particolare, dai magistrati di salute (che in Italia si chiamarono localmente protomedici, provveditori o assonti) furono fissati i termini per il riconoscimento delle cause di morte, furono indicate le procedure per la certificazione del decesso e furono disposte le norme per l’inumazione e la tenuta dei cimiteri.

La morte per annegamento rientrò tra i casi specifici illustrati in queste opere. Essa venne trattata sia negli aspetti che riguardavano l’eziologia che in quelli relativi alla diagnostica. In alcuni casi furono anche esposti gli indizi per distinguere l’annegamento accidentale dall’omicidio simulato da incidente, fornendo indicazioni ai medici che collaboravano con i giudici per l’individuazione e qualificazione dei reati.

Le istruzioni per i funzionari sanitari erano la riduzione sul piano pratico delle idee, che scaturivano dalla riflessione fisio-patologica. La causa della morte per annegamento non era ancora chiara: alcuni l’attribuivano ad asfissia, cioè mancanza di aria, altri ad apoplezia, cioè ingorgo di sangue ed interruzione della circolazione.



Nella seconda metà del Settecento iniziò a farsi strada l'idea che non ci fosse un passaggio repentino tra la vita e la morte, ma che potessero essere individuate molte situazioni ambigue, nelle quali l'interruzione delle funzioni vitali risultava solo momentanea. In questo contesto la condizione dell'annegato apparve come una sorta di "vita sospesa", in cui il meccanismo vitale si bloccava, ma non era necessariamente rotto. Con opportune manovre o rimedi si poteva tentare di riavviarlo, richiamando in vita il malcapitato. Gli stessi magistrati addetti alla salute pubblica alla fine del Settecento furono investiti dell'autorità di definire regolamenti per il soccorso agli annegati.

La frammentazione degli stati italiani non consentì l'adozione di misure unitarie per la diagnosi della morte da annegamento e per l'attuazione, nel caso si manifestassero segni residui di vita, delle procedure di rianimazione sui corpi solo apparentemente morti. Il richiamo alle altre esperienze europee fu presente in tutte le proposte. Esse ebbero una forte caratterizzazione localistica, perché influenzate dalle scelte specifiche delle amministrazioni cittadine in materia sanitaria.

Attraverso questa produzione s'intravede il tentativo di costruire una specificità disciplinare, che accoglieva contributi dalla medicina e dalla chirurgia, grazie ai quali nel secolo successivo si definirà la medicina legale come ambito autonomo.

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### **Which body? Studies on mediumship**

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Stripped. Inspected. Held and bound. Measured. "Vivisected". The body of the alleged medium Eusapia Palladino was constantly the centre of attention of all scientists who studied her, from the early séances to the latest. It is hardly surprising considering that in those years

there was a strong supremacy of materialism, positivism and evolutionism in the field of psychiatry, and more broadly of medicine.

Several were the bodies that seemed to take form in Eusapia and just as many were the explanatory interpretations conferred upon her phenomena by these (alleged) experts. Different bodies, sometimes almost incompatible, other times close enough to overlap and blend one into each other.

The neuropathic body, defined such at first by Cesare Lombroso in an attempt to explain the mediumship and its complex phenomenology in terms of hysteria and more broadly of abnormality; the eroticized body, which writhes and moans as if in the throes of an orgasm, a body that catches the eye of the male observers while distracting it from something much worthier of attention; a split body that buds and exteriorise itself, the same body that bewildered alienists such as Enrico Morselli and physiologists like Filippo Bottazzi; the skilful body comparable to those of the most clever contortionists, capable of wriggling and stretching, and as a matter of fact the first body to be taken into consideration and curiously enough the one often believed to be the least interesting and the most improbable; the body as a tool, a body that works more accurately than any scientific device, or rather one able to compare and communicate with them.

My contribution intends to examine these interpretations, to capture some of these bodies in an attempt to slot these fragments into a much bigger and multi-coloured mosaic. On one hand reading into those interpretations, quite similar on several counts, first originated from the mediumistic observation of the Fox sisters, H el ene Smith, Florence Cook or Linda Gazzera. On the other, focusing on those related to the sensational discoveries of that age and to some scientific theories which one believed could be conjured up to account for these mysterious phenomena called, as a matter of fact, “mediumistic”.

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## **La rappresentazione della morte nei *medical dramas***

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A partire dagli anni '90 del XX secolo i nuovi serial hanno rottamato le regole della TV tradizionale, hanno introdotto personaggi complessi e migliorato la qualità della produzione, della scrittura e delle immagini. In alcuni di essi la rappresentazione del decesso ha raggiunto un ruolo di rilevanza. Con il nuovo secolo e l'ascesa di show televisivi come *CSI* e *Six feet under*, il cadavere diventa un attore costante della trama, non solo sulla scena del crimine ma anche nell'obitorio, nella camera ardente e nella sala operatoria.

Questa tendenza si avverte anche nei *medical dramas* del nuovo millennio, all'alba della cosiddetta *Third golden age of Television*. In essi però è centrale la raffigurazione del decesso, proprio a causa dei temi affrontati e del contesto in cui l'azione si svolge. In questo tipo di programma il passaggio tra la vita e la morte è riuscito a sviluppare autonomamente i suoi simboli e le sue tecniche comunicative. Grazie alla consulenza di staff medici, la malattia e il trapasso sono rappresentati qui in maniera piuttosto verosimile. Spesso però, per ovvi motivi drammaturgici, la morte ospedalizzata è fatta coincidere con il *bip* continuo dell'elettrocardiogramma piatto, il quale, acuto grido di dolore, si inserisce in un immaginario collettivo che fa della morte cardiaca una soglia non oltrepassabile: in qualche modo per la fiction televisiva i criteri di Harvard sulla morte cerebrale non ci sono mai stati.

L'obiettivo della mia relazione è mostrare come il genere del *medical drama* si sia evoluto a partire dagli anni '60 del XX secolo fino ai giorni nostri, in particolar modo nei riguardi della rappresentazione del momento della morte. Mentre nei primi serial di questo tipo vi è una quasi totale assenza di decessi, a partire dagli anni '80 si inizia ad avvertire un'attenzione verso argomenti che riguardano più da vicino la dimensione squisitamente professionale dei medici tra i quali, appunto, la morte. Solo verso la metà degli anni '90, dopo la diffusione di serial come *E.R.* e *Chicago Hope*, i medici e gli studiosi in generale hanno iniziato a preoccuparsi di come l'immaginario del pubblico possa essere condizionato da una rap-

presentazione realistica, e spesso troppo ottimistica, del contesto ospedaliero in televisione. Tale rappresentazione è dovuta anche al prepotente quanto prolifico ingresso della tecnologia nel mondo dell'intrattenimento: l'avanguardia degli effetti cinematografici ha permesso infatti di raffigurare in maniera più accattivante aspetti che non erano stati considerati in precedenza, come ad esempio i dettagli della corporeità o le nuove tecnologie a disposizione.

Partendo poi dall'analisi di tre serie statunitensi relativamente recenti, *E.R.*, *Grey's Anatomy* e *House M.D.*, cercherò di mettere in evidenza quali sono le scelte comunicative (attoriali o di sceneggiatura) e stilistiche (visive o sonore) adottate dai registi per creare alcuni stereotipi rappresentativi del decesso. Di qui il tentativo di far emergere i diversi modi in cui le tecniche cinematografiche riescono a suscitare nello spettatore il passaggio tra la vita e la morte e di far vedere quanto poi questi stereotipi siano verosimili rispetto al reale ambiente ospedaliero della nostra epoca.

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## **SEXUALITY, CRIME AND CHILDHOOD**

### **Mental health and safeguarding in Childhood (1880-1920)**

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This paper draws on archives from The Children's Society, a national children's charity in the UK, with a focus on narratives around mental health in children's case files from 1880-1920. The aim of this research is to create the basis for a more textured understanding of the origins of perceptions around mental health underlying much subsequent child welfare support, and inform practice and further research to improve outcomes. The term 'mental health' was popularised in the early 1900s by physicians and social reformers. Over a century later, mental health and wellbeing are recurrent themes in the media and on government agendas, with evidence that still more needs to be done on this front (Pilgrim, 2007). The starting point for this research is the notion that many of the issues that concern contemporary studies of childhood (e.g. parenting, poverty) have a historical trajectory that informs the present – see also Pugh's (2007) work on London's forgotten children. Mental health and mental illness are contested terms, which have been used to represent a range of concepts from psychological states to dimensions of health. Here the key question (which this research aims to answer) is what mechanisms are at play in problematizing mental health in childhood, and why are there still so many unresolved issues. Stigma plays a significant role, and understandings are subject to the

interests and values of the people, organisations and institutions attempting to define and interpret terms.

In my interpretive analysis of the case files (N=100) I will draw on the critical realist stance as proposed by Bhaskar (2008) and developed in my own research (Sims-Schouten and Riley, 2007), and Edith Stein's (2000) work on the interface between the material, personal world, and causal constraints. Drawing on this, I will 1. Analyse language/narratives around mental health/wellbeing in the case files (N=100, mixed gender/age); 2. Contextualise this within the historiography, societal mechanisms and social policy of the time; 3. Compare this with current developments and my own data from roughly 80 interviews with parents, practitioners and young people, that were undertaken as part of previous research projects (all are ethically approved and include permission to use this for further research).

Initial findings suggest that although language around mental health and wellbeing has developed (e.g. correspondence in 1880 refers to a young girl as a 'lunatic' and a father as 'hopelessly insane') the approach taken by those responsible for children's welfare has changed remarkably little in over 100 years. The research shows that Victorian authorities faced similar issues to the agencies involved in children's well-being today and that different organisations struggled with a joined up approach then, just as they do now. In addition to this, even in the 19th century only a minority of children came into care due to being orphans or having disinterested parents/relatives – the main aspect was the relationship between child and family (as it is now).

This research informs practice, academia and policy regarding a number of areas that remain under-developed. Firstly, how conceptualisations around mental health in childhood are enabled, constricted by, and made meaningful within, their social/political contexts; second how 'new' and 'old' understandings of mental health are debated, and what role individual and institutional expectations (medical, psychological, political, sociological) play here; thirdly, what lessons can be learnt here.

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**The history of minors criminal responsibility law in Chile:  
a genealogic exercise and an analysis proposal**

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This work is an effort to understand the recent construction of policies regarding addict and criminal young people in Chile. In this country, crime has emerged as one of the main concerns on the political agenda since the 1990s, with successive post-dictatorship governments proposing multiple plans and programs. At the same time, international organizations related to human and child rights have called into question the Chilean legal system for the protection of minors because they do not meet the standards established by the Convention on the rights of the child, ratified by the Chilean state.

In response to concerns about crime on one hand and child protection systems on the other, political discourse will give way to discussion on the phenomenon of juvenile delinquency. Various aspects are intertwined in this discussion, such as impunity before minors' law, the causes of the problem, the need for psychiatric and social intervention, the ineffectiveness of the reception centers of the National Service for Minors (hereinafter SENAME), among others. Finally, the legal system for the minors, which violates the law, will be called into question. This will shape a bill on juvenile criminal responsibility, which after several discussions in the congress will result in the enactment of Law 20.084 of Teen Criminal Responsibility (hereinafter LRPA).

In order to comply with the mandates dictated by the LRPA, the participation of different actors was defined: the most important are the courts of justice, bodies responsible for safeguarding the rights of the child and to ensure treatment programs for substance use. As a result of the joint actions of the different actors implicated, a framework/assemblage is created that involves techniques, government programs, institutional norms, professional knowledge, among others. This framework responds, on one hand, to the guidelines provided by the different actors (Ministry of Justice, The Ministry of Internal Affairs, the Ministry of Health and NGOs) and on the other, to the different expert knowledge (psychology, pedagogy, criminology, among others).

In this way, since the entry into force of the LRPA we can see the emergence of a new scope of action: the young offender. This corresponds to a minor (14 to 18 years old) who has committed criminal acts, which also require measures for rehabilitation and social reintegration, within which the treatment of addiction becomes relevant.

In the present proposal we lay out the historical hypothesis that the intervention on the adolescent law offender in Chile can be understood as the result of processes of configuration and articulation of three spheres of government: punishment and deprivation of liberty, care of minors and Control of drug use.

These elements will be approached from a historical perspective, that will consider the beginnings of prison, the emergence of the State intervention on minors and the intervention on

people with problematic drug use in poor groups since the middle of the 20<sup>th</sup> century (Illanes, 2004). We will also take on the historical review of the 1900 – 1960 period, regarding the alcoholism control and the regulation of medical use of substances (Becerra, 2013; Fernández, 2011).

Then, we propose that these areas of intervention are articulated and updated based on logics of a neoliberal strategies mentality, such as new effort strategies for crime prevention, the logic of care based on the idea of risk, policies oriented to youth focusing on employability and development of Human Capital (Carrasco, 2015).

Finally, we propose the importance of genealogical exercise as a tool for a critical understanding of the current intervention mechanisms of young offenders, in order to understand the conditions that have made them possible, remarkably the assemblage of different government spheres.

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### **The Chilean medical discourse on homosexuality and sodomy: 1885-1931**

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This paper analyses the knowledge / theories / knowledge used by Chilean doctors and lawyers to explain pathologies and condemn sexual practices between men from 1885 to 1931. Different scientific approaches (French legal medicine, degeneration theory, Italian criminology, Lyon criminology, psychopathology and endocrinology) circulated in the academic world during this period, legitimating the condemned for these practises.

These medical and ‘scientific’ discourses were used in article 365 of the Chilean penal code to punish, during three years in prison, to those found guilty with the crime of sodomy. Between 1885 and 1931, there was a conceptual cohabitation used by medical science and Chilean criminal law, coming from European scientific models (German, Italian and French), to punish sexual practices among males: pederasts, degenerates, sodomites, abnormal, Uranists, homosexuals, among others.

I will analyse the ‘adaptation’ of the French legal medicine in Chile, using the compendium of legal medicine published by the Chilean doctor Federico Puga Borne, who suggested to incorporate sodomy, as a pathology, in the penal code, according to the criteria of Ambroise Tardieu. In another hand, the Italian and French criminal anthropology can be traced



in the Chilean law, through the categories of the “abnormal” and the “born criminals”, shown in the writings of the lawyers: Tomás Ramírez, Enrique Gabler and Enrique Broghamer. I’ll finish the presentation, showing the endocrinology’s and homosexuality’s approaches, taken as reference the work of the Chilean doctors: Alejandro Lipchutz, Wadelmar Coutts and Alberto Gándara.

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## EVOLUTIONISM AND EUGENICS [EVOLUZIONISMO ED EUGENICA]

### Lamarck e Darwin nell’ottica dei naturalisti italiani di fine Ottocento

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Verso la fine dell’Ottocento, nei testi degli evoluzionisti italiani il nome di Darwin si accompagna spesso congiuntamente a quello di Lamarck. L’espressione tipica nella letteratura di settore è ‘l’evoluzionismo di Lamarck e Darwin’ (o ‘Darwin e Lamarck’, anche se meno frequentemente). Così si intitola, per esempio, un noto saggio di Giacomo Cattaneo, tipico esponente del Positivismo italiano, non a caso comparso sulla *Rivista di filosofia scientifica*. Non mancano contrapposizioni teoriche, ma neanche tentativi di mediazione e integrazione. Emerge l’idea che attraverso Darwin si abbia una sorta di ‘miglioramento concettuale’ nella teoria dell’evoluzione dei viventi. Punto d’incontro sembra essere il cosiddetto ‘pluralismo’ del naturalista inglese: Darwin concettualizza l’idea di ‘selezione naturale’ e conferisce a essa grande valore, ma non esclude l’azione in natura di altri meccanismi (talvolta definiti anche ‘ausiliari’), come l’uso e il disuso o l’influenza diretta dell’ambiente. Per lui, l’evoluzione è un fenomeno complesso; e la sua spiegazione suona grosso modo come segue: *a prescindere dal*

*modo in cui la novità evolutiva si produce (per insorgenza spontanea, oppure per influenza dell'ambiente, l'uso e il disuso, ecc.), alla fine è comunque la selezione naturale a decidere il destino della diversità generatasi.*

Nondimeno, dopo la distinzione di August Weismann fra plasma germinale e somatico, il panselezionismo di Alfred Russell Wallace e, soprattutto, in seguito alla nascita della genetica, il XX secolo ha finito per stigmatizzare la contrapposizione fra Lamarck e Darwin. Pertanto, diversi naturalisti, psicologi e antropologi italiani di fine Ottocento – tra cui per esempio Enrico Morselli e Giuseppe Sergi, per far giusto un paio di nomi – sono apparsi sotto una nuova luce: sono stati tacciati di essere dei darwiniani ‘atipici’, o di non esserlo affatto. Però, in base al discorso accennato, si concederà che questi giudizi andrebbero ripensati.

Da un punto di vista storiografico, è quanto meno ‘bizzarro’ che, fra la seconda metà dell'Ottocento e primi del Novecento, la quasi totalità dei seguaci di Darwin in Italia tratti indifferentemente di eredità ‘forte e debole’, a voler usare una terminologia odierna. In altre parole, non si può pensare che intere generazioni di studiosi, certamente più vicine alla logica e alla mentalità del naturalista inglese, rispetto al commentatore odierno, abbiano frainteso, mal interpretato o distorto la teoria darwiniana.

Un esempio valga per tutti. Il naturalista trentino Giovanni Canestrini, per antonomasia ‘il più darwiniano dei darwinisti italiani’, ha tradotto gran parte delle opere di Darwin, ha approfondito diversi argomenti e ha cercato con grande entusiasmo di diffonderne i principi fondamentali. Sicuramente conosceva a fondo la teoria di Darwin. Eppure, oggi rientra anch'egli nella tipologia menzionata. Nel *Dizionario biografico degli italiani*, per esempio, lo zoologo Baccio Baccetti scrive: «[Canestrini] fu certamente fra i primi [in Italia] a difendere, dalla cattedra, l'evoluzionismo. [...] Nelle dissertazioni scientifiche c'è però una singolare confusione, al punto che a più riprese si cerca di dimostrare l'ereditarietà dei caratteri acquisiti, chiamandola poi in causa a sostegno dell'evoluzione per selezione naturale». In realtà, l'apparente ‘confusione’ in questione non esiste, o, almeno, è tale solo con gli occhi del presente.

L'intervento cercherà di mettere a fuoco il caso di Canestrini e quello di alcuni altri studiosi coevi considerati particolarmente significativi, esemplari.

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### **Alle origini dell'eugenetica italiana**

#### **La selezione artificiale secondo Giuseppe Sergi (1841-1936)**

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Il presente intervento intende esaminare lo sviluppo del pensiero eugenetico dell'antropologo e psicologo Giuseppe Sergi (1841-1936), fondatore della Società romana di antropologia. L'opera di Sergi costituisce una sorta di laboratorio in cui emergono molti dei tratti caratteristici dell'eugenetica italiana, tra i quali il ruolo attribuito ai concetti di degenerazione e atavismo, l'importanza riconosciuta all'ambiente e all'igiene sociale, lo scetticismo verso la genetica mendeliana, l'azione antiselettiva della guerra. Corrispondente di Francis Galton e vicino all'antropologia criminale lombrosiana, Sergi può essere considerato la personalità più influente del movimento eugenetico italiano almeno fino al primo dopoguerra. Suo è il testo fondativo del movimento, *Le degenerazioni umane*, pubblicato nel 1889 per la casa editrice positivista dei Fratelli Dumolard. Nel volume Sergi definiva la degenerazione come una forma di adattamento incompleta alle condizioni ambientali; individuava e classificava i degenerati sulla base di categorie ampie, che includevano le cosiddette "classi pericolose" di fine secolo (pazzi, suicidi, criminali, prostitute, servi, vagabondi, mendicanti e parassiti); infine, negli ultimi due capitoli,

invocava l'adozione di strumenti eugenetici sia educativi sia repressivi per impedire la diffusione della degenerazione nel corpo sociale. Tra i primi erano previsti il miglioramento delle condizioni di vita delle classi popolari, attraverso la garanzia di un'alimentazione adeguata e il risanamento igienico dei centri più popolosi, la riforma dei sistemi scolastici e la promozione del valore educativo della scienza a discapito della cultura classica; tra i secondi, invece, auspicava il divieto di matrimonio, la costrizione al lavoro e la segregazione su isole deserte per gli individui considerati irrecuperabili come criminali recidivi, vagabondi, mendicanti e parassiti. Con il passare del tempo, operò un parziale ripensamento della sua proposta eugenetica, rilevando l'importanza dell'educazione come mezzo di miglioramento del genere umano ed esprimendo un esplicito rifiuto di misure coercitive, quali la sterilizzazione, la segregazione e l'interdizione matrimoniale, considerate di difficile attuazione e addirittura controproducenti. La rilevanza di Sergi non si limita all'aspetto teorico, ma coinvolge anche quello organizzativo. Dopo aver partecipato al primo congresso internazionale di eugenetica (Londra 1912), guidando la delegazione italiana, contribuì infatti nel 1913 alla fondazione del Comitato italiano per gli studi di eugenetica, un'associazione di cui fu anche presidente e che ebbe però vita breve. Durante la Grande Guerra, intese l'eugenetica soprattutto come salvaguardia delle giovani generazioni e assistenza alla maternità, così da assicurare il futuro della nazione. Al termine del conflitto, mise da parte i suoi interessi eugenetici per dedicarsi soprattutto a ricerche di antropologia fisica. Non partecipò al secondo congresso internazionale di eugenetica che si tenne a New York nel 1921, non aderì alla Società italiana di genetica ed eugenetica (Sige), fondata nel 1919 a Roma, né fu tra i relatori del primo congresso italiano di eugenetica sociale, svoltosi a Milano nel 1924. Tra gli anni Venti e Trenta, l'importante ruolo che Sergi aveva ricoperto nel movimento eugenetico italiano fu conquistato dallo statistico Corrado Gini che, in qualità di presidente dell'Istituto centrale di statistica (Istat) e del Comitato italiano per lo studio dei problemi della popolazione (Cisp), tra il 1926 e il 1932 fornì un contributo tecnico decisivo alle campagne nataliste del fascismo. Si trattava di un'eugenetica profondamente diversa da quella sergiana, più attenta agli aspetti quantitativi che qualitativi.

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### **Eugenics & rejuvenation: crossing frontiers in a revolutionary age**

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Through the first decades of the XX century the seductive notion that mankind can be gradually improved crossing a program of selective eugenics was widely accepted all over the world. Eugenics turned to be a movement which claimed to apply the science of heredity to encourage healthy reproduction and to discourage unhealthy reproduction. Darwin's ideas and their eugenic interpretation reflected contemporary debates about the role of natural law in the dynamics of society, history, and inheritance. Both physicians and politicians prompted necessary conditions for transfer into medicine ideas and methods of political economy, sociology and eugenics and therefore the origin of social hygiene was directly related to crucial revision of conceptions of causes and essence of diseases. As public health became one of the leading areas in medicine, prominent public professionals used eugenic theories to explain social problems. The innovative studies of immune/endocrine systems, development of new principles and mechanisms of nervous regulation of physiological functions and surgical techniques led also to a practice aimed at restoring the appearance of youth. The eugenics was fundamental towards the rejuvenation radical program.

Experimental gonads' transplant surgery and surgical hybridation among primates and men were unsuccessfully tested not only in the Western European countries, but even in the newly social and economic Soviet set-up, soon after the turmoil of the October 1917 revolution. Moreover German national socialism and the politics of interwar fascism adopted the rhetorically powerful language over the public health laws.

The most prominent physician of Italian constitutional medicine was Nicola Pende, during the fascist regime, and his direct links to Mussolini's government speeded him towards the nomination as the Rector of the newly funded University of Bari in 1924. His association

with the regime was instrumental in providing funding for the creation of a biotypology and orthogenesis institute in 1926 and to start the international circulation of eugenic knowledge, according to the Latin model, environmentalist and neo-Lamarckian.

Pende's approach to eugenics as a scientific programme as well as a cultural and political phenomenon allowed new links between Europe and the Americas developing a special interest towards rejuvenation trials and clinical experiences based on his endocrine system studies. The Nobel prize Carrel's endorsement rocketed the name of Pende towards the most significant research groups around the scientific world. Newly selected documents from Pende's archives offer interesting perspectives on his original studies related to endocrinology, eugenics and the medically assisted rejuvenation process.

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## TIMETABLE THURSDAY, JULY 13

9,00- 9,45	<b>Plenary lecture:</b> Francesco Paolo de Ceglia			p. 34
10,00- 11,30	<b>WOMEN IN THE HISTORY OF SCIENCE I</b> <b>CHAIR: Anna Borgos</b> Federica Favino Alice Graziadei Noemí Pizarroso <p style="text-align: right;">p. 34</p>	<b>MYSTICISM, OCCULTISM AND DOUBLE PERSONALITY</b> <b>CHAIR: Monica Balltandre</b> Kim M. Hajek Andrea Graus Mauro Sebastián Vallejo <p style="text-align: right;">p. 42</p>		
11,30- 12,00	COFFEE			
	POSTER SESSION: Tomoko Suzuki <b>Succession of Intelligence tests in Japan</b> Miki Takasuna <b>Yujiro Motora's around-the-world trip: First Japanese psychologist relates with Western scholars</b> <p style="text-align: right;">p. 45</p>			
12,00- 13,30	<b>WOMEN IN THE HISTORY OF SCIENCE II</b> <b>CHAIR: Maria Conforti</b> Mònica Balltandre Anna Borgos <i>Discussion</i> <p style="text-align: right;">p. 39</p>	<b>TESTI DI SCIENZA [TEXTS OF SCIENCE]</b> <b>CHAIR: Vittorio Marchis</b> Argante Ciocci Francesca Antonelli Ilaria Ampollini <p style="text-align: right;">p. 47</p>		
13,30- 15,00	LUNCH			
15,00- 16,30	<b>PSYCHOLOGY VIEWED FROM WITHIN: GERMANY, U.S AND ITALY</b> <b>CHAIR: David Robinson</b> Horst-Peter Brauns, Wolfgang Schönplflug Ivan Flis Renato Foschi <p style="text-align: right;">p. 52</p>	<b>PSYCHOLOGICAL METHODS: EDUCATION, INTROSPECTION AND RESEARCH</b> <b>CHAIR: Monica Balltandre</b> Gonzalo Salas Arthur Arruda Leal Ferreira, Fabiano dos Santos Castro Lucia Arminda Rossi <p style="text-align: right;">p. 56</p>	<b>SCIENZE MEDICHE E SCIENZE UMANE TRA OTTO E NOVECENTO [MEDICAL AND HUMAN SCIENCES FROM THE 19<sup>TH</sup> TO THE 20<sup>TH</sup> CENTURIES]</b> <b>CHAIR: Liborio Dibattista</b> Daniela Paradiso Glauco Ceccarelli Gabriella Sava <p style="text-align: right;">p. 61</p>	
16,30- 17,00	REFRESHMENT			
17,00 – 19,00	<b>ESHHS meeting</b>		<b>MEDICINA E SANITA' NEL MEZZOGIORNO D'ITALIA [MEDICINE AND HEALTH CARE IN THE ITALIAN MEZZOGIORNO]</b> <b>CHAIR: Alfredo Musajo Somma</b> Chiara Pepe Benedetta Campanile Caterina Tisci Antonio Di Chiro Marcella Tamburello, Giovanni Villone <p style="text-align: right;">p. 67</p>	
21,00– 23,30	CONFERENCE DINNER			

## PLENARY LECTURE

### **The Florentines do it better.**

#### **Images of the body and gender perspectives in anatomical wax modelling**

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Starting point of the lecture will be the anatomical universe of the *Museo della Specola* in Florence. Executed in at least two different periods in the history of wax modelling (in the late 17<sup>th</sup> century and between the 18<sup>th</sup> and 19<sup>th</sup> centuries), Florentine anatomical models project culturally determined images of the body, which could be analysed from a historical and semiotic perspective.

“Rotten corpses,” a “disembowelled woman” and a “flayed man” emerge as salient figures in the collection and reveal the close tie between anatomical representations and aesthetics, social relations and religious scruples: in other words, the culture *tout court* which produced them.

The lecture will then reconstruct the 19<sup>th</sup> century history of events regarding a few female wax models made in Florence. More or less faithful copies of the “Florentine Venus”, these models were destined for display in temporary exhibitions. That’s the reason why in their travels through Europe and the United States, they transformed the expression “Florentine Venus” into a sort of brand name used to label and offer respectability to pieces of widely varying quality.

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## WOMEN IN THE HISTORY OF SCIENCE (I-II)

### **Counting. Female strategies of scientific career in the City of the Popes (1814-1870 ca.)**

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In spite of what you may think, the Papal Rome was the scene of two important (if not unique) cases of female professionalization in the field of Nineteenth century science. In Rome led their lives and their scientific activities the botanist Elisabetta Fiorini Mazzanti (1799-1899) and the astronomer Caterina Scarpellini (1808-1873). Fiorini was the first woman to be admitted to the Accademia Pontificia dei Nuovi Lincei. Throughout her long career, she increased the number of plant species known in the Roman territory, was a pioneer in the study of bryophytes



(fungi, algae, mosses and lichens) going so far as to overshadow the lichen symbiosis, was the author of one of the few investigations of the *florula* of the Colosseum according to a method the validity of which is still recognized today. Caterina Scarpellini, trained by his uncle Feliciano (who was the founder of the astronomical observatory of the Capitol and of the Accademia dei Nuovi Lincei), dealt with the detection of meteorological and astronomical phenomena, as an assistant of the directors of the Observatory. To disclose the data of her investigations and the work in the Observatory, in 1847 she founded with her husband, also an astronomer, the magazine *Corrispondenza scientifica in Roma. Bullettino universale*, which received communications from several Italian and European scientists. In 1856 she established at the Observatory on the Capitolium even a meteorological and ozonometrical station, – as a private institution – which also took care of hydrometric and hydrothermal measurements of the river Tiber, to be published on a dedicated *Bulletin*. After her death, the Roman citizenship dedicated to her a funerary monument.

The Nineteenth century in Italy is a rather neglected period by gender studies focusing on the careers of women in science. It lies between the flourishing historiography concerning the renown exceptional cases of Eighteenth century ‘doctors’ (Laura Bassi, Maria Gaetana Agnesi, Elena Cornaro Piscopia) and the studies on female careers after women access to higher education, based on relevant statistical data. The case studies that I propose, allow us to reflect on a period of transition, testing historiographical categories successfully applied to other European coeval areas, on the Italian case. A further element of interest is the fact that the stories of Fiorini and Scarpellini take place within the framework of Papal Rome, a place traditionally disregarded as a major center of scientific culture, where it is supposed that the cultural constraints and the values that prevented women from practicing science were stronger than elsewhere. The careers of Fiorini and Scarpellini allow us to grasp the strategies adopted by women to provide themselves with a higher education and to try to affect the male academic world. The analysis of the working conditions of two professional ‘scientists’ also allows us to understand what further difficulties the experimental work caused to those to whom the laboratories were prohibited.

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**Across the boundaries. Translations and circulation  
of Maria Montessori's scientific pedagogy. A compared study**

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Maria Montessori is probably one of the most known and celebrated Italian scientists around the world. Before the end of World War I, Montessori's *Method: Scientific Pedagogy as applied to child education in The Children's Houses* (published for the first time in Italian in 1909) was translated worldwide, allowing her to be acclaimed internationally as one of history's great pioneering educators. Due to its speed and geographical extent, the spread of her scientific pedagogy and schools can surely be described as extraordinary, even more since it is a woman's work of the first half of the twentieth century.

My research focuses on the compared analysis of the *Method's* first translations, in particular the English (1912), American (1912), French (1912) and Spanish (1915) editions. The aim of this historical and philological study is to understand and highlight a) how Montessori adapted the original Italian text to make it more attractive for the foreign scientific, cultural, political and pedagogical contexts b) if and how much of these changes have been later included in the Italian editions following the first dated 1909. Furthermore, great part of the research is dedicated to the many figures surrounding Maria Montessori that worked as hard as she did to help in the spreading of her thought and book internationally. Indeed, editors, translators, journalists and intellectuals, as well as politicians and ambassadors played an essential role in her successful career.

During the talk I would like to focus on two main topics: on the one hand the *Method's* American translation, on the other the complex relationship that made it possible, the one between Maria Montessori and Samuel Sidney McClure, her publicist in the United States. The five years from 1910 and 1915 when Montessori was connected to McClure, reveal the story of the meeting, intersection, and interfacing of two very different and strong personalities, both determined at all costs to control what they saw as their own individual creation. To her, it was a revolutionary pedagogical method that challenged the conventional educational wisdom of the late nineteenth century; to him it was his capitalization on Montessori's American career itself. As a proof of the *Method* being a work *in fieri*, constantly influenced (because of both its nature

and international circulation) by a multiplicity of cultures, traditions and experiences, as well as always open to new discoveries, and verifications, Montessori herself explains in the American *Preface* why she felt the need to add two new chapters that were not included in the first Italian edition. In fact, from 1909 to 1913 she had the opportunity to clarify and point out some practical details and also to gather more information about how to keep the discipline in the Children's House. These results had to find space in a book that throughout its own life has been the reflection of Montessori's unceasing research.

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**Historical Psychology Developments:  
Marinette Damuyant's analysis on the person and will in Indian thought**

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The research program on historical psychology established by Meyerson in France after the Second World War (*Les fonctions psychologiques et les oeuvres*, 1948) counted from the very beginning with two main supporters. The most renown of them was Jean Pierre Vernant. Meyerson and Vernant met in Toulouse, where they both participated in the Resistance. The later applied Meyerson's principles to the study of the Greeks. Memory, time, space, work or will are some of the psychological functions Vernant follows through the myths, tragedies and philosophical texts of the ancients. The other, far less known, supporter is Marinette Dambuyant, Meyerson's student from his early days at the Sorbon. Dambuyant got her degree on Philosophy in 1925, a certificate in biology in 1930 and the *Aggrégation* in 1934. Subsequently, she began her career as a teacher in women secondary schools. Dambuyant was also a resistant, arrested by the Gestapo in 1943 and deported to the Ravensbruck concentration camp which she miraculously survived.

As core members of what Meyerson considered his team, Vernant and Dambuyant specialized in different ancient civilizations: while Vernant focused on Classical Greece, Dambuyant studied Ancient India. She learnt Sanskrit and worked closely with indianists like Paul Masson-Oursel, Paul Mus, and Louis Renou, reading fundamental texts like the Upanishads, the Mahabharata or the Rig Veda from the psychological perspective. Whereas Vernant reached the top of academic recognition, with a Chair in the Collège de France, Marinette Dambuyant passed into oblivion. She did not publish any books neither did she get a PhD, but she never stopped doing research. The few articles she published are the polished expression of a usually long, silent and discreet work, the result of what we would call today a real "slow science". These articles, together with the hundreds of book reviews which she published throughout her career (in the *Journal de Psychologie* and *La Pensée*) and the thousands of letters she exchanged with Meyerson from the 1930' until his death in 1983, remain a treasure to explore; not only do they constitute a testimony of the main developments in historical psychology in France, with special attention to the problems and difficulties it implies, but also a sharp regard to French philosophy and intellectual history.

Our goal in this presentation is to offer a brief introduction to Marinette Dambuyant's life and work, focusing on the psychology of the "person" through her own experience as a deportee in Ravensbruck; the history of the person and will in India; and her critical remarks to Meyerson and Vernant's books. We will finally offer a first reflection on the reasons behind the asymmetry between her career and that of Vernant, thinking of it as an interesting case study from the perspective of Gender studies.

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### **History, gender and possessions. Developments of the “paradigm of the abnormality”: from mental illness to rebellion**

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This paper discusses how to do history of demonic possessions today. I intend a reflexion of the conceptual frameworks that are featuring the way historians look at the topic. Along with witchcraft, the topic is one of the classic themes of historical research, which have engaged very different historiographical perspectives. Probably, as many as trends in history. Nowadays, is enjoying a return in the context of the historical approaches which have emerged over the last past two decades (Clark, 1999; Amelang, 2008). If history of human sciences is moving towards questions of gender, subjectivity, body and emotions, then so does history of possessions.

The aim of my paper is to draw a history of this field by identifying two narratives that underline academic works on possession done by historians. I argue that we can identify two kinds of narratives that came consecutively in the development of the history of possessions, particularly concerning female possessions. I name the first narrative that appeared in the historiography of possessions: the “neurotic” interpretation. This narrative was followed by a second one broadly in use nowadays that I call: the “subversive” interpretation. Both narratives involve aprioristic conceptions of the human nature and gender prejudices as they are mainly applied to historical female cases. Both narratives are ways of constructing history of female possessions with ahistorical assumptions about their behaviour.

The “neurotic” interpretation, borrowed from medicine, appeared at the end of the nineteenth century and understood possessed as mad. Following the French school of medical positivism of the nineteenth century (Jean Martin Charcot), some historians assumed that mental disorders, hysteria first and foremost, were behind the behaviours that characterized these possessions (Sluhovsky, 2002).

Although this pathologization is not in use anymore in history, some psychoanalytic derivations are present on current historical accounts of demonic possession. Recently, some

scholars have turned strongly towards explanatory models provided by psychoanalysis (e.g., Roper, 1994). The turn to psychoanalysis as a way of engaging with the topic has some dangers. It can reify and naturalize conceptions of gender, against what I think history should do. These studies can also lead to the pathologization of the epoch (Hodgkin, 1998; Opitz-Belakhal, 2009).

What I call the subversive interpretation of possessions, was introduced for the first time by Michel Foucault and became a significant point of address for subsequent scholars. This narrative, borrowed from social sciences, understands that female possessed bodies were rising up against early modern patriarchal societies. Although this last approach is more politicized and sensitive to sociohistorical factors than the former, I would like to call attention to other assumptions that I think are problematic. At least, because this narrative also carries with it some unhistorical assumptions in gender dynamics. This last type of interpretations must be even more strongly questioned, insofar as its ahistoricism remains less evident.

By analysing most recent contributions to the ongoing history of female possessions, I will problematize both narratives and I will suggest that more contextualize approaches are possible.

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### Lillían Rotter and “women’ issues” in Hungarian psychoanalysis

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The paper introduces and explores the work of Lillían Rotter, a remarkable member of the Budapest school of psychoanalysis dealing mostly with psychoanalytic child psychology and pedagogy. She was trained as an analyst by Imre Hermann, whose theories of attachment, ego

psychology and early object relations theory influenced her work. She published her most original ideas on women's psychosexual development. Her thoughts are part of the discourse that was going on in the 1920s on female sexuality and femininity in general, with the contribution of practically all significant analysts of the age. Contrary to the classic Freudian arguments about women's penis envy, passivity and their predisposition to masochism, which were followed for example by Helene Deutsch, Rotter considered women's subjectivity and sexuality much more autonomous. In her view, women experience the activity of the libido in a mediated way, pertaining to men's desires. Rotter's train of thought is paradoxical, though, as she saw the feeling of being attractive to men and utilizing their emotions as the key motive of women's autonomy, power and sexual pleasure. This means that a woman's desire is evoked by "men's gaze", the desire men feel towards her. With this, Rotter maintains the image of woman as the "object of desire", even though she interprets it as a possible instrument to gain power. This ambivalence represents contemporary ideas on and realities of women, reflecting and reinforcing an image one can also find in "high" as well as in popular culture.

Rotter's other important activity was related to child psychology and parenting. During the 1930s, she held popular seminars in the policlinic of the Hungarian Psychoanalytical Society for mothers, psychoanalysts and pedagogues on how psychoanalytic knowledge can be built into childrearing. The "ideal parent" is described by her as a straightforward, at the same time controlling and regulating figure, adapting children to bear tensions and to balance between instincts and reality. Her only book, published in 1946 (*The psychological development of the child*) summarizes these ideas, expressing contemporary thought on childrearing and "psychic hygiene", addressed to a wider circle of readers.

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## MYSTICISM, OCCULTISM AND DOUBLE PERSONALITY

### Double personality and multiple media: Azam, Félicité, and the circulation of psychological case histories in late nineteenth-century France

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In France, psychology is generally held to have emerged as an autonomous scientific discipline in the last three decades of the nineteenth century. For all researchers' scientific ambitions, the field did not coalesce around a single strand of enquiry during this period, but remained a web of competing epistemic frameworks. Common to these strands was a commitment to fixing in textual form the encounters between psychologist and subject – that is, to the importance of published case histories in the systematisation of psychological knowledge. I use “case history” as a useful placeholder here for texts which appeared in a variety of generic forms at the time: a subject's case might appear as a discrete “observation,” a researcher might cite it as evidence in a scientific monograph, or read it to colleagues at a learned society meeting. Frequently, the same case was communicated, published, and republished by its psychologist-author, whose versions of the story overlapped with discussion and critique by fellow researchers.

My paper follows one particular psychological case through this “mixed ecosystem” (to borrow a term from Fyfe and Moxham) as a way into exploring the circulation of case histories in emerging scientific psychology. The case relates the “doubled personality” of Félicité X..., an hysterical woman from Bordeaux whose “two lives” were studied over a number of years by physician Eugène Azam. Félicité's story, as told by Azam, appeared in print at least eight times in 1876 and 1877, in at least six different scientific/medical periodicals or society bulletins. What does this multiplicity reveal about the ways psychological knowledge diffused in 1870s France? How did Azam's account evolve in the web of interactions between printed texts, spoken communications, and learned critique? Is it significant (or unusual) that the case first appeared in print in the *Revue scientifique*, which aimed “to popularise [science] by making a scientific nation”? At stake, ultimately, is how the circulation and re-circulation of case histories inflected scientific knowledge-making about psychology.

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### **Mystic trials in nineteenth-century Europe**

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Why did nineteenth-century criminal justice interfere in alleged cases of stigmata, prophecies and other mystical phenomena? This paper revolves around this question and explores how several Catholic mystics from different European territories were brought into the courtroom. The early modern period offers rich examples of the role of criminal justice in the evaluation of the allegedly supernatural, especially in the form of witch trials (Stokes, 2011). However, during modernity we find less instances of the ways in which secular courts judged crimes with supernatural or occult implications. Such instances include trials of fraud in spirit photography, the imprisonment of charismatic leaders of sects and satanic societies, and the conviction of magnetic somnambulists and fortune tellers (Edelman, 1995; Zeigler, 2012).

It is clear that modern criminal justice was concerned with deviant religious cults and the lucrative exploitation of superstition. But this paper deals with Christian mysticism, a matter traditionally policed by the Church and where the intervention of the law was often deemed intrusive. Mystic trials took place within a revival of visionary mysticism in the nineteenth century, especially in Italy and France, with apocalyptic prophecies about the triumph of the Pope and the restoration of the *ancien régime*. While shaping the modern nation-states, the 'culture wars' of the era put a strain on ecclesiastical institutions (Clark and Kaiser, 2003). The cases examined by this paper occurred during such secular-Catholic conflicts, where the place of religion in society was being redefined. Furthermore, a positivist and medicalized approach to the supernatural prioritized the saying of experts other than theologians; anticlerical physicians and psychiatrists among them (Desmazières, 2010).

In order to bring an alleged mystic into the courtroom, the magistrates had to strongly justify their involvement in legal terms. Accusations of fraud and simulation were usually behind lawsuits against mystics; but there were also other implicit reasons, embedded within specific political and religious contexts (Garçon, 1929; Pelt, 1934). As I hope to show, most lawsuits had more to do with particular agendas by civil and ecclesiastical authorities, than with public concerns regarding a fraud. Despite national differences in the system of laws in European countries such as France, Spain and Germany, we find similar ways of proceeding when

confronted with alleged mystics. As I aim to demonstrate, common features ranged from the transformation of mystical experiences into facts in order to advance criminal charges; to the involvement of expert testimonies, such as physicians and psychiatrists, during the trial.

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### **Early reception of X-rays in Buenos Aires (1895-1900).**

#### **Science, occultism and literature**

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A few weeks after the discovery of the x-rays by the German physicist Wilhelm Conrad Röntgen, the first echoes of the novelty arrived in Buenos Aires. At the beginning of 1896, the first practical experiences held by photographers, physicists and physicians took place in the city. During that same year, local replicas of Röntgen's finding were numerous, in part due to the ease with which it was possible to have access to the equipment and materials in the international market. Without delay, the new technique was incorporated into medical offices and surgical procedures.

Several researches on the early history of radiology in Argentina have appeared during the last years. However, in that existing literature, the multiplicity of social agents involved in the early reception of objects and ideas related to X-rays, has not received attention yet. In fact, not only physicians and physicists became interested in the practical derivations and theoretical aspects of the irruption of those rays. Also writers, journalists and above all spiritualists participated actively in the local dissemination of knowledge and questions about Röntgen's invention. Moreover, it is possible to allege that the members of esoteric societies and the authors of fictions were the social agents who most extensively wrote on the X-rays in the last years of the nineteenth century. The purpose of this paper is to document the complex scenario of this reception, studying the way in which each of these social agents positioned themselves regarding X-rays.

In the first place we will analyze the extensive literature produced by spiritualists and occultists of Buenos Aires about the novelty. They saw in X-rays the long-awaited confirmation of their hypotheses, and the ideal source to underline the legitimacy of their doctrine and their demands. In fact, the invention of Röntgen fits perfectly the components of the esoteric scientific ideology. It showed with extreme clarity the existence of 'invisible rays' still unexplained but

real and capable of producing concrete effects. The arrival of Röntgen rays not only recalled that this invisible world was real and rational, but also supported the traditional assertion of scientific occultism: science should accept the study of seemingly implausible objects that could not be apprehended with the classical materialist language. Secondly, we intend to study the tasks carried out by Buenos Aires physicians. Unlike the inquiries that preceded us, we will address not only the concrete experiences, but also the speeches and other initiatives of the professionals. Revising their texts, the advertisements of their X-ray institutes, and especially the chronicles about the demonstrations or public exhibitions they performed, we obtain a fairer picture of the place that medicine had in the scientific culture of the end of century. In fact, we can verify that the theoretical implications they extracted were not very different from the esoteric statements. Finally, we will study a last group of discourses, which also played an important role in the reception of the rays. We will focus on fantasies and fictions, often of futuristic character, shaped in newspaper columns and stories that saw the light by those years.

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## POSTER SESSION

### Succession of Intelligence tests in Japan

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Intelligence tests are affected by culture and the period. This characteristic of intelligence tests results in the need for regular revision of tests. This study described the succession of intelligence tests through interviews conducted with test developers. Eight test developers

participated in this study conducted from 2010 for the digital archive of Japanese intelligence and developmental tests, by giving oral histories. These participants had developed or revised WAIS, WAIS-R, WISC, WAISIII, Tanaka-Binet Intelligence Scale V, Suzuki-Binet Intelligence Scale revised, Kyoto Development Test, K-ABC, KABC-II, HDS and HDS-R. Each participant described their professional background and how and why work related to test development was undertaken for 2-10 hours. These interviews were classified by focusing on different types of test succession, which identified four types. (1) Publisher Led type (WAIS-R, WAISIII), in which the test revision team was assembled by the publisher and revisions were conducted systematically without the researchers always knowing new team members well. (2) Research Center or Founding Society Led type (Tanaka-Binet Intelligence Scale V, K-ABC, KABC-II, Kyoto Development Test), in which test developers in test centers or test societies revised the tests independently of the publishers. (3) Revisions Conducted in laboratories (HDS, HDS-R). (4) Strong Will to Inherit the Heritage type (Suzuki-Binet Intelligence Scale revised), in which test users that were committed to a particular test revised the test to prevent it becoming obsolete. It is suggested that oral histories describing test revisions have a historical importance for the progress of methods and knowledge.

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### **Yujiro Motora's around-the-world trip: First Japanese psychologist relates with Western scholars**

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As I reported both at the ESHHS meeting in Angers (2015) and published thereafter (Takasuna, 2016), before WWII only six Japanese scholars had presented their research at an International Congress of Psychology (ICP). Among them was Yujiro Motora (1858-1912), who was invited to speak on Eastern philosophy at the fifth ICP congress (Rome, April, 1905). Motora, the first Japanese psychologist to earn a PhD from Johns Hopkins University in 1888, spent five years as a student and then, upon return to Japan, became a professor of psychology at Tokyo Imperial University. From 1904 until 1905, he again traveled abroad, this time not only to the US but to Europe as well. In summary, he left Japan for San Francisco mid-September 1904, continued to the East Coast, then left New York in November, where he crossed the Atlantic to London. Here he visited Cambridge and Oxford universities. In December, he traveled to Berlin, staying until the end of February, then moving to Leipzig where he remained for about four months. From July, he stayed in London for two months until finally departing Genoa for Japan mid-September 1905. Motora's US itinerary included meeting Daniel Gilman (1831-1908), William James (1842-1910), G. Stanley Hall (1846-1924), and George Trumbull Ladd (1842-1921). In May 1905, during his nearly seven-month stay in Germany, he joined the ICP in Italy and went to a meeting of German physiologists in Marburg. During this time, he met Wilhelm Wundt (1832-1920), Georg E. Müller (1850-1934), Max Verworn (1863-1921), and others. My

poster of Motora's trip around the world will be illustrated with photos to reconstruct the relationship between the first Japanese psychologist and Western scholars. This poster will celebrate the 14-volume publication of the *Collected Writings of Yujiro Motora* (2013-2016), edited by 10 members including myself.

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## TEXTS OF SCIENCE [TESTI DI SCIENZA]

### **Euclid's *Optics* in Two XV Century Manuscripts: Urb. lat. 1329 Biblioteca Vaticana and P 81 sup. Biblioteca Ambrosiana**

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Piero della Francesca cites Euclid's *Optics* four times in his *De prospectiva pingendi*, and always under the title *De aspectuum diversitate*.

The manuscript which Piero could have consulted for his study of Euclid's *Optics* has been identified in the Urb.lat. 1329, one of the codici that Francesco dal Borgo had had made in Rome at the end of the sixth decade of the XV century.

The codex Urb.lat. 1329 contains the following three heterogeneous works: 1) *Euclidis de aspectuum diversitate libellus* (ff. 6r-19r); 2) *Claudi Ptholomei de his que in Celo aspiciuntur libellus* (ff. 19v-42v); 3) *Machumeti De Algebra et Almuchabala id est recuperationis et opposicionis liber* (ff. 43r-63r). Even from a first look at the titles of these works there emerge two clamorous and macroscopic anomalies: 1) the title given to the *Optics* of Euclid (*De aspectuum diversitate libellus*) constitutes, in fact, according to Lindberg and Folkerts, a singular and unique exception to medieval manuscript tradition for this work of Euclid's ; 2) furthermore, the title of the second book (*De his que in Celo aspiciuntur*) does not refer to any known work by Ptolemy; in fact, this title is in error in that the text which follows is that of Euclid's *Phaenomena*.

Until now, it was thought that the only codex containing Euclid's *Optics* under the title of *De aspectuum diversitate* was the Vatican Urb.lat. 1329. However, I have found a second codex which presents the same anomalies in the titles of the works and which is conserved in the Biblioteca Ambrosiana di Milano under the shelf mark P 81 sup.

To what manuscript tradition do the two codici belong? What version of *Optics* is represented by the Vatican and Ambrosian manuscripts?

Heiberg, in volume VII of his critical edition of Euclid's *Opera omnia* printed in 1895, distinguished between an *A* draft of the *Optics* considered by him to be authentic and "genuinely" Euclid, and a *B* draft attributed to Theon of Alexandria dating therefore to the IV

century A.D. The main witness to *A* is the codex *Vindobonensis phil. gr. 31* indicated by Heiberg with the *siglum* V; to *B* is *Vaticanus graecus 204*. Moreover, the same two manuscripts are at the origin of the two drafts *a* and *b* of *Phaenomena*, a work which, although erroneously attributed to Ptolemy, is often transmitted in codices containing the *Optics*; in fact it is present also in Urb.lat. 1329 and in P 81 sup.

A comparison between the two manuscripts (Urb.lat. 1329, P 81 sup) and Zamberti's edition of 1505, a Latin version based on a collation of at least two exemplars of the B family, leads to the conclusion that the *Optics* contained in the two manuscripts is absolutely not traceable to the *A* draft and, in spite of some not totally marginal differences, displays the fundamental characteristics of the *B* draft.

The manuscript tradition that gives rise to codex P 81 sup. at the Ambrosiana and to Urb.lat. 1329, dates back to an Arab Latin version of the XII century; nonetheless, the humanistic revision of these mathematical works carried out by Francesco dal Borgo and Piero della Francesca demonstrates its own originality. Representing a departure from the Middle Ages are not only the humanistic cursive script and the attention given to graphics in the drawing of the figures, but also the Renaissance spirit of emulation behind this retrieval of the *Optics* of Euclid. Emblematic in this regard is the miniature at f. 1r that illustrates a perspective view of an urban street of the Renaissance period in the center of which there is a well with an octagonal base that brings to mind the one drawn by Piero della Francesca for *De Prospectiva pingendi* (Tav. XIV). This folio of Urb.lat. 1329 is an iconographic exemplification of the humanistic-renaissance concept of *emulatio*. The *Optics* of Euclid-Theon in fact becomes the classical text on which the new *prospectiva pingendi* will be based.

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## **Lavoisier's unpublished Notes sur la Musique: some new remarks**

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Lavoisier's biographers have sometimes mentioned his passion for music, but they have barely paid attention to his unpublished Notes sur la Musique. Nevertheless, this lengthy manuscript is the only work by Lavoisier which is extensively and exclusively devoted to this subject. As his biographer Édouard Grimaux already noticed in 1888, in the manuscript Lavoisier clearly deals with issues connected to music theory: he explicitly talks about consonances, dissonances and cadences, he tries to construct musical scales and chords and he reflects on rules for a good musical composition. However, this unusual writing has generally been neglected by historians, with the sole exception of Ferdinando Abbri's article, *Chimica e musica: le inedite Notes sur la Musique di Lavoisier* (1999), which is the first and only serious attempt to explore Lavoisier's interest in music theory.

My contribution aims to present the results of a new analysis of Lavoisier's Notes sur la Musique and to add some remarks on the current interpretation. In contrast with what has been previously stated, I will claim that the main source of this work lies in Alexandre Théophile

Vandermonde's ideas on music theory. Vandermonde, who is usually remembered as a mathematician who helped Lavoisier in some of his most important chemical experiments, was also the author of a little-known harmony system, called *Système d'Harmonie applicable à l'état actuel de la Musique*. Vandermonde's *Système* appeared in two different versions, both repeatedly submitted to the Académie des Sciences in 1778 and in 1780. They were also published in the *Journal des Sçavants*, as well as in the form of two independent brochures.

First of all, I will examine some excerpts from Lavoisier's *Notes sur la Musique*, in order to demonstrate to what extent they were influenced by Vandermonde's *Système*. At this stage it will be necessary to consider Vandermonde's published *mémoires*, along with some unpublished documents, preserved in the Archives de l'Académie des Sciences. In particular, I will rely on a hitherto unknown manuscript that concerns Vandermonde's musical notations, which is essential to understanding Lavoisier's reflections and speculations. Then, I will advance some hypotheses about the intellectual context in which the *Notes sur la Musique* might have been written. To this end I will describe the main intellectual features of Vandermonde's *Système* and I will briefly reconstruct some of the debates in which it has been involved. Finally, I will discuss how all these aspects can be related to Lavoisier's *Notes sur la Musique*.

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**Toaldo translator of Lalande:  
cultural transfer and circulation of ideas within astronomy texts**

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This contribution aims to examine the scientific collaboration between Giuseppe Toaldo (Pianezze, 1729-Padova, 1797) and Jérôme Lalande (Bourg-en-Bresse, 1732-Paris, 1807), focusing on two works by the French astronomer that Toaldo translated into Italian and on a third translation, published anonymously, which may likewise be attributed to Toaldo.

The Venetian astronomer and meteorologist Giuseppe Toaldo is a key figure of Paduan and Italian sciences of XVIIIth century. During the last 30 years, many studies (e.g. Bozzolato, 1984; Pigatto, 2000; Gramola and Rizzi, 2004) have been dedicated to this polyhedric scientist: special attention has been paid not only to his various publications (in different fields, such as meteorology, physics or astronomy), but also to his activity of professor at University of Padua and to his national and international correspondence, which clearly places Toaldo at the heart of an intensive network of contacts.

Among the connections established by Toaldo, there's one which still remains to be properly investigated: that between Toaldo and the French astronomer Jérôme Lalande. The reconstruction of their relationship is made more difficult by the fact that the correspondence between the two has been almost completely lost: although this massive lack, there are many other elements we can consider to delineate their scientific collaboration.

First of all, we know that Toaldo translated two Lalande's works into Italian: nevertheless, these translations have never been adequately studied. The first text is the *Abregé d'Astronomie (Compendio d'Astronomia colle Tavole astronomiche del Signor De La Lande ecc. Prima edizione italiana correttissima, con aggiunte e correzioni dell'autore istesso*, Padova, Stamperia del Seminario, 1777), addressed to the students of astronomy; the second one is the *Astronomie des Dames (Astronomia delle Dame del Signor De La Lande tradotta in italiano dalla seconda edizione*, [Venezia], Giacomo Storti, 1796), written for a female public – to which Toaldo interestingly added his own *Astronomia de' Gentiluomini* (Venezia, 1797). In order to analyze them, I will focus on the one hand on all those passages, lexical choices and modifications ascribable to the corpus of practices we call *cultural transfer*; on the other on those peculiar elements capable of spreading lights on Toaldo and Lalande's relationship and on the scientific exchanges between them – for example, the “Avviso ai lettori” in the *Compendio d'Astronomia*, where the great admiration that Toaldo reserved to Lalande clearly emerges.

Secondly, I'll consider some of Toaldo's manuscripts preserved at the Seminary Library of Padua, particularly those regarding comets and, more in general, astronomy, which may show the affinities between Toaldo and Lalande's interests and scientific opinions.

Finally, I'll argue that a third translation of a work by Lalande, the *Réflexions sur les comètes qui peuvent approcher de la Terre* (Paris, 1773), published anonymously in Venice in 1778, may be attributed to Toaldo or that, at least, Toaldo played a fundamental role in its publication.

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## PSYCHOLOGY VIEWED FROM WITHIN: GERMANY, U.S AND ITALY

### On the development of psychology in West-Berlin – a view from within

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As far as the historiography of psychology in the city of Berlin is concerned, divergent perspectives have been presented (cf. Schönplufg, W., & Brauns, H.-P., 2003; Teo, T., 2013). Apparently, the reconstruction of events has been affected by different presuppositions. This paper will elaborate a specific inner stance, focussing on psychology at the Free University of Berlin until the early seventies. We will follow a multilevel approach, that takes political, institutional, scientific, curricular, traditional and personal factors into account.

The relevant political background of the development was the decision of the four WWII allies to devide the former German capital into four sectors, governed by each of them according to their respective constitution and laws. While the then stalinist Soviet Union forcefully began

to install the political power in its realm for exiled members of the former German communist party, England, France and the United States realized a more democratic way. An increasing intolerance of the communist regime jeopardized research and teaching at Berlin's traditional university, then located in the Soviet sector. A couple of students left to initiate the foundation of the Free University in the American sector. Consequently, the first student generation exhibited a specific sensibility for any restrictions by any kind of power, in particular communist governance. Institutionally, this new foundation revived the former "Ordinarienuniversität", structured in faculties, with its rector and deans. Psychology was assigned to the philosophical faculty. Oswald Kroh serving as head of the Psychological Institute until his sudden death in 1955 has been charged because of his activities during the Nazi rule; later he was appraised for his democratic attitude by his coworkers and students such as Bergius, Franke, Holzkamp, Kaminski and Sodhi. A part of the of the pre-war tradition of Berlin's psychology was resumed as Wolfgang Köhler, the renowned director of Psychological Institute until 1937 joined the Free University in 1956 both as Honorary Citizen and Honorary Professor.

In a supportive social climate going along with increased funding the curricular requirements of the "Diplomprüfungsordnung" were implemented as well as innovative research, in particular in social psychology. As the institute gained reputation, Bergius, Franke and Kaminski got calls to professorships in West-Germany. Holzkamp was habilitated with a critical study on the foundation of experimental psychological research; his thesis was supervised by Hans Hörmann who succeeded Kripal Sodhi as director of the institute. When Hörmann successfully completed the staff with the Swiss Piagetian Aebli and A. O. Jäger, a former practitioner of organizational psychology, the institute represented during the late sixties to a large extent the full range of the discipline of psychology - well in exchange with European and American colleagues. These favourable effects of internal factors interfered with the external political decision to restructure the traditional university system. The question for an adequate localization of psychology soon became an intensively discussed ideological issue. The conflict drew the members of the institute in many respects apart, resulting in the establishment of two psychological institutes within the Free University of Berlin in 1970. Most conspicuously, one institute continued following the mainstream of international psychology, while the other adopted a Marxist orientation with the prospect of a radical revision of psychology. The dynamics of this situation are elaborated. In particular the interaction between academic psychology, the university administration and political authorities are discussed.

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## **Fifty years of introductions: Hilgard's Introduction to Psychology (1950-1999)**

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Textbooks serve multiple functions. They introduce a scientific discipline to students, codify the canon, and organize published research. In the 20<sup>th</sup> century, they are also becoming more and more the marketable products of a booming publishing industry. In this paper, I will take a particular textbook – Ernest Hilgard's *Introduction to Psychology* – and analyze its thirteen editions published from 1953 to 2000. My analysis will focus on the introductions spanning these thirteen books, where the textbook author produces a particular kind of overview of what is psychology; an overview aimed at layman. These introductions change through time reflecting a different and changing science of psychology in the second part of the 20<sup>th</sup> century. They also change in emphasis and style, as the authors and the needs of the teachers in the classrooms change. What is even more interesting are the things that stay the same: the methodological descriptions of what is psychological research, the overview of psychology and its history, and the argument of relevancy of psychology for the daily life of students. With a detailed and discursive analysis of these introductions of introductory textbooks, my aim is to take a fresh look at textbooks as a very specific genre of psychological writing which can be utilized for historical research on psychology. Textbooks, seen like this, tell us a particular story of what is psychology and how one presents it to laymen; but also, what are the ideal-type features of the discipline that the textbook authors decided to distill as representative of psychology. In my view, textbooks as historical sources are a particular kind of “portraits of a discipline”, manuals of boundary-work, and vehicles of indoctrination in the current mainstream of psychological research. They also serve a special role as abstracted conceptual frameworks of psychology which are put in simple language understandable to students, while being broad in scope and as informative as possible.

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**“Honorable Mr. Professor...” the history around an unpublished letter calling for the foundation of scientific psychology in Rome**

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The presentation will discuss how scientific psychology took root in Rome with the support of Luigi Credaro (1860-1939). Credaro was a philosopher and student of Wundt. Through the course of his life, he became professor of education, dean of the Faculty of Philosophy at the University of Rome La Sapienza, a member of the Radical Party, deputy and senator in the Italian Parliament, vice minister and minister of education. His political activity, which never aligned with the ideology of fascism, began in 1895 and ended with his death. One of the greatest protagonists in Italian politics until 1914, he was relegated to the margins of the country’s political life; firstly, because of the advent of nationalism during the years of the First World War, and, secondly, by the rise of fascism.

In 1903, a philosophy student of La Sapienza wrote him a private letter bemoaning the fact that the study of psychology in Rome was in poor condition and that professors Giuseppe Sergi (1841-1936) and Sante De Sanctis (1862-1935) lived with very few means for their lessons and research. The student then asked Credaro to promote the development of a “Roman school” of psychology.

After this letter, so far unpublished, space was found for psychology at the University of Rome. In fact, in 1904-1905, Credaro designed the training of Italian teachers and school inspectors (Pedagogical School of Rome) as an higher education degree and underlined the importance of not just the philosophical, but also the scientific, economic and psychological competences, that in his view teachers should possess.

The presentation therefore will address the subject of the link between pedagogy and applied “scientific” psychology during the early years of the 20<sup>th</sup> century.

In particular, I will review the conception, promoted by Credaro, of pedagogy as an application of psychology. Elements of this central focus on positive psychology in relation to pedagogy were already present in the writings of Sergi, who in the literature on the history of psychology is acknowledged mainly as an anthropologist, a natural scientist and one of the first Italian “experimental” psychologists, and is only marginally known for his educational writings.

The vision of Credaro, however, was in particularly close agreement with the work of De Sanctis and Maria Montessori (1870-1952), who both were professors of the “pedagogical school” of Rome, founded by Credaro, and who constituted the main representatives of the “Roman school” of psychology.

In the conclusion, the meaning of the word “school” will be addressed. It will be argued that this small group of scholars certainly shared a basic conception of psychology in terms of the objectives that applied and experimental psychology pursued, but they did not have the real characteristics of a psychological school with its own “manifesto,” specific journals and a *corpus* of psychological knowledge and methods that stand out in comparison to other European schools of psychology.

Moreover, this limited conception of psychological school was widespread in Italian historiography – it should be noted that, even in the letter sent in 1903, the student asks Credaro to promote the creation of a “Roman school of experimental psychology” – which described

psychology in Italy in terms of specific scholars (De Sanctis, Gemelli, Benussi, De Sarlo) working in the universities of specific Italian cities who were considered part of a “school” of psychology of that particular city (Rome, Milan, Padua, Florence, respectively).

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## PSYCHOLOGICAL METHODS: EDUCATION, INTROSPECTION AND RESEARCH

### Relations between psychology and education in the pre-professional period of Chilean scientific psychology (1860-1946)\*

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This study was carried out as part of the 11150436 FONDECYT project called “*Background, scenarios, and itineraries of educational psychology in Chile in the pre-professional period (1860-1946)*”. It proposes a characterisation that tries to recognize the relations between psychology and education in Chile during the already stated period through a variety of sources (e.g. books, articles, journals, scientific events, etc.). The study covers the period from the creation of the Primary Instruction law in 1860 to the executive order that professionalised psychologist training in 1946. The previous relations between psychology and education can be traced at least since the arrival of the Dominican Order to Chile in 1552 and the later arrival of the Jesuits in 1593, who permeated the subjects with Moral Philosophy by means of the *Ratio Studiorum* study program, including readings of Aristóteles, Kant, and Wolff (Hanisch, 1963).

In 1881, Andres Bello's posthumous work *Philosophy of Understanding* was published. This work deals with topics regarding mental and logic psychology, following the guidelines of the Scottish

School (Bello, 1881/1948). Lately, in 1883, *The organization of Normal Schools* was published (Núñez, 1883) as part of a report requested by the Chilean government to study the conditions of primary instruction in Europe and the American continent. This document discusses the moral education, school discipline, practical and theoretical pedagogy, and includes an analysis of the education of the blind and the deaf-mutes (Caiceo, 2010).

In 1880, another subject that became relevant was the one concerning school hygiene, which analysed all the classroom conditions, such as the education system, the individual conditions, and the personal hygiene of the students (Dávila, 1884).

Valentín Letelier's report regarding schools in Berlin was aimed at the "Supreme Government" (Letelier, 1885) to comment on primary school, especially including subjects such as school administration, teacher training, and didactic teaching methods (Mann, 1910).

At the end of the 19th century, it has been well documented the process stemmed from the creation of the Universidad de Chile's Instituto Pedagógico in 1889 during Balmaceda's government. This institution was a pioneer in teacher training in Latin America, and it formed the great masters that would later develop their work in the schools throughout the country. In order to carry this initiative forward, Chile got considerable inspiration from the German case. The formation of the institute and its one-of-a-kind status in this portion of the world (Labarca, 1939) presented excellence and attracted students from all the south-centre of the continent.

Moreover, the Secondary Education National Congress carried out in 1912 in Santiago provides evidence of the role that psychology plays in education. During the congress, Mann presented his philosophy teaching programme, which has psychology in a central position, as it provides the students with resources to recognise their mental work style, to guide their personality and their self-educative processes (Mann, 1912).

The beginning of the educative interest towards psychometrics starts in 1928 with the *Development of Intelligence Measured by Binet-Simon Method* (Tirapegui, 1928), whose goal was to offer teachers a scientific technique that would enable a thorough psychophysiological knowledge of the children, giving better efficiency to their work (Salas, 2012).

In conclusion, this period demonstrates how the relations between psychology and education were strongly developed in the national culture before the formation of psychologists, which allows new areas of development and progress in the construction of the then novel educational psychology in the mid-twentieth century.

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**Techniques of the self and introspective practices:  
The study of Edward Bradford Titchener text-books**

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This work represents an initial effort to use the Foucaultian concept of techniques of the self as a historical operator to obtain an understanding of the introspective practices present in psychological laboratories at the end of the 19<sup>th</sup> and beginning of the 20<sup>th</sup> century. Considering the objective of this work, we begin the text with a discussion of the concept of technologies of the self developed by Michel Foucault in the 1980s. From this initial standpoint we will work with this concept from the perspective of the categories of substance, *askesis*, modes of restraint and teleology. A very important aspect is Foucault's usage of the primitive Christian ethics to explain the emergence of psychological knowledge and practices, in the invention of a new ethical substance (our desires) and a new *askesis* (the hermeneutics of the self). Nonetheless, the objective of this approach is not in producing a general presentation of the concept of techniques of the self or a genealogical discussion of psychology. Rather more modestly, it seeks to evaluate the presence of some techniques of the self where they are unexpected: in introspective practices where the observers transform themselves into a scientific instrument through specific training. Our hypothesis is that these experimental and introspective practices lies in a space between the scientific method and what Foucault (1996c) calls spirituality, adopting new relationships between the self-production and the production of a true discourse. What specific type of *askesis* is generated by these laboratory techniques? With this question we will approach some descriptions of introspective practices and their training methods to see if they present techniques of the self, how these techniques are structured and what singularities they present in comparison to current psychological methods. In this presentation we will work with material from different sources, such as some Edward Titchener texts (1898, 1901-1905, 1912a, 1912b and 1913). Although we can find some clues in Helmholtz (1925) and Wundt (1998) works, Titchener is the author that presents us the more detailed material about introspectional practices, especially in his Text-Books. In general these texts presents a great number of exercises, but without a precise description of the introspection activity and training. Nevertheless Titchener (1913) presented an interesting clue when he described the general and special rules of psychological observation. The first “refer to regulating the stimulus and differ for different investigations” (p. 39). In particular, they refer to the regulation of experimental conditions. The general rules “refer to the disposition of the spirit and should be observed in all investigation in a similar way” (p. 39). These rules interest us most, as they could define a possible type of spirituality. They are basically: a) To be impartial; b) To be attentive; c) To be comfortable; d) To be perfectly rested. Finally we will establish a discussion of the political meaning of these experimental devices, inviting a dialogue with Bruno Latour’s (1997, 2004) *Actor-Network Theory* and Vinciane Despret’s (2004) *Political Epistemology*. These authors see scientific knowledge as articulation and co-affectation between entities in the unexpected production of effects. From this point of



view, scientific knowledge is classified according to good or bad articulations. In the first case, we have a situation where articulation is extorted or conditioned to a punctual answer, leading the investigated entities to a position of “docility”. In the second case we have an articulation where the researched entity goes beyond an expected answer that a given device proposes. This constitutes a relationship of recalcitrance (see Latour, 2004). These political/epistemological discussion will be used to understand the political sense of these possible techniques of self operations in the introspective designs.

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### **The University of Buenos Aires after the reform of 1920: research at the Psychological Institute in 1930**

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Argentina flourishes in an open democracy of full political participation after the First World War. Buenos Aires University is deeply reformed in a humanistic democratic way and autonomic functioning. A tripartite government in which cloister representatives are elected by graduate students and professors. Professors’ access to cloisters is regulated by public opposition contests.

In this scenery, Psychology becomes a significant discipline as its “Personality” concepts provides the basis to refund an active participative responsible person whose acts are decided by a psychological subjective process where values are related to personal feelings. A vital axiological psychology as Professors E. Moucht and C. Alberini propose, and a Philosophy of Subjectivity as Dean A. Korn, as owner decision; according to the new way in which political participation and social progress are the conditions required. Psychology courses at the university go accord this new conception on humanistic and philosophical Psychology with favorite authors such as Dilthey, Kant; Husserl; Bergson were included as mainly considered

bibliography. In his visit, Ortega y Gasset brings the approaches to German philosophy and psychology such as Psychoanalysis, Gestalt and Phenomenology. G. Lafora, from Spain, also presents Psychoanalysis as a method of research of deep human conflicts and as a science to give service to human benefit.

Contents are applied to institutions: Psychotechnics in Labor psychology research and psychometrics in education are considered important for social progress – as enlightens the progressive view of subjectivity. Psychotherapy begins to be offered in public Hospitals to help in workers' health in the '20, instead of focusing on social control through total institutions as Deposit of *Contraventores*, Asylums or Penitentiaries only in clinical or criminological perspective – that considers mainly regressive or negative aspects of personality: dangerously or mental illness.

When an Institute of Psychology is created in 1930 at the University of Buenos Aires; it opens 9 areas of research, each in charge of a prestigious professor. Its research production, but also professional and academic activity – as the Society of Psychology – and invited foreign Professors publish in the Journal, a true leadership encounter place over Latin America Psychology take place at the Journal: *Anales of the Institute of Psychology*

During the '30 biotipological approaches reappear a new way of naturalism. A bibliometric analysis of *Anales Journal*, 1937, 1941 allows a view of a declined psychology: medical psychological view conceived as biotipology, and philosophical view becoming into spiritualism and objective theories of value.

In the second postwar Argentina gets a new period of democracy of massive participation. Again psychological courses are inspired by the new humanistic trends: existentialism in the vision of J. P. Sartre and Phenomenology in a relative psychological perspective view of M. Ponty. The humanistic tradition will be rediscovered again in the '60.

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## MEDICAL AND HUMAN SCIENCES FROM THE 19<sup>TH</sup> TO THE 20<sup>TH</sup> CENTURIES [SCIENZE MEDICHE E SCIENZE UMANE TRA OTTO E NOVECENTO]

### **Le tecniche anatomiche e il *Trattato di Antropotomia*, Italia, Pavia, Prima metà XIX sec.**

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L'Anatomia, che ha come oggetto di studio il corpo degli organismi viventi, è una disciplina supportata da specifiche e più o meno complesse tecniche di laboratorio, distinte in tecniche di preparazione e tecniche di conservazione. Le prime servono a rivelare la struttura delle parti organiche, sia umane sia animali: tra queste figurano la dissezione, la macerazione e varie tipologie di iniezione. Le seconde, invece, servono a conservare queste parti per realizzare i preparati anatomici, a secco e in liquido, destinati alle raccolte museali.

A partire dal Cinquecento queste tecniche si affermarono in diverse realtà universitarie europee, giungendo alla fine del Settecento ad un buon livello di differenziamento e specializzazione. Tuttavia, a cavallo dell'Ottocento entrarono in crisi sul piano della rappresentatività scientifica, ossia sulla capacità di rendere realisticamente le strutture anatomiche (*truth to nature*) evitando il rischio di osservazioni suscettibili di interpretazione soggettiva. Consapevoli di questo limite, gli anatomisti delle varie scuole posero le tecniche anatomiche al centro di una fervida sperimentazione finalizzata a migliorarne la resa esecutiva e conservativa. Il risultato, tuttavia, fu la proliferazione di varianti personalizzate che mise le tecniche in crisi anche sul piano dell'oggettività (*objectivity*), ossia della riferibilità a procedure e metodologie standard universalmente riconosciute da tutti gli studiosi.

In Italia il Museo Anatomico dell'Università di Pavia costituì un importante riferimento per l'attività di preparazione e conservazione anatomica grazie all'opera degli anatomisti Pietro Moscati (1739-1824), Giacomo Rezia (1745-1825), Antonio Scarpa (1747-1832) e Bartolomeo Panizza (1785-1867). Quest'ultimo, consapevole dei limiti delle tecniche anatomiche, fu molto impegnato sul fronte della sperimentazione migliorativa delle tecniche per una migliore rappresentatività dei preparati, come dimostra la pubblicazione nel 1837 del *Trattato di Antropotomia o dell'arte di eseguire e conservare le preparazioni anatomiche* del suo allievo Angelo Dubini (1813-1902), a partire dalla rielaborazione e integrazione delle *Annotazioni* di laboratorio raccolte negli anni da Panizza.

Il *Trattato di Antropotomia* fu l'unica opera italiana interamente dedicata al tema delle tecniche anatomiche, in linea con analoghi manuali europei dell'epoca, ma superandoli per alcuni aspetti essenziali. L'opera, infatti, oltre ad integrare le tecniche note con procedure inedite realizzate secondo i dettami della scuola anatomica pavese, propose l'argomento con un approccio più sperimentale e non solamente descrittivo. Inoltre formalizzò un primo tentativo di standardizzazione delle procedure, prima mediante il confronto sperimentale di tutte le tecniche anatomiche note in bibliografia, poi con la scelta di quelle ritenute più efficaci nella resa realistica dei preparati.

Nell'evoluzione generale delle tecniche anatomiche, la pubblicazione del *Trattato* si colloca nel passaggio tra l'applicazione delle tecniche prevalentemente macroscopiche eseguite con i metodi tradizionali già noti nel Settecento, e quelle "d'avanguardia" sviluppatasi a partire dalla metà dell'Ottocento. Quest'ultime videro da una parte un forte sviluppo della tecnica

microscopica per lo studio dei tessuti, con la proliferazione di procedure tessuto-specifiche per ottenere i preparati per l'osservazione al microscopio a luce trasmessa, dall'altra il perfezionamento della conservazione in liquido per la *gross anatomy*, prima con la sostituzione delle soluzioni di dimora a base di alcool etilico con glicerina e poi con l'introduzione di vari metodi di fissazione in formaldeide.

Il *Trattato*, assieme alle *Annotazioni* di Bartolomeo Panizza, rivela, inoltre, l'interesse degli anatomisti pavesi nella pratica e nella sperimentazione di nuove procedure di imbalsamazione per preservare intatti i cadaveri interi destinati alle dissezioni, per conservare le salme destinate ai riti funerari e per produrre le mummie. Infine contribuì alla diffusione di alcune procedure di pietrificazione di organi e tessuti, in opposizione di tendenza rispetto ad alcuni noti "pietrificatori" dell'epoca, restii a rivelare formule e procedure, criticati dal mondo accademico per aver prodotto "feticci" più che preparati anatomici per la scienza.

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### **Psychotherapeia.**

#### **Walter Cooper Dendy and the influence of mind over body**

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This study is part of a wider research project which evolved from an interest in the first experiences of psychotherapy in Italy, with particular reference to the extra-psychoanalytical area, which until now has been poorly researched. The study project has gathered momentum with the recovery of some all but forgotten works, and in particular publications by Portigliotti (1903) and Giachetti (1913).

Given that right from the beginning of the present study it was clear that original schools of psychotherapy had not been established in Italy, a study project that concentrated on the international context was started and is still in progress (see Ceccarelli, 2009).

From the preparatory work for this project it emerged that the most important authors involved in the question in the last decades of the 19<sup>th</sup> Century and the first years of the 20<sup>th</sup> Century were Charcot, Tuke, Van Eeden, Van Renterghem, Déjérine, Bernheim, Liébeault and Dubois.

Going even further back in time, there is another interesting though all but forgotten person by the name of Walter Cooper Dendy (1794-1871). Dendy was born in Horsham, Sussex, moving then to London, becoming President of the Royal College of Surgeons. He was probably

the first to use the term ‘psychotherapy’ and published in 1853 two important studies on the subject: the book *Psukhê (Psyché). A discourse on the birth & pilgrimage of thought*, and the article “Psychotherapeia, or the remedial influence of mind”.

This paper concentrates its attention above all on the contents of Dendy’s aforementioned article. Here Dendy reported above everything else that the medical profession had abandoned the ancient fundamental principle which stated the existence of an influence of the mind over the body. In order to underline the importance of this influence, Dendy went even further and claimed that mind and body could, from a psychological point of view, be considered interchangeable terms. Making reference to numerous cases, even if in an impressionistic or anecdotal manner, he recalled how a thought, particularly a persistent one, or an emotion, especially if intense, could have pathological effects not only on brain tissue but on every part of the body.

However, for Dendy, the mind could have not only negative effects but also exert therapeutic influences, particularly if it was a ‘mens sana’. In this case, too, the author reports several experiences, but does not describe the exact procedure to be followed in order to use the ‘power of the mind’ in treatment. Even though he does speak explicitly of psychic treatment, he limits himself to mentioning the potentiality of ‘psychic antagonists’, or those ‘healthy’ emotions which, in his opinion, are able to oppose the effects of pathogenic ones.

The analysis of Dendy’s work carried out so far has not only led to the rediscovery of an important precursor, but has also produced elements supporting the hypotheses that conceive psychotherapy as having its origins (and applications) in studies relating to the influence of the mind over body, which recognise the initial channel in medicine (rather than in psychology), and which identify the original aims as being, above all, the treatment of the body rather than that of the mind.

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#### **Lo studio di Giuseppe Mantovani sulla psicologia fisiologica**

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Giuseppe Mantovani (1861-1916), dopo essersi laureato in Medicina e chirurgia ed aver esercitato presso la Cattedra di Anatomia dell’Università di Pavia, consegue, nel 1891, la libera docenza in Psicologia. Presso la stessa Università tiene, per diversi anni, l’insegnamento della disciplina e si occupa, in particolare, della psicologia fisiologica.

In un volume, intitolato *Psicologia fisiologica*, pubblicato nel 1896, delinea, in maniera alquanto originale, i compiti e i temi fondamentali di un settore di studi e di ricerche che, in Italia, non ha ancora raggiunto una chiara definizione dal punto di vista epistemologico e che non ha una precisa collocazione, dal punto di vista istituzionale.

A Mantovani e al contributo che egli ha dato agli studi di psicologia, sia nel testo a stampa, sia in un saggio manoscritto, intitolato *I sentimenti elementari*, non è stata ancora rivolta l'attenzione dovuta nella prospettiva di arricchire le ricostruzioni relative alla storia della psicologia in Italia tra Ottocento e Novecento.

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## **MEDICINE AND HEALTH CARE IN THE ITALIAN MEZZOGIORNO [MEDICINA E SANITÀ NEL MEZZOGIORNO D'ITALIA]**

### **La ratio e l'esperienza nello studio della medicina: il *Ragionamento* di Vincenzo Lanza**

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La relazione mira a porre in evidenza la peculiarità del pensiero medico-scientifico di Vincenzo Lanza (Foggia, 1784- Napoli, 1860), medico e professore all'università di Napoli, attraverso l'analisi del contenuto del *Ragionamento sul retto uso dell'analisi e della critica nello studio della medicina* (1832), tenuto in occasione della nomina presso l'università regia e successivamente pubblicato. Formatosi nella capitale partenopea, allievo di Domenico Cotugno e Antonio Villari, Lanza fu professore aggiunto presso la clinica medica universitaria dell'Ospedale degli Incurabili e, in seguito, dal 1832, titolare della seconda cattedra di medicina pratica della regia università di Napoli. Il suo pensiero presenta notevoli sfumature interessanti, tuttavia, ad oggi, risulta poco analizzato.

Consapevole della necessità di un rinnovamento della disciplina medica, che non riusciva fronteggiare le minacce rappresentate dalle epidemie che ripetutamente si riversavano sulle popolazioni, Lanza si prodigò nella ricerca di soluzioni congrue alle esigenze del momento. Partendo dall'analisi dei diversi tipi di approccio metodologico alla pratica medica, Lanza sviluppò un *modus operandi* che, se da un lato traeva nutrimento dalla medicina sistemica di matrice rasoriana, dall'altro tendeva verso un nuovo orizzonte, quello della medicina anatomo-clinica. Nel discorso del 1832 si individuano i punti salienti del metodo che si proponeva di

seguire e di illustrare agli allievi. A suo giudizio, la medicina della prima metà dell'Ottocento si stava spostando dal dogmatismo delle teorie sistemiche verso il cieco empirismo. Considerando entrambi gli estremi deleteri, Lanza individuava nell'analisi e nella critica due importanti strumenti del corretto *mudus cogitandi* del medico, il quale avrebbe dovuto svincolarsi da indirizzi dogmatici. Pur valorizzando l'osservazione dei fatti, Lanza metteva in guardia dall'eccessiva fiducia riposta nell'empirismo. I fatti, sosteneva, potevano rivelarsi insufficienti o fallaci, pertanto, era necessario ricorrere anche alla *ratio*. L'analisi, quale sintesi di ragione ed esperienza, rappresentava, dunque, un ottimo ausilio. Assodata l'importanza della sintomatologia, Lanza redarguiva, inoltre, sulla necessità di provvedere ad una classificazione dei fatti.

Sostenitore di una medicina analitica, riconosceva nella medicina ippocratica una valida antecedente, che riteneva fosse stata trasformata successivamente da Galeno in dogmatica. Figura di spicco nella comunità scientifica della prima metà dell'Ottocento, Lanza ebbe un ruolo di primo piano nel VII Congresso degli scienziati italiani, svoltosi a Napoli nel 1845, rivestendo il ruolo di Presidente della sezione Medicina.

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### **“I piedi da trincea”. Un enigma per la medicina della Grande Guerra**

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Già agli inizi della Grande Guerra tra le truppe in prima linea si manifestò uno “strano fenomeno”, definito “piedi da trincea”, che colpiva contemporaneamente gran parte dei soldati impedendone l'attività e costringendoli a subire, nei casi estremi, l'amputazione dei piedi. I comandanti non riuscivano a spiegare il verificarsi della patologia in condizioni di freddo non estremo. Non potendo individuare con precisione le cause, insinuarono il sospetto che la difficoltà di deambulazione dei soldati fosse prodotta dalla codardia. Iniziata la disputa tra neurologi e dermatologi, essa continuò tra i sanitari di tutti gli eserciti, che cercarono una soluzione attraverso l'indagine anatomica e la sperimentazione in laboratorio di tecniche di cura

con metodi e sostanze alternativi. Ciò produsse un numero di pubblicazioni superiore a quelle degli altri ambiti, come dimostra un censimento redatto sull'*Index Medicum* americano del periodo. Il motivo era la gran confusione tra le manifestazioni cutanee, dovute alle infezioni sopraggiunte al congelamento, e il congelamento stesso come problema circolatorio, del quale si ignorava l'eziologia.

I medici italiani, in particolare il maggiore Felice Pullé e il capitano Piero Casali, supportati dal generale Lorenzo Bonomo, sovrintendente del “Reparto per studi sulle congelazioni e sui particolari metodi di cura delle ferite” istituito presso il Comando Supremo, riuscirono a distinguere le cause ambientali, il freddo-umido, da quelle meccaniche, la costrizione delle calzature e a suggerire pratiche igieniche di prevenzione. Inoltre, grazie all'ausilio della nuova tecnica strumentale di laboratorio, la radiologia, associata alla microscopia e alla fotografia, l'indagine scientifica esplorò con nuovi “occhi” la patologia vasale, scoprendo la relazione tra la struttura vasale degli arti e i vari gradi del congelamento. Ne derivò un contributo importante alla conoscenza del funzionamento della circolazione sanguigna, che servì ad abbandonare definitivamente pregiudizi e vecchie teorie sugli umori e sul rapporto caldo-freddo nella cura.

Nella *Conférence chirurgicale interalliée pour l'étude des plaies de guerre* che si tenne a Parigi nel marzo 1918, emersero posizioni ancora discordanti sulla descrizione del fenomeno. Mentre i medici militari francesi avanzarono ipotesi antropologiche di correlazione tra il manifestarsi del congelamento e la provenienza razziale, gli italiani, in linea con i colleghi belgi e inglesi, illustrarono le conclusioni delle analisi di laboratorio e condivisero le normative adottate nelle pratiche igieniche di prevenzione e cura, a partire dalla rimozione delle mollettieri dall'abbigliamento dei soldati.

L'impostazione scientifica data alla comprensione del fenomeno ebbe, comunque, conseguenze economiche per le nazioni, perché modificò sia le metodologie di cura sia di prevenzione, salvando molti individui dalla perdita degli arti. L'esperienza della Grande Guerra impresso un indirizzo fondamentale alla ricerca sulla patologia vasale che proseguì nella Seconda Guerra Mondiale. Gli studi successivi determinarono un cambiamento sostanziale nell'affrontare le problematiche circolatorie dovute a condizioni climatiche particolarmente ostili e permisero la realizzazione delle nuove esplorazioni artiche in sicurezza.

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### **Una goccia per la vita**

#### **L'assistenza all'infanzia nei primi decenni del Novecento: il caso barese**

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La lotta alla elevata mortalità infantile tra la fine dell'Ottocento e i primi decenni del Novecento si concretizzò in Europa con la nascita di organizzazioni, le Gocce di Latte, destinate a distribuire del latte sterilizzato e quindi di buona qualità alle madri che non potevano allattare i loro bambini. Una delle cause principali della morte dei bambini nei primi tre anni di vita erano le affezioni del tubo digerente o gastroenteriti. La prima “Goccia di latte” fu fondata a Fécamp il 16 giugno 1894 dal medico Léon Dufour e ben presto si estese in Europa e nel mondo intero, come attestano i diversi congressi internazionali delle Gocce di latte che si tennero dal 1905. Attraverso l'esame di documenti d'archivio si ricostruirà la storia della Goccia di latte di Bari, sorta nel maggio del 1919 per provvedere all'alimentazione ed alla cura “razionale” dei bambini bisognosi e per assistere le madri povere in stato di gravidanza o durante l'allattamento. A partire dal 1922 fu infatti chiamata Goccia di Latte ed Assistenza materna con presidente Maria Luisa Devita. Sarà altresì oggetto di analisi la sua origine (per l'iniziativa dell'Ufficio Notizie per le famiglie dei militari di terra e di mare), i finanziamenti (ai quali contribuì con ingenti offerte la Croce Rossa Americana), la sua funzione morale e sociale, i rapporti con gli altri enti presenti sul territorio, i risultati raggiunti.

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## **La penicillina scoperta in Italia: Vincenzo Tiberio precursore di Alexander Fleming**

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La scoperta della penicillina è associata al nome di Alexander Fleming, premio Nobel nel 1945 insieme a Florey e Chain. Tuttavia, nella storia ufficiale della scoperta della penicillina, v'è una vicenda sconosciuta che solo recentemente è stata riscoperta dai ricercatori e che permette di riscrivere la storia dell'era antibiotica. La vicenda è quella di un medico molisano, Vincenzo Tiberio (1869-1915), che nel 1895 pubblica sulla rivista "Annali di Igiene Sperimentale" lo studio *Sugli estratti di alcune muffe*, in cui espone i risultati delle ricerche relative alla scoperta del potere battericida delle muffe, ben trent'anni prima di Fleming. La scoperta del medico molisano però rimane confinata in un contesto scientifico molto ristretto e il suo lavoro per una serie di circostanze contingenti sfavorevoli, tra cui il mutare dei suoi progetti di vita, che lo porteranno ad abbandonare la carriera accademica e ad arruolarsi in marina, sarà relegato nell'oblio per parecchi anni, sino al 1947, quando un tenente colonnello, ufficiale medico della marina italiana, Giuseppe Pezzi, ritrova il fascicolo degli "Annali di Igiene Sperimentale" del 1895 con il saggio di Tiberio. Pezzi pubblica nel 1947 un articolo dal titolo *Un italiano precursore degli studi sulla penicillina. Osservazioni e ricerche su alcune muffe e precisamente sul Penicillium (gen. glaucum), sull'Aspergillus (gen. flavescens) e sul Mucor mucedo, fatte dal Dott. Vincenzo Tiberio e pubblicate nel 1895* sulla rivista "Annali di medicina navale e coloniale" e "Pagine di storia della medicina". Da allora si è riaperto, in ambito nazionale e internazionale, l'interesse sul lavoro di Vincenzo Tiberio ed è iniziato un dibattito sulla reale consistenza scientifica del suo lavoro sul potere antibatterico di alcune muffe, incentrato soprattutto o sulla casualità dell'osservazione, oppure sull'impossibilità per le scarse conoscenze scientifiche dell'epoca, di tramutare quelle osservazioni nel risultato che, invece, Fleming, Florey e Chain ottennero 50 anni dopo. Al di là di questo dibattito, quello che si cercherà di dimostrare è che la scoperta di Tiberio poneva già le basi del futuribile di essa, con tutte le speranze e i problemi connessi, nonostante la temperie storica e culturale non fosse ancora tale da rendere possibili le realizzazioni della sua scoperta sia sul terreno pratico, sia su quello del laboratorio. A tal proposito, nella prima parte di questo lavoro si ricostruirà la vicenda biografica di Tiberio al fine di inquadrare il contesto storico-culturale in cui ha operato lo scienziato, per poi esaminare, nella seconda parte, la consapevolezza del medico italiano circa la sua scoperta e per sottolineare gli intenti, i propositi, gli obiettivi alla base del suo lavoro, soffermandosi anche sull'incidenza di alcuni fattori nell'ambito della scoperta, quali il "caso", la "fortuna" e la "sfortuna" nella ricerca scientifica e su un confronto con la scoperta di Fleming. Proprio alla luce di questo confronto, si cercherà di dimostrare come, nonostante il lavoro di Vincenzo Tiberio sia stato penalizzato dal fattore fortuna/caso legato soprattutto alla dimensione temporale, tuttavia, questo non ha inficiato minimamente, alla luce dello sviluppo degli antibiotici e della vaccinoterapia nel ventesimo secolo, l'importanza del lavoro del ricercatore molisano, che ha avuto il merito di essere stato in tale campo colui che ha posto una pietra miliare nella storia della medicina e della biologia.

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## **Una grande scoperta scientifica che non ha cambiato la storia: il caso Tiberio**

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Tra le tante scoperte scientifiche che hanno avuto una ricaduta applicativa in campo medico e che hanno cambiato la vita dell'uomo sulla Terra vi è senz'altro quella degli antibiotici. Con la loro produzione industriale, che ha permesso di salvare in passato e continua a salvare tutt'oggi milioni di vite, si è realizzata una svolta epocale, che ha cambiato la percezione stessa delle malattie infettive ad eziologia batterica. Vi è stato un vero e proprio cambio di paradigma: prima dell'era antibiotica tali malattie venivano percepite come – e molto spesso erano – una inesorabile condanna, dalla quale potersi salvare solo per estrema grazia o fortuna; mentre dall'inserimento in terapia degli antibiotici le medesime malattie sono passate al polo opposto dello spettro di gravità, al punto che oggi quasi ci si meraviglia che possano ancora produrre sofferenza e morte. Una tale evenienza viene percepita come segno di degrado, plausibile in Paesi arretrati, ma non certo nell'Occidente avanzato. Per non parlare della svolta radicale in campo chirurgico, nel quale gli antibiotici hanno consentito sopravvivenze e riprese prima inimmaginabili.

Nella percezione comune la scoperta degli antibiotici risale agli anni Quaranta del XX secolo, coincidendo con la loro utilizzazione in ambito militare al termine della Seconda guerra mondiale. Ma la realtà storica testimonia qualcosa di diverso: ci parla di una prima scoperta scientifica, pur di potenziale portata rivoluzionaria, che non ebbe ricaduta pratica alcuna; ci parla di uno scienziato italiano che individuò il potere battericida di alcune muffe già alla fine dell'Ottocento.

Vincenzo Tiberio, nato a Sepino in Molise nel 1869 e cresciuto professionalmente a Napoli, nel 1893, quando era Assistente di laboratorio presso l'Istituto di Igiene della Regia Università di Napoli, osservò come l'acqua del pozzo della casa della zia presso cui abitava ad Arzano, ripulita dalla patina verdognola che si creava all'interfaccia acqua-aria, causava dissenteria in quanti la bevessero. Da lì partì la sua attività di ricerca, che completò l'intero ciclo sperimentale: dall'osservazione alla verifica dell'ipotesi iniziale, alla preparazione della sostanza antibiotica, alla dimostrazione del suo effetto in vitro, alla documentazione della sua efficacia in vivo, alla proposta di una ipotesi di meccanismo di azione mediante lo studio delle modificazioni dell'assetto leucocitario. Tiberio valutò anche le dosi efficaci ed i tempi di durata dell'efficacia antibiotica dei suoi estratti.

Una scoperta tanto sensazionale da passare, di fatto, in sordina negli ambienti accademici dell'epoca! Una scoperta che, se avesse trovato il giusto riscontro già nel 1895 (anno di pubblicazione di "Sugli estratti di alcune muffe"), avrebbe potuto salvare la vita, ad esempio, di migliaia di soldati, che nei due conflitti mondiali morirono per quella che a noi oggi appare come una 'banale' infezione. Ma cosa capitò allora al lavoro di Vincenzo Tiberio? Perché non fu preso in considerazione? Perché la scoperta non si tramutò in trattamento e cura? Perché la sostanza prodotta in laboratorio non divenne un farmaco prodotto su scala industriale?

La società dell'epoca in realtà non si rese conto della portata storica di quella scoperta, così come non colse quella analoga dell'anno successivo da parte del francese Ernest Duchesne, così come non percepì come risolutiva neppure quella di Fleming nel 1929. Semplicemente non era pronta: non si erano ancora sviluppate le adeguate condizioni ambientali, culturali e soprattutto tecnologiche atte a far sì che quella scoperta scientifica diventasse applicabile come trattamento. Si dovettero attendere altri dieci anni ed alcune cruciali modifiche, perché questo salto definitivo fosse fatto.

In realtà, probabilmente non solo il dato anagrafico dell'esistenza in vita di Fleming a 64 anni nel 1945 di contro alla morte di Tiberio a 45 anni nel 1915 e di Duchesne a 38 anni nel 1912, hanno fatto sì che il primo venisse accomunato a Chain e Florey nel riconoscimento della scoperta della penicillina da parte dell'Accademia di Stoccolma, ma tale dato è talmente incontrovertibile da far cadere qualunque altra considerazione o speculazione di tipo storico-politico.

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## TIMETABLE FRIDAY, JULY 14

9,00- 9,45	Plenary lecture: Maria Conforti			p. 73
10,00- 11,30	<b>WHEN WORLDS COLLIDE: THE VARYING FATES OF 20<sup>TH</sup> CENTURY INTERDISCIPLINARY PROJECTS IN THE PSYCHOLOGICAL DISCIPLINES I</b> <b>CHAIR: Sonu Shamdasani</b> Alex Woodcock Tommaso Priviero Dangwei Zhou  <p style="text-align: right;">p. 73</p>	<b>SCIENZE DELL'UOMO E SCIENZE DELLA NATURA IN ETÀ MODERNA</b> [HUMAN AND NATURAL SCIENCES IN THE EARLY MODERN AGE] <b>CHAIR: Marco Beretta</b> Stefano Daniele Manuel De Carli Maria Chironna  <p style="text-align: right;">p. 81</p>	<b>STUDYING HUMAN BEING: PHYSIOGNOMY, GRAPHOLOGY AND TEST</b> <b>CHAIR: Annette Mülberger</b> David Horn Oscar Montero Pich Simone Guidi  <p style="text-align: right;">p. 85</p>	
11,30- 12,00	COFFEE			
12,00- 13,30	<b>WHEN WORLDS COLLIDE (II)</b> <b>CHAIR: Sonu Shamdasani</b> Dee McQuillan Arthur Eaton <i>Discussion</i>  <p style="text-align: right;">p. 78</p>	<b>INDUSTRIAL PSYCHOLOGY</b> <b>CHAIR: Dennis Bryson</b> Maarten Derksen Zsuzsanna Vajda Mariagrazia Proietto  <p style="text-align: right;">p. 89</p>	<b>SCIENZA, ANTROPOLOGIA E COMUNICAZIONE [SCIENCE, ANTHROPOLOGY AND COMMUNICATION]</b> <b>CHAIR: Gabriella Sava</b> Vittorio Marchis Liberia Paola Arena Eleonora Loiodice  <p style="text-align: right;">p. 93</p>	
13,30- 15,00	LUNCH			
15,30- 17,30	<b>BEYOND BOUNDARIES: CASE STUDIES</b> <b>CHAIR: René van Hezewijk</b> Ruud Abma Jannes Eshuis Inbar Graiver  <p style="text-align: right;">p. 97</p>	<b>SCIENZE FISICHE E MATEMATICHE NEL NOVECENTO [PHYSICAL AND MATHEMATICAL SCIENCES DURING THE 20<sup>TH</sup> CENTURY]</b> <b>CHAIR: Augusto Garuccio</b> Giambattista Formica Francesco Guerra, Matteo Leone, Nadia Robotti Luigi Binanti Anna Maria Macchia  <p style="text-align: right;">p. 101</p>		
17,30- 18,00	Conclusion: Augusto Garuccio (Director Seminario di Storia della Scienza), Annette Mülberger (President ESHHS), Raffaella Simili (President SISS)			
18,00- 18,30	FARWELL REFRESHMENT			
18,30- 20,00	SIGHTSEEING WALKING TOUR OF BARI (optional)			

## PLENARY LECTURE

### Women's bodies and surgery in the late 19th century: an uneasy association

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The late 19th century was a golden age for surgeons and surgery. Listerian techniques and anesthesia enabled practitioners to perform interventions that had long been impossible. In the previous centuries, surgeons had had a close, if awkward, relationship with female bodies. As manual practitioners, their activity and knowledge had long been stereotyped as coarse and inferior to those of the learned physicians. However, despite the stereotype, surgeons and other professional figures, as men-midwives, had been close to women in crucial moments of their bodily life, e.g. in assisting them with difficult births and other pathologies. Taking into account Italian and other European cases, my contribution will deal with the rearticulation of the proximity and distance between surgical practice and women's bodies in the age that witnessed the triumph of the 'learned and skilled' surgeon.

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## WHEN WORLDS COLLIDE: THE VARYING FATES OF 20<sup>TH</sup> CENTURY INTERDISCIPLINARY PROJECTS IN THE PSYCHOLOGICAL DISCIPLINES I

### Panel Abstract

Tommaso Priviero, Dangwei Zhou, Dee McQuillan, Arthur Eaton, Alex Woodcock  
& Sonu Shamdasani

The proposed session will be on "interdisciplinary collisions". Each paper will discuss a different 20<sup>th</sup> century example of how the psychological disciplines came into contact with a variety of other intellectual projects. These interdisciplinary collisions were often experimental and exciting, though also productive of sometimes unexpected or problematic results. They

affected – sometimes significantly and permanently – the historical trajectories of the psychological disciplines in question, as well as those of the intended partner disciplines. A historical exploration of what occurred in these intellectual fender-benders will help to illuminate some crucial turning points in 20<sup>th</sup> century intellectual history; both within and beyond the history of the psychological disciplines.

With collision as the uniting theme, the session will cover a broad spectrum of disciplines, projects, theories, and theorists. These will include: C.G. Jung's literary appropriations of Dante's *Divina Commedia* as a guiding arc for his own analytical psychological journey; Richard Willhelm's forgotten attempt at a psychological exploration of Chinese economics; James Strachey's collisions with the London psychoanalytic community in the period 1939-1945; Erik H. Erikson and Bruce Mazlish's contributions in the post-World War II USA towards uniting psychoanalysis and history under a new discipline of 'psycho-history'; and Kenneth Waltz's field-altering theoretical combination of international politics and cybernetic psychiatry. The panel's varied topics will span disciplines from politics to literature, psychiatry to economics, and Western sinology to robotics organised around one theme. The papers will thus aim to provide new historical and thematic insight into the origins of a number of academic fields and scholarly disciplines.

The papers cover a panoply of emotive and dramatic (hi)stories ranging across themes of ambition and frustration, desire and loss, invention and innovation, and conflict and disaster. One of the key challenges for writing intellectual history is finding the right balance between the trajectory of ethereal ideas and their concrete, 'real-world' manifestations. With this in mind, the papers interweave human, socio-political or socio-cultural, and intellectual-historical narratives to positive effect.

Finally, and perhaps most importantly, the panel will encourage discussion and debate regarding practices and intellectual history. It will explore questions around how tracing, exploring, and explaining interdisciplinary collisions is arguably at the very heart of an intellectual historian's work. Foregrounding this reflexive focus on scholarly practice will transcend specific disciplinary interests. Beyond simply presenting our own work, then, we hope the panel will foment fertile and productive discussion regarding the procedures of intellectual history more generally.

### **Kenneth Waltz: international politics meets robot psychology**

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This paper will assess the intellectual trajectory of Kenneth Waltz in the period 1959-1979. The paper will argue that Waltz's oeuvre is best understood via connection to how the human mind was being conceptualised and explored in the mid-twentieth century.

Over the course of these 20 years Waltz published three of his most significant single-author books. The third of these was *Theory of International Politics* (1979), a text still definitive for the field of academic International Relations in the present day. However, Waltz's IR magnum opus was built up over the course of twenty years via a gradual fine-tuning of his scholarly approach. Where Waltz began in 1959 with wide-ranging criticism of how international politics had been assessed by his peers and intellectual forebears, by 1979 Waltz



had formulated a strident and detailed proposal for how the field should direct its investigations into the dynamics of the international world.

The presentation will open with discussion of Waltz's first major book from this period, *Man, the State, and War* (1959). This text, developed intermittently over five years from Waltz's PhD thesis (1954), famously introduced the notion of three prevailing 'images' being applied within the study of international politics pre-1959. It was contended that 'first,' 'second,' and 'third' image approaches to politics were theories that focused, respectively, on 'human nature,' 'domestic politics,' or 'the international system' as the significant factor requiring analysis. The paper will explore how Waltz's eventual settling upon a third image approach was connected to a number of social scientific theories prevalent in the 1950s: American pragmatism; theories of nationalism; anthropology; economics; and sociology. Via an intelligent handling of these different threads, Waltz was able to rehabilitate commonplace psychological theory (which was seemingly discarded in his criticisms of 'first image' approaches) via his conceptualisation of a third image approach based upon the idea of 'nation' as a coherent ontological unit.

The paper will then explore a second significant publication, *Foreign Policy and Democratic Politics*. Waltz's legacy in International Relations scholarship is one stressing the importance of treating states as 'like units' or 'black boxes,' with analytical focus on the 'international level' as opposed to the 'domestic level'. *Foreign Policy and Democratic Politics* at first glance, then, appeared to be somewhat 'anti-Waltzian' given its concern with domestic political factors. However, this paper will contend that *Foreign Policy and Democratic Politics* was in general coherence with the 'Waltzian' view of International Politics insofar as it never broke with Waltz's sense of the nation as a coherent psychological entity as established in *Man, the State, and War*. In this regard, the discussion will explore *Foreign Policy and Democratic Politics* as an exercise in 'third-image depth psychology.'

The paper will conclude with a discussion of *Theory of International Politics*. It will explore how *Theory of International Politics* consolidated the discussions of *Man, the State, and War* and *Foreign Policy and Democratic Politics* into the most scientifically rigorous and definitive of the three texts. This was achieved via Waltz's appeal to a strictly adhered to systems approach for studying International Politics. More significantly, Waltz's application of cybernetic theory, itself emerging from psychiatric and psychological considerations, was a way of upgrading the earlier developed third image framework into a more thorough, 'scientific' language.

The paper will end upon two main concluding ideas, one specific to Waltz and one more general: 1) Waltz's intellectual trajectory was contingent upon core ideas and trends that shaped the social sciences in the post-WWII world. 2) Unpicking the psychological underpinnings of different International Relations theories helps to better understand them, both historically and for the purposes of comparative debate.

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## **Hermeneutics of Hell, ‘neither science nor art, neither literature nor history of facts’:**

### **C. G. Jung’s own initiation to vision and his encounter with Dante’s *Commedia***

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A few peculiar works of art, according to Jung, deserve a peculiar attention for the reason that they incorporate under the aesthetic material a substantial intimacy with hermetical layers of psychic experience. By chiefly addressing them as “visionary works” (*Psychology and Literature*, 1930/1950) – books for “All and None”, recalling Nietzsche’s glorious subheading to *Thus Spoke Zarathustra* – Jung distinguishes between a “psychological” and a “visionary” mode of imaginative creation. Whereas the former is still characterised by the limits of the intelligible and familiar as deriving mainly from the experiences of man’s conscious life, the latter designation appears on the contrary to be drawn mostly from a “primordial experience which surpasses man’s understanding and to which in his weakness he may easily succumb” (CW15§141). It is the nature of visionary journeys into the “mundus imaginalis” (Corbin), transformative experiences such as those epitomised by Dante’s *Commedia* and Nietzsche’s *Zarathustra*, but also those described by ecstatic or meditative processes as to which Jung offers exceptional critical insights, such as in the *Psychology of the Kundalini Yoga* or in the introduction to the *Tibetan Book of the Dead*.

It is also the case of *The Red Book*, Jung’s own “most difficult experiment”, where the attempt to reconcile scientific and religious drives with a profound psychological amplification pours forth into a meta-language of fire and light, a Blakean energy of imagining consciousness. Whether being characterised from a psychiatric (a stunning result of a ‘creative illness’?), aesthetic (a dramatic elaboration of a descent into the underworld of the psyche?) or philosophical (a quest on the meaning and nature of the sacred?) angle, Jung’s imaginative material encompasses a synthetic language that anticipates all of these: the practising energy of a meditative transformation.

On the one hand, this paper will introduce some comparative aspects of Jung’s critical elaboration regarding the meaning and estate of the “visionary works”, in order to understand how especially by way of this perspective Jung provides some of his most significant insights as to the interface between psychology, literature and symbolism. Along these lines, this paper will also intend to define the natural outcome of the collision of these angles towards Jung’s interest and connection to the tradition of Western esotericism.

On the other hand, this paper will take into account as an illustrative key a unique example to examine some essential characteristics of this interface, namely Jung’s encounter

with Dante and the Commedia, which not only does prompt Jung's own experience of a visionary journey into the underworld of the psyche but opens up Jung's confrontation with a critical context, that of the symbolist interpretation of the Commedia, that aptly epitomised the world collisions naturally consistent with the spirit of European symbolism, where the subtle and experimental contact between psychology, literature and esotericism became a representation as vigorous as challenging of the epistemic crisis of the modern subject.

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### **The forgotten book of Richard Wilhelm: Chinese economic psychology**

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It is little known that after his landmark translation of the *I Ching* into German, one of the subjects that the German Sinologist Richard Wilhelm turned to was economic psychology. This paper will give a description and discussion of his book *Chinese Economic Psychology*, which was published in 1930. Shortly after this book, Wilhelm passed away in 2<sup>nd</sup> March 1930 in Stuttgart. This paper will argue that Wilhelm's understanding of Chinese culture was not only

confined in the translation and interpretation of the scriptures, but also penetrated the life and psychology of Chinese people.

Wilhelm's translations of Chinese classics into European languages, especially his translation of *I Ching* that was retranslated into English from German, have had a lasting impact on the western understanding of Chinese culture. In addition to his translation and interpretation of Chinese philosophy and history, Wilhelm also discussed some social problems in China. Previous studies tended to emphasize Wilhelm's sinological work, but his ideas of the Chinese society were neglected to a large extent. In this book, Wilhelm went beyond the traditional "sinology" to discuss a multidisciplinary topic, economic psychology. In this book, Wilhelm did not intend to construct an economic model or verify a ready-made theory, nor submitted to any ideology. He simply gave a general description of the social economic life of Chinese people. This paper will argue Wilhelm's main aim is to help European people understand Chinese history and culture from another dimension, which is also a part of his interpretation of Chinese culture.

The presentation will firstly discuss how Wilhelm comprehend economic psychology in this book. Wilhelm illustrated many special elements that shaped social and political behaviours. Secondly, the paper will explore Wilhelm's attempts to analyse economic psychology. He emphasized the role of culture in the economic events. Then, this paper will analyse how Wilhelm connects Chinese culture with his arguments. Lastly, this presentation will demonstrate how Wilhelm discussed the concept of economy in this book and why he chose economic psychology to illustrate his understanding of Chinese culture and history.

This paper will conclude the significance of this book in Wilhelm's introduction of Chinese history and culture to Europe and if it is helpful for people to understand modern China.

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#### **A singular view on psychoanalysis as a science from James Strachey, London, 1939-45**

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This paper will discuss James Strachey's collision with the London psychoanalytic community in the 1930s as resulting from Strachey's unique perspective on both psychoanalysis and contemporary Philosophy of Science. As psychoanalysis grew in terms both of the numbers of those practising it and the scope and variety of its theories, the idea that it could be classified

as a science was retained even though, as on other subjects, Freud had written conflicting statements about this. In London from the late 1930s much of the scientific activity consisted of generating or opposing new hypotheses based upon clinical observations, with little recorded engagement with the problems of proof. James Strachey, who was a senior analyst near the centre of British psychoanalysis, was an exception to this strong tendency because he left evidence that he took a different approach which was based upon his own private study of the history of Freud's method and some acquaintance with the Philosophy and History of Science. Part of his line of thought was that the science resided in Freud's discovery of psychoanalytic technique, rather than the complex psychoanalytic theories (metapsychology) that were proliferating during the period. He argued that his colleagues in the British Psycho-Analytical Society were caught up in speculations that failed to ask the important preliminary question concerning the kind of truths that might be involved in psychoanalysis. Strachey also raised the possibility of failures of reference.

In terms of disciplinary clashes, incompatibilities and drifting, it is possible to claim that Strachey was prescient in comparing the difficulties that were occurring in the regular Scientific Meetings of his psychoanalytic Society with the incidents of superseded theories that are recorded by the History of Science. And his call for his colleagues to attempt some scepticism could indicate that during the Second World War he had doubts about psychoanalysis ever being able to qualify as a branch of physical, medical science. More contestably, a case will be made that although Strachey considered himself a practical therapist with an allergy to metapsychology and metaphysics, he found himself arguing that a philosophical approach might best be able to answer the problem of fitting or reconciling psychoanalytic enquiries with the hard sciences of the time.

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### **Collision or collaboration? Questions on the failures of Psycho(-)History**

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Psychoanalyst Erik H. Erikson was convinced that the hyphen in the word 'psycho-history' was somehow important. To him, it signified that psychohistory – a young interdiscipline modeled after his work – was merely a provisional union between two discourses: on the one hand history, on the other hand psychoanalysis.

For Erikson, psychohistory was merely a ‘compost heap of today’s interdisciplinary efforts, which may help to fertilize new fields, and to produce future flowers of new methodological clarity’. But his younger colleagues, who were inspired by their leader’s fusion of psychoanalysis and history, unabashedly referred to themselves as ‘psychohistorians’. They were quick to drop the hyphen. For them it was exactly the semblance of unity in the unhyphenated word (‘psychohistory’) that held hope for the integration, or fusion, of these two disciplines. Bruce Mazlish, one of the earliest proponents of psychohistory as a semi-independent discipline, wrote in 1960: ‘psychohistory is not *merely* the application of psychoanalysis to history but a true fusion of the two, creating a new vision’.

In this paper I will discuss some of the hopes attached to the interdiscipline ‘psychohistory’. Some of its practitioners were convinced that with the dawn of ego-psychology and the work of Erikson a new, Freudian historiography had been born. Others believed that the two discourses could successfully borrow from each other’s methodologies. Others again believed that psychohistory would grow up to be a science that would, at some point, make the study of traditional history obsolete.

I will give a brief overview of the history of psychohistory; show what the movement’s aims were; discuss why proponents of the movement failed to reach those aims; speak about the legacy of psychohistory. We will see that the collision of the two discourses – psychoanalysis and history – in the project psychohistory led to specific problems and possibilities. Some problems were inherent to the nature of the two disciplines involved, some specific to the characters and causes of the movement itself. As psychohistorian Robert J. Lifton put it: ‘History and psychology each has something of an impulse to eliminate the other’. We will see that in the psychohistorical movement, too, there were impulses towards elimination at play. But we will also discuss the successes of this interdiscipline – the successful interplay between psychoanalytic and historical thought.

Is psychohistory dead? Was psychohistory a success? Was it doomed to fail? Did it reach its full potential? Does it have a role to play inside or outside of academia in the future? These are some of the questions that will be discussed in this paper, as well as the conceptual difficulties in the construction of a hybrid (sometimes hyphenated) discipline.

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## **HUMAN AND NATURAL SCIENCES IN THE EARLY MODERN AGE [SCIENZE DELL'UOMO E SCIENZE DELLA NATURA IN ETÀ MODERNA]**

### **Indagine su un medico al di sopra di ogni sospetto: il caso Celli-Bovio Medicina, editoria e legalità nella Venezia del '500**

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Dietro ad un intrigo spesso è celato un libro misterioso. Tra gli esempi di fantasia, celebre è lo scritto «galeotto» cantato da Dante che corona l'adulterio di Francesca, o il perduto libro secondo della Poetica di Aristotele che induce il monaco cieco Jorge a macchiarsi di efferati omicidi ne *Il nome della rosa*. Allo stesso modo, sembra sia un libro non meno oscuro a decretare l'atto di nascita, o se non altro a segnare un momento importante, della diatriba insorta tra medici galenici e neoterici nella Venezia del '500.

Nel 1584 a Venezia viene data alle stampe la Risposta dell'Eccellente Dottor Claudio Gelli, ad un certo libro contra medici Rationali. L'opera contro cui la Risposta si scaglia è il *Flagello* (Venezia 1583) del medico veronese Tommaso Zefiriele Bovio. In esso, solo un anno prima, Bovio aveva mosso un violento attacco contro i Medici Ufficiali di scuola galenica «carnefici peggio di mille assassini da strada» accusati con le loro cure di «levar l'appetito, il gusto, e il sonno agli infermi [...] dei cui cento ne muoiono novanta, e li cui dieci restano perpetuamente infetti e ammorbati».

Dal canto suo Gelli, spronato dal Collegio dei Medici di Venezia, rispondeva a Bovio accusandolo di essere un sostenitore dell'astrologia giudiziaria e sostenendo che l'esercizio della sua medicina fosse legato a pratiche demoniache. Il giovane medico veneziano, nondimeno, si scagliava contro i preparati che Bovio reputava dotati di poteri sovranaturali facendo notare come le ricette dello sperimentatore veronese non fossero altro che volgari imitazioni di quelle paracelsiane e cagione di «gran danni a corpi umani». L'identità di Gelli è stata per lungo tempo sconosciuta. Una prima ricerca bibliografica, infatti, attribuisce all'oscuro autore solo una seconda Risposta datata Venezia 1584 (lo stesso anno dell'opera contra Bovio) e avente come obiettivo polemico le paterne riprensioni dell'eccellente signor Annibal Raimondo Veronese, indirizzate a signori medici rationali. Ancora nel *Melampigo* (opera seconda del veronese – Venezia 1595) Bovio si interroga con caustica ironia, ma non senza incertezze, sulle qualità professionali e sulla persona stessa del Gelli, per smascherarlo solo nella sua ultima opera, il *Flagello* (Venezia 1601). Nonostante il personaggio nascosto dietro lo pseudonimo del giovane medico veneziano goda, ancora oggi, di grande prestigio presso gli storici della scienza, riteniamo che la querelle in esame non abbia ricevuto una trattazione adeguata trovando spazio, perlopiù, nelle note a margine di studi di carattere generale. Solo a partire dal 2003 il caso ha riscosso maggiori attenzioni nel contributo di M. Gadebush Bondio, *Paracelsismus, Astrologie und ärztliches Ethos in den Streitschriften von Tommaso Bovio (1521-1609)*.

Quel che ci proponiamo è riaprire l'inchiesta forti di nuove prove. Ci riferiamo al ritrovamento degli atti di due processi intentati contro Bovio e dottori di medicina dalla Magnifica città di Verona per esecuzione dei medici matricolati i quali permetteranno di gettare nuova luce sui rapporti tra il Veronese e i Medici Razionali. Non ultimo, una ricostruzione analitica degli ambienti e dei contesti a partire da materiale d'archivio inedito (i Registri delle

approvazioni Medicorum, chirurgorum, et aromathariorum di Verona e Venezia, i documenti appartenenti ai Collegia medicorum delle stesse città o i divieti censori e le approvazioni emesse dal Tribunale della Bestemmia, strumento di controllo dell'editoria "eretica" a Venezia) consentirà di inquadrare in maniera più ampia e precisa la diatriba tra Medicina Ufficiale e nuova terapia spagirica.

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### **Le dissertazioni sul tarantismo in Olanda tra XVII e XVIII secolo: Wolferd Senguerd**

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Con il mio intervento intendo presentare i primi risultati della mia ricerca di dottorato intorno a un fenomeno poco noto: la diffusione di alcune dissertazioni sul tarantismo nel contesto olandese, tra XVII e XVIII secolo, ad opera di Wolferd Senguerd (1646-1724), professore di Filosofia naturale all'Università di Leida. L'interesse per il tarantismo costituisce un aspetto centrale della parabola intellettuale di Senguerd. Egli autore di ben tre diverse opere sul tema: la giovanile *Disputatio philosophica inauguralis de tarantula* (Leida, 1667); il



*Tractatus physicus de tarantula* (Leida, 1668); e infine la tarda *Disquisitio de tarantula* (Rotterdam, 1715).

I tre testi di Senguerd arricchiscono e complicano il panorama degli esordi della letteratura scientifica su questi temi. Essi assumono un certo rilievo da un punto di vista bibliografico in quanto si collocano tra le primissime dissertazioni monografiche interamente consacrate a questo tema.

La *Disputatio* costituisce la tesi di laurea in filosofia che il giovane Senguerd discute all'Università di Leida il 24 dicembre 1667. Ben presto, egli si affretta a riorganizzare il materiale della dissertazione per dare vita a un nuovo libro, il *Tractatus physicus de tarantula*, stampato l'anno seguente, sempre a Leida, apud Gaasbeeckios. L'opera riscuote, sin da subito, un certo successo, ottenendo una recensione positiva nel IV volume (1669) di *Philosophical Transactions*, la rivista della Royal Society, nonché una traduzione danese condotta dallo storico ed erudito Peder Terpager e stampata a Copenaghen nel 1702.

Nel 1715 esce a Rotterdam, apud Bernardum Bos, l'ultima opera di Senguerd, *Rationis atque experientia connubium*, dedicata – secondo quanto promesso dal titolo – alla narrazione di esperimenti fisici, meccanici, idrostatici, barometrici e termometrici, nonché alla descrizione del metodo con cui essi si istituiscono. A chiusura di quest'opera si trova annessa la *Disquisitio de tarantula*.

Nei tre testi, Senguerd si interessa al tarantismo non da un punto di vista medico, ma in qualità di Fisico: si interroga sulle caratteristiche dell'animale, sul suo habitat, sulle proprietà del suo veleno, sugli effetti che esso induce sui corpi e sui poteri della musica, quale rimedio al morbo. Particolare attenzione è riservata allo studio della relazione tra il morso del ragno e gli effetti di alterazione delle facoltà dell'anima, precisamente della *phantasia*. *Historia naturalis*, musica e fisica sono associate nella spiegazione di un fenomeno che, altrimenti, resterebbe insoluto.

La ricerca sulle tre opere chiama in causa problemi di filologia, storia e scienza. Infatti, lo studio delle relazioni sussistenti tra esse – quindi degli interventi operati dallo stesso autore – risulta particolarmente utile non solo sul piano ecdotico ma anche su quello contenutistico, poiché fornisce molteplici prospettive sul contesto della comunicazione scientifica, sul panorama editoriale olandese, nonché su alcuni significativi dibattiti svoltisi nell'arco di tempo che separa la redazione delle differenti versioni, coincidente con un cinquantennio di storia scientifica europea.

I temi affrontati in questo breve intervento non hanno pretesa di esaustività, poiché l'edizione critica non è conclusa e la ricerca di fonti e testimoni è tutt'ora in corso. Pertanto, dopo aver offerto una ricostruzione filologica dei rapporti sussistenti tra le tre dissertazioni, intendo soffermarmi sulle fonti di Senguerd e sull'utilizzo che ne fa al fine di produrre un'interpretazione originale del tarantismo.

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## **Un'unica storia per la medicina: medici, omeopati e ciarlatani**

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La proposta di relazione, per la sezione “Studi comparativi ed egemonie culturali nella storia della scienza”, si basa su un confronto tra gli studi europei sul ruolo delle medicine eterodosse nella storia della medicina e la storiografia italiana che sembra non avere recepito il dibattito sul tema avviato dai primi anni '80 del Novecento.

Attingendo ad una ricerca su fonti primarie condotta dalla scrivente sulla storia dell'omeopatia nel Regno delle Due Sicilie dal 1822 al 1860, durante i quattro anni di dottorato presso l'Università di Bari e pubblicata dall'editore Franco Angeli, l'intervento mostra come un'egemonia culturale abbia condizionato il corso della storiografia italiana per più di un trentennio.

Al giorno d'oggi gli studiosi di tutte le specie concordano – in misura maggiore o minore – sul dato che le frontiere tra medicina ortodossa e medicina eterodossa sono state flessibili; anzi, la stessa distinzione tra le due è frutto di una interpretazione.[...] Se però è generalmente accettato che medicina ortodossa e alternativa hanno interagito dialetticamente all'interno dell'intero complesso sociale, è curioso che ognuna continui ad avere la sua propria storia.

Con queste parole si apre l'introduzione a *Medical fringe & medical orthodoxy 1750 – 1850*, a cura di William F. Bynum e Roy Porter del 1987 che, manifesto di un nuovo corso storiografico, mette in discussione la separazione tra la storia della medicina regolare o ortodossa e la storia della medicina “irregolare”, dando per scontato che gli storici della medicina riconoscano che nella realtà le due pratiche mediche si siano sviluppate sullo stesso terreno e con confini flessibili.

L'anno successivo, nel 1988, esce a cura di Roger Cooter *Studies in the history of alternative medicine* che, con un saggio di Porter, segna una continuità con la raccolta uscita l'anno precedente.

Tra il 1998 e il 2002 sono pubblicati dalla European Association for the History of Medicine and Health (EAHMH), *Culture, knowledge and healing, Historical aspects of unconventional medicine, Patients in the History of Homoeopathy*. Studi corali che affinano sul campo strumenti di indagine elaborati dieci anni prima mettendone a punto anche di nuovi.

Nell'arco di quindici anni una comunità di studiosi di prestigiosi istituti di ricerca – universitari e non – di storia della medicina come il Wellcome Institute di Londra e la Robert

Bosch Stiftung di Stoccarda, recupera alla storia della medicina documenti inediti redigendo originali ricostruzioni storiche tra le quali molte riguardano l'omeopatia.

Diverso sembra il corso degli studi effettuati in Italia, ove medicina ufficiale e medicine alternative – omeopatia compresa – continuano ad avere storie diverse riproducendo il dualismo dei “saints and sinners”, e riconfermando la separazione tra medici ortodossi da una parte e medici eretici dall'altra.

L'articolo di Cooter *Medicina e cultura alternativa* pubblicato su *Prometeo* nel 1983, che mette a fuoco l'approccio metodologico seguito dagli studi del 1988, non sembra segnare breccia tra gli storici della medicina italiani. Contrariamente a quanto sosteneva Porter, sembra che gli storici della medicina abbiano «continuato a sostenere che la medicina regolare e le medicine irregolari abbiano avuto storie autonome, sviluppandosi come specie completamente distinte». Inoltre, nel solco di una tendenza affermata nel corso dell'ultimo secolo, l'omeopatia viene progressivamente espunta dalla storia della medicina e dalle relative microstorie.

In Italia la medicina regolare e le medicine irregolari hanno continuato ad avere storie completamente distinte.

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## **STUDYING HUMAN BEINGS: PHYSIOGNOMY, GRAPHOLOGY AND TEST**

### **Graphologics: writing, character, and pathology in Jules Crépieux-Jamin and Cesare Lombroso**

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European human sciences in the late nineteenth century – from physiology to psychology, anthropology to criminology – were fascinated with practices of *inscription*: graphical instruments (cardiographs, sphygmographs, plethysmographs) promised to make permanent visual records of transient physical and emotional states; psychological studies of “automatic

writing” promised to uncover the architecture of consciousness and to trace the dissociation of personalities; and graphological analyses promised to reveal the underlying natures of individuals and groups. Whether generated by the hand or other parts of the body (the heart, the circulatory system, the brain), writing was imagined to “give the person away”. Even when it was consciously produced, writing retained the quality of the automatic, the characteristic, and the diagnostic.

Against the background of this transdisciplinary and transnational focus on writing, this essay compares graphological monographs by two authors: Jules Crépieux-Jamin (1859-1940) and Cesar Lombroso (1835-1909). Crépieux-Jamin, a Rouen dentist who collected and studied samples of handwriting in his spare time, sought to put graphology on a scientific footing by systematically linking handwriting, understood as a kind of *gesture*, with character. Building on the work on Jean-Hippolyte Michon (1806-1881), a French priest and archaeologist, Crépieux-Jamin published *L’écriture et le caractère* in 1888 – a work that proposed to classify graphological signs – from the slope of a signature to the dotting of its – and to read them as expressions of the personalities of individuals. Lombroso, a physician who founded the “positive school” of criminology, published *La grafologia* in 1895, turning to handwriting late in a career devoted to uncovering anatomical and physiological signs of criminal dangerousness. If for Crépieux-Jamin handwriting was like gesture in miniature, for Lombroso it was like the tracings made by graphical instruments in the laboratory: an index of a physiological or psychological *capacity*, and thus potentially of an underlying pathology and a social threat.

The two books have much in common – *so* much in common that Lombroso was accused by Crépieux-Jamin of having plagiarized his book (Crépieux-Jamin would in fact win a judgment of 2,500 francs after a trial in Rouen in 1895). But despite the considerable overlap of text and images, in many ways the authors’ projects diverge, and call upon writing to do different kinds of diagnostic work in particular disciplinary and national contexts. This is especially the case for the writing produced by the sick, the mad, and the criminally dangerous. For Crépieux-Jamin, context modified the expression of character; somatic and mental illness might therefore alter the individual’s characteristic mark-making – the line of writing descending, for example, when a subject was “discouraged,” or the handwriting showing signs of “disturbance” when the mind was “disordered”. For Lombroso, the handwriting of the mad and the criminal pointed not to a contingent context, but to an essential and atavistic nature: the handwriting of criminals mirrored that of children, “savages”, and non-alphabetic cultures, signaling a failure to evolve that threatened the social order.

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### **Implementing and adapting of Woodworth's offenders test in Barcelona (1930)**

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The catalan psychiatrist Joaquim Fuster (1901-1985), supervised by his counterpart Emilio Mira (1896-1964), used the Woodworth test with usual offenders and non-usual offenders in the Model Prison Barcelona in the early 1930s. The purpose of the test was to draw a line between normal and abnormal delinquents, and then measure the morality of the offender. Thus, of a sample of 273 prisoners, they ruled that more than half of the inmates, 179, had a psychopathic personality. But the catalan psychiatrist not only collected information from the Woodworth questionnaire that indicated an antisocial pathology. It was also intended to point out certain sexual practices and behaviors out of normality to offenders classified as abnormal (never falling in love with a woman, having many sexual dreams ...). Thus, the conclusions that Fuster and Mira extracted in this and other tests, served to build and relate certain sexual behaviors to the typology of the offender.

The Woodworth test used by Fuster was designed by Robert S. Woodworth in 1917 to identify individuals with difficulties in adjusting to the demands of military life. However, by 1930 the test had already been used both to study temperamental and emotional differences in children as well as in delinquents. The questionnaire, a list of 114 questions that had to be answered by the offender in a concise manner, affirming or denying, had a correct or incorrect answer: "considered from the point of view of the normal subject" (Fuster, 1930). On the other hand, it is interesting to note that in 1928 there were already some studies indicating that psychoneurotics could not be reliably distinguished (Garrett And Schneck, 1928). Fuster, however, did not point out this fact in the presentation of the results.

In this investigation, we will try to deep about why Fuster and Mira used this test, which relationship and coincidence they had with Woodworth and how they adapted the test to the circumstances and context in which they were.

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## “L’art de connoistre les hommes”. Marin Cureau de La Chambre’s physiognomy

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Before the ‘etnologic’ turn given by Johann Kaspar Lavater to the discipline in the 18th Century, the French *physicien* Marin Cureau de La Chambre (1594-1669) has been considered one of the most prominent writers in the field of european physiognomy. First doctor of Louis XIV, a friend of Descartes, Campanella (Scribano 2016; Guidi 2016) and Fermat (Guidi 2017) as well as founder of the French *Académie des sciences*, Cureau is nowadays known especially for his debate with Pierre Chanet on animals’ intelligence (Wild 2008; Scribano 2010; Gensini 2015; Guidi 2015). Cureau’s *Les caracteres des passions* and especially his masterpiece *L’art de connoistre les hommes* has been widely known in Europe and translated in Italian, Spanish, English and German until the 18th century. In this paper we would like to deal with Cureau’s physiognomy in *L’art des connoistre les hommes* (1659-69), focusing especially on the following aspects: 1) Cureau’s theory of spirits, which he directly recovers from Renaissance pneumatology (Fernel, Telesio, Ficino, Campanella) trying, yet, to provide a physical justification of it (Guidi 2016). Starting from his *Nouvelles pensées* Cureau introduces a ‘hylomorphic’ explanation of spirits (based on rarefaction), as well as of their capability to lead through the whole body feed, blood and “les mouvements de l’âme”; 2) Cureau’s theory of sexual differentiation, based on temperaments; 3) La Chambre’s theory of inclination (“une disposition profondément enracinée dans l’appetit, qui le fait pancher vers certains objets qui luy sont agreables”), related to his ‘active’ understandig of physical image and memory; 4) Cureau’s natural semiotics, its connection with rhetoric, syllogistic logic, interpretation and with the “four rules” of physiognomics (a. same characters entail same passions; b. animal resemblance implies animal inclinations; c. similarity with specific ethnicities entails their inclinations; d. similitarity with the opposite sex entails specific gender qualities). 5) A final part of the intervention will be dedicated to the third part of *L’art des connoistre les hommes*, published in 1666 as a reply to the Pierre Petit’s *De extensione animae et rerum incorporearum natura libri* (1665), a colleague of Cureau who had criticized his theory of soul’s extension in *Le Système de l’âme* (1664). Here La Chambre reformulates his (early) theory of the formal-local extension (Cureau de La Chambre 1634) using the opposition between ‘categorical’ and ‘entitative’ extension.

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## INDUSTRIAL PSYCHOLOGY

### **The tact and technology of Dale Carnegie**

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Dale Carnegie (1888-1955) was the most successful author in the self-help genre of the twentieth century. His best-known book, *How to Win Friends and Influence People*, has sold over thirty million copies, including its many translations, and is still popular. Carnegie presented *How to Win ...* as a guide to the “fine art of dealing with people”, according to him the greatest challenge in life. With numbered lists of rules and principles and many anecdotes to illustrate them *How to Win ...* teaches the reader the route to a happy life and success in business.

Carnegie's book was so successful, it has been argued, because it addressed the challenges and opportunities of American society of the 1920s and 1930s: a rapidly urbanising society in which people had to learn to make friends and do business with strangers, and in which success often depended on one's ability to influence people one didn't know personally. The book's enduring, global appeal can be explained by the fact that this kind of society is now found all over the world. I will argue, however, that there is another way to understand Carnegie's success. His universal appeal lies in the fact that he speaks to a situation that is *constructed as* universally human, instead of socially, culturally, economically or politically specific.

For this universality Carnegie drew on psychology, in particular the work of Willam James and Walter Dill Scott. Central in his ideas about influence and how to get it was the law of ideomotor action and the concept of suggestion. Carnegie believed that influence is usually not the result of reason, but of suggestion. Influence works best unconsciously. What distinguishes Carnegie from the psychologists that inspired him, however, is that he saw what suggestion required in practice, and how people could be trained in these techniques of persuasion. Carnegie's public speaking courses and his books taught that influence depended on personality. The courses and books presented inspiring personalities like Abraham Lincoln, John D. Rockefeller and Dale Carnegie himself as model influencers.

What these people had realised, Carnegie taught, is that people are predominantly interested in themselves. Only by speaking to their interests could one hope to influence them. This interest, moreover, had to be real, otherwise it would not work. To become influential therefore required a personal transformation: one had to become genuinely interested in other people, sincerely appreciative of them. Carnegie's signature combination of sincerity and manipulation has drawn much criticism ever since *How to Win ...* was published. Carnegie's sincerity has been called fake or impossible, but I believe this is a mistake. The revulsion that Carnegie arouses in some people, I will argue, stems from the realisation that it is actually possible to "be friends and influence people", to be sincere and instrumental at the same time.

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## **Industrial psychology in Hungary in the Era of state socialism**

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Recently we were faced with an increasing interest in the history of Hungarian psychology, reflected by a growing number of articles and books on the subject. In the past few years a couple of work has been published about the history of experimental, educational and clinical psychology (Kovai 2015; Pléh 2016; Szokolszky 2016). However the exploration of the history of industrial psychology is still missing. This paper's aim is to make up this shortfall. In the same time I would like to point out the special political role Hungarian industrial psychology played during the communist era.

Szokolszky (2016) in her paper about the history of Hungarian psychology mentioned its uniqueness in spite of the tight connections with German and Austrian psychology. A further source of the uniqueness of Hungarian psychology was that it had to adjust to extremely different social and political establishments.

First Hungarian laboratories, investigating skills and aptitudes were founded in the interwar period but only a few of them survived world war 2. They were closed down in the 1950-ties but after revolution by the end of 1960-ies a new era of prosperity dawned to them. Upheavals in Czechslovakia and Poland against the one party system and student movements in western countries warned the political decisionmakers in Hungary that "human factor" cannot be



ignored. This understanding coincided with endeavours which came from cautious approach of the country to market economy.

By the 1970ties every significant Hungarian enterprises – metallurgical works, mines, textile works and other industrial companies, community transport, post, the army and police – had their psychological laboratories. From 1970 a new journal, *Ergonomy* had been published with a large stuff of industrial psychology. In 1972 a representative conference was held in Moscow, which reflected growing interest of the former communist countries in the issue. Hungary was represented by a huge delegation, 44 participants, at this conference.

Although industrial psychology had a lower prestige among psychologists, laboratories being sometime were asylums for disgraced party cadres, it played a very special role. Although the main job for psychologists there was investigation of capabilities of workers, they could not avoid to learn about workers' complains and impulses against the management. Since they, according to professional rules of psychology, were obliged to keep private informations as confidential, people were less frightened to tell them out about their problems. In addition in most enterprises psychology departments shall report directly to the director of the unit, that is they could get out the formal hierarchy.

From the 1970-ies industrial psychologists were more and more preoccupied with human relations of the factories. Although in this era changing job might mean a disadvantage for the workers, they used it more and more as an instrument of wage battle. This was not an issue that could be clearly adressed, since Hungarian government was workers' and peasants' representative (in principle). Psychological interpretation of the reasons why factory workers were not satisfied with their wage and position was more acceptable for the policymakers than the political one. This is why by the end of the 1980-ies some of the big laboratories of industrial psychology became representatives and protectors of workers' interest.

It is paradoxical that none of these laboratories – which sometime seemed to be promoters of democratic endeavours – did not survive the system's change. State industrial companies were closed down and laboratories also could not avoid their fate. True, in the era of globalising economy and mass unemployment the any kind of care for workers lost its meaning.

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#### **The emergence of psychotechnics: the Italian case\***

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Historical literature shows us how the applications of psychology to problems of industry, business, and vocational choice expanded remarkably since the beginning of the 20<sup>th</sup> century. In the historical context of the 'second industrialization' a specific field of psychology, named applied psychology and psychotechnics, emerged. It was employed to facilitate positive

labour relations, as well as to improve working conditions through workplace analyses, ergonomic planning, and aptitude tests (Pickren & Rutherford 2010). Certainly the most studied figure in this field of research is that of Hugo Münsterberg. His main thesis was based on the idea that any worker, assigned to the right position, would produce more and better (Blatter 2014; Hale 1980). Although it was mainly thanks to him that applied psychology and psychotechnics were popularized in the U.S., the context of Taylorism had already opened a space for new experiences in this innovative area (Schultz & Schultz 2008).

The influence of Münsterberg and Taylorism soon reached Europe (Herrero & Carpintero 1999; Sinatra, Sokal, & Tanucci 2007), circulated between researchers and thereby marked indirectly the roots of psychology as a discipline, inside and outside the University.

This paper focuses on the Italian case and shows the trajectory of Psychotechnics on different levels: historiographically, institutionally and scientifically. Firstly, I will comment on the function that historians have given to Psychotechnics, underlining that its practice has been often associated with a 'crisis' of Italian psychology (Proietto, Lombardo 2015). Secondly, I will analyze the first academic positions established in this field of research: who were the psychotechnicians? Were they physicians or psychologists? And how did they collaborate with each other? Thirdly I will show some of the practices that psychotechnicians used to reinforce their status and to explore the labor situation. With the help of an analysis of the articles published in the journal *Rivista di Psicologia* in the first half of the 20<sup>th</sup> century, I will be able to outline the socio-historical context.

The rivalry and collaboration between professionals as well as innovative and traditional practices will give me the opportunity to re-think this subfield of psychology, considered as a starting point for reconstructing the history of psychology taking into account new categories of analysis: the interaction between human and machine, the intersection between science and social context, the role of experts in society, and the relation between scientific knowledge and policy.

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## SCIENCE, ANTHROPOLOGY AND COMMUNICATION [SCIENZA, ANTROPOLOGIA E COMUNICAZIONE]

### **A wrong history. Engineering weltanschauung and humanities**

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Let me start this paper with the song *Una storia sbagliata* by Fabrizio De André, as epigraph. Beyond the tragedy of the Pier Paolo Pasolini's death, this lyric can assume a larger significance over the present time contingencies. The experiences performed in the scenario of the Italian technical universities with reference to the humanities are, frankly speaking, depressing. The Chimaera of a twofold culture, as appeared in the fifties of the past century, the illusions of a machine civilization (*La Civiltà della Macchine*) disappeared under the wealth of the globalization. Starting from the Italian experiences at the times of the “economic miracle” many considerations can be drawn, but the optimism year by year has vanished. In the mid Nineties in the Politecnico di Torino an Institute for Advanced Studies in Humanities was founded with the best hopes of a global rebuilding of the engineering paradigm. The invited lecture held by Kenneth Keniston, with the title *The Crisis of the Engineering Algorithm*, confirmed the necessity of entering the “polytechnic cathedral” new knowledge belonging to the philosophy, history and sociology, obviously embedded in an engineering frame. This experience continued for some years but a fading phenomenon emerged forced by a movement performed by the most conservative governance that advanced some fear of a de-rationalization of the discipline: a sort of abdication in front of the self-reference theorem. Kenneth Keniston said that “a century ago, the world made an extraordinary discovery: that practical problems could be solved by the systematic application of science [...] This discovery has transformed the world beyond any imagining of those who lived a century ago. [...] Today, however, a contradiction has opened between the algorithm and the realities of productive life of the engineers [...] The fundamental question for engineering education, then, is how to devise methods of preparing graduates more adequately for that complex and messy world, but without losing the dedication to the brilliant problem solving algorithm of engineering”. Now, at the end of the second decade of XXI century, the crisis of the history, as emphasized by Armitage and Guldi, joined with the engineering algorithm one, mandatory forces a consciousness process in the direction of the role of history within the engineering Weltanschauung. The historian works under the fear of the forgetting factor, a paradox that revolves the time arrow, because is the most recent memory to suffer forgetfulness. In fact the over-accumulative information process leads to a more and more fragile documentation. On the contrary the engineer, whose core paradigm is the design challenge, works with fear of the forecasting factor. In fact in front of the cultural horizons enlargement his expectation window becomes more and more narrow. The *Wisdom of the Ancients*, as considered by Francis Bacon in the 17<sup>th</sup> century, on other hand, had a larger (and more imprecise) view of the past, that was the reason of the wisdom itself. Our messy world, forced us to follow faster and faster transformations, has convinced technicians, economists, and politicians to only look at the very near future, the only possible to a certain prediction. The long term history, and the long term technology, could be a new challenge for rebuilding a world before the irreversible extinction. This provocative assumption becomes the

basis for a rebirth of the humanities in the engineering worldview. What history for the technicians? As said Jonathan Gottschall the human species evolved for its narrative capabilities, and not for its techniques (that do not discriminate from other animals). The introduction of storytelling in the engineering algorithm, thus, could be the way of salvation not only for the History, but for the whole mankind. Otherwise we'll have only wrong histories.

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**An example of historical and scientific knowledge sharing.  
From the VII “extraordinary” meeting of the Italian Society of natural sciences (1878)  
to a modern geo-historical route (GHR)**

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The VII “extraordinary” meeting of the Italian Society of Natural Sciences was held in Varese (Lombardy) from 24th to 29th September 1878. This congress gave the opportunity to explore the geology and the nature of Italy but also to communicate and share the knowledge in a perspective of a “collective” science, born from the work of different scientists who share their knowledge at different levels: “intra-specialist” level, between the same discipline scholars and “inter-specialist” level, in an interdisciplinary perspective.

Leopoldo Maggi was the chairman of the meeting, appointed by Emilio Cornalia, director of the Italian Society of Natural Sciences and the sections were organized into four main areas: Zoology, Comparative Anatomy and Paleontology; Botany and Agriculture; Geology, Mineralogy, Chemistry; Paleontology. Each section appointed a president of the chamber and a secretary to draft the reports of each session. The main items concerning the area of Varese were the archaeological research of stilts in the Varese Lake and the recent palaeontological excavations near Besano that were bringing to light new and amazing fossils. Anyway many others topics were discussed by the various sections in those days of the conference.

The scientists of the meeting were involved not only in plenary sessions, addressed to all participants and in sections sessions, in which different experts could compare and share their research, but also in “external” events. Scientific trips around Varese were organized in order to make known to the participants, coming from different parts of Italy, the special features and the natural and the geological beauties of the Lombardy region in which they found themselves. So, trips and excursions completed the conference study days transforming a moment of “entertainment” in a research opportunity and a field study for different interesting natural aspects. Indeed, each participants took advantage of these routes to observe particular formations or to collect samples of rocks, plants or other more. During the meeting days in Varese, they visited the Sacro Monte of Varese and the Varese Lake and they did excursions to Brenno,

Viggiù, Besano and Saltrio (28th) and to Valganna, Cunardo, the Nivo Bridge, Ferrara and Val di Brinzio (29th).

In particular, the report of the excursion of the 28th September has become the item for planning a Geo-Historica Route (GHR). Starting to the historical source, like the report written by Ferdinando Sordelli, it was reconstructed on the field the same route followed by the Italian naturalists in that day. We try to find the same place where they went and what they saw, like quarries and palaeontological excavations. The goal is to share this historical and geological information to the general public through the implementation of an historical geotouristic attractions.

Therefore, the VII Meeting of the Italian Society of Natural Sciences with his scientific sections and his excursions on the field, represent an example of scientific sharing of knowledge consolidating a sense of belonging to the same community among scientists and showing how it is able to dialogue not only among experts in the same sector, but also between different fields and at the same time interact with the representatives of the various local communities, like the mayors, the priests, the technicians, the owners of quarries and mines and so on, how showed above all the excursions near Varese. All this historical and scientific information could be shared to the general public with the idea of the GHR that give the opportunity to follow the same steps taken by the naturalist scientists of the meeting of the 1878 and learn the geological knowledge of the past through the historical research.

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## **Antropologia e storiografia della scienza in Giorgio Diaz De Santillana**

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Famoso per i suoi scritti come *The Crime of Galileo*, l'insieme di saggi *Reflection on men and ideas* o su tutti *Hamlet's Mill*, Giorgio Diaz de Santillana, intellettuale complesso e poliedrico nella Storia della Scienza, vede fino allo stato attuale pochi tentativi di confronto con il suo pensiero, i quali nella maggior parte sono focalizzati su specifiche tematiche.

Gli obiettivi della ricerca sono: lo studio dell'opera di Giorgio Diaz De Santillana, nel contesto della sua vita, del pensiero accademico (come fisico, filosofo e storico della scienza) italiano, europeo e americano e di quello non prettamente accademico, come quello politico. Per facilitare l'analisi si distinguerà per grandi linee due ambiti, la storiografia della scienza e il pensiero politico-sociale.

Per il primo analizzando le opere edite dell'autore si delinea una linea di pensiero coerente e continuativa: lo studio della storia del pensiero scientifico a partire dalle società arcaiche, che con il passare del tempo catturano completamente la sua attenzione e nelle quali il genere mitologico, che dai più è ritenuto come lo step dell'infanzia dell'uomo, rappresenta il primo vero linguaggio scientifico per i suoi riferimenti astronomici; per il secondo ambito, bisogna ricordare che il suo atteggiamento critico nei confronti della società è influenzato dagli anni della seconda guerra mondiale, le leggi razziali, infatti, lo costrinsero ad emigrare dalla sua patria per le sue origini ebraiche. Attivo e schierato politicamente con posizione antifascista, compì opera di informazione insieme ad intellettuali come Salvemini. Negli anni del dopoguerra fu inviato più volte in Europa e in Italia dall'Università americana. Nel 1955 pubblicò *The crime of Galileo*, un'indagine ampia e acuta del processo a Galilei.

De Santillana vedeva nella libertà della ricerca l'unico antidoto al totalitarismo e individuava nel processo a Galilei un momento paradigmatico nella storia dell'Europa moderna. Nel 1957, in un coraggioso articolo, *Galileo and Oppenheimer*, pubblicato in "The Reporter", elevava la sua protesta contro il ricorrente tentativo del potere politico di condizionare la coscienza del ricercatore; l'analisi della ricezione in ambiente accademico e non, dei suoi scritti, consultando archivi storici, come quello del giornale ufficiale del MIT (Massachusetts Institute of Technology, all'interno del quale dal 1941 De Santillana insegnò), "The Tech" o di giornali americani ed in ambito europeo e italiano. Contemporaneamente si traccerà la rete di intellettuali

a lui vicini. Tutto ciò rappresenterebbe una novità all'interno del panorama esistente, vista la scarsità di studi svolti a riguardo.

In questo modo si viene a delineare la figura, in particolare di De Santillana, ma in generale del ruolo e del pensiero dello scienziato nella società negli anni a partire dagli anni '30 fino agli anni '70. Da una prospettiva enriquesiana, di stampo razionalista, l'approccio si evolve verso uno di tipo antropologico. Una scienza che affonda le sue radici nel pensiero mitologico e archetipico dell'uomo, il quale sapeva che la sua vita era tracciata nelle stelle, che l'universo aveva un suo significato e tutto era legato da un filo rosso armonico; il fato del mondo antico può apparire paralizzante per noi moderni, dice De Santillana, che crediamo nel progresso scientifico, in senso leopardiano. Una critica che ben si inserisce e rappresenta gli anni interessati, quelli della fine del positivismo scientifico e l'inizio di una nuova visione del procedere della scienza e di cosa essa sia in realtà.

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## **BEYOND BOUNDARIES: CASE STUDIES**

### **The disciplining of interdisciplinarity in the human sciences. A case study**

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How did the shift from teaching to research as main focus of university work affect the human sciences? In 1985 the Faculty of Social Sciences at Utrecht University started an

interdisciplinary undergraduate program called ‘General Social Sciences’. Explicitly aiming at boosting the societal relevance of social science, the program combined insights from sociology, cultural anthropology, economics, psychology and pedagogy. The study material consisted of work by authors who themselves were oriented towards interdisciplinarity, ranging from Parsons, Giddens and Bourdieu to neo-Freudians and humanistic psychologists. Moreover, much attention was paid to the historical and philosophical roots of the social sciences, including critical analyses of French (Foucault), German (Habermas), British (Stuart Hall) and North-American (Lasch) scholars. Students were also introduced into non-mainstream strands such as action research and discourse analysis.

From the start, the ambition of the staff members was to write their own course material. Within ten years, this resulted in a series of textbooks on topics such as *Aggression and Violence*, *The Gift* and *Paradoxes of Modernization*, but also on epistemological issues, interdisciplinarity, and the history of the human sciences. In spite of this impressive scholarly production, the department of Interdisciplinary Social Science (as it was called since 1994) lost its distinctive orientation when, as a result of new university policy in The Netherlands, each department had to formulate its own research program. Since these research programs were supposed to conform to international publishing habits, the scholarly production gradually became more mainstream and discipline-oriented. Also, the teaching program lost its unifying power.

In the paper, I will relate in more detail how the intellectual program of Interdisciplinary Social Science gradually became disciplined and marginalized its historical and philosophical roots.

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### **Anthrozoology in the Netherlands: a case of discipline formation**

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Anthrozoology is a relatively new discipline that is engaged in the study of all aspects of human-animal relationships. It emerged during the 1960’s and 1970’s from the largely accidental discovery of the effects of the presence of animals during therapy sessions and in other healthcare settings (Beck & Katcher, 1984; Levinson, 1962, 1969; Podberscek, Paul, and Serpell 2000). Since then it has largely grown from professional practice into an amalgam of, among other disciplines, clinical and health psychology and animal behavior studies, which has been consolidated in international organizations like IAHAIO (which has a primary focus on professional practice) and ISAZ (which has a primary focus on scientific research) (Bradshaw, 1991; IAHAIO, 2015; ISAZ, 2015).



From the ISAZ news archive (Bradshaw, 1991; Brown, 1992; ISAZ 2015; Podberscek, 1993, 1995) it appears that both practitioners and scientists from the Netherlands were part of this development from the beginning and in some cases even played a central role in the process that led up to the formation of what is now slowly growing into a mature discipline.

Based on archival research and interviews with two of the main players in the Dutch field, we try to reconstruct what were the factors that contributed to the formation of this young discipline and how that process related to the international field. It will be shown that, mirroring international trends, anthrozoology in the Netherlands primarily emerged from the practice of animal assisted interventions, stressing societal relevance over scientific relevance, and how this relates to an international trend in which the search for theory seems to be discarded, because the interventions work anyway (Fine, 2015).

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### **Probing the boundary between knowledge and science in the history of psychology**

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Late Antiquity, the time of transition from classical antiquity to the Middle Ages, is also, seemingly paradoxically, the period during which some of the ingredients that have since constituted the identity of the occidental self have emerged. In particular, new theological concerns in Christianity resulted in the emergence of a radically new notion of the self and a new interest the inner life of the individual, along with new lines of psychological investigation. These ancient investigations of the human mind, emotions, and behavior, to which the roots of Western psychology ultimately go back, provide an important source of evidence for studying the history of psychological knowledge as well as the shifting boundary between knowledge and science in the history of psychology. Nevertheless, psychology did not exist in the ancient and late antique world as an independent science, nor was a distinction drawn between scientific and moral or religious elements of psychological knowledge. Accordingly, this important source of evidence has been neglected by scholars investigating the history of Western psychology, who have tended to focus on the 19th-century roots of scientific psychology. The proposed paper

argues for the need to adopt a broad view of what constitutes psychological knowledge and the way it is acquired and articulated. It focuses on the theistic psychology that was developed within the early monastic movement in Christianity, and seeks to make this important source for studying the history of psychology available for scholars other than historians of late antiquity and Christianity.

More specifically, I propose to examine the relationship between mode of observation and theory in late antique psychology by analyzing the ways in which introspection and theology were systematically combined in order to produce psychological knowledge. Introspection, as a means of acquiring evidence about mental phenomena, was of central importance in the emergence of monastic psychology. Evidence derived from introspection was interpreted in the light of Scripture, which provided the monks help in the discovery of self-knowledge. In turn, the acquisition of such knowledge was a form of searching for God.

The introspective literature of the early monastic movement reveals a systematic science of the mind, in which empirical, experiential, and religious or moral elements of knowledge are intertwined. This broad view of what constitutes psychological knowledge was displaced by a narrower one in the 18th century. With the appearance of quantitative introspective methods in the middle of the 19th century, the study of the mind took shape as an empirical, progressive, and laboratory-based science. Although psychologists disagreed on the appropriate introspective procedures to be used, there was a wide agreement that introspection is psychology's essential method for gaining evidence on the constitution of the human mind.

To probe the boundary between knowledge and science in the history of psychology, in the second part of the paper I propose to examine monastic introspection in view of introspective procedures employed by 19th and early 20th century psychologists (e.g. Edward Titchener, Wilhelm Wundt, William James), and in view of the controversy over the legitimacy of the use of such procedures. A comparative examination of modern and ancient introspective procedures will shed valuable light on the history of knowledge development. Moreover, differences in interpretation of introspective evidence will uncover the different conceptual frameworks within which the evidence is understood, and hence the extent to which description and explanation are intermixed in human thought. This juxtaposition will also uncover the theoretical premises on which different kinds of psychological theories rest, as well as the extent to which these assumptions determine the mode and scope of psychological inquiry.

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## **PHYSICAL AND MATHEMATICAL SCIENCES IN THE 20TH CENTURY [SCIENZE FISICHE E MATEMATICHE NEL NOVECENTO]**

### **On the nature of Hilbert's axiomatic reasoning**

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David Hilbert is generally considered the father of the modern axiomatic method. This is correct for three reasons: (1) he adapted the axiomatic practice to the abstract demands of modern mathematics; (2) he shaped a new image of the axiomatic method; (3) he included the method into programs aimed to justify the mathematical sciences through modern logic once and for all.

During the talk I shall focus on the second of these reasons trying to clarify what is new in Hilbert's axiomatic method. In fact, the discussion on the nature of this method according to the German mathematician is still open. There are (a) those who have seen it as a synthetic method, i.e., a method to derive theorems from axioms already and arbitrarily established; (b) others have counter-argued in favor of its analytical nature, i.e., given a particular scientific field the method is useful to reach the conditions (axioms) for the known results of the field (theorems) and to rightly place both in a well-structured theory; (c) still others underlined the metatheoretical nature of the axiomatic reflection, i.e., the axiomatic method is the method to verify whether axioms already identified satisfy properties such as completeness, independence and consistency.

Each of these views has highlighted aspects of the way Hilbert conceived and practiced the axiomatic method, so they can be harmonized into an image better suited to the function the method was called to fulfill: i.e., deepening the foundations of given scientific fields, to recall one of Hilbert's well-known expressions. Considering some textual evidence from early and late writings, I shall argue that the axiomatic method is in Hilbert's hands a very flexible tool of inquiry/way of reasoning and that to lead analytically to an axiomatic well-structured theory it needs to include dynamically both synthetic procedures and metatheoretical reflections. Therefore, in Hilbert's concern the expression "deepening the foundations" denotes the whole set of considerations, permitted by the axiomatic method, that allow the theoretician first to identify and then to present systems of axioms for given scientific fields.

So conceived, Hilbert's concern challenges well-established ideas that goes around on the modern axiomatic method and at the same time the closed and self-referential model of reason linked to these ideas. According to them, just like the traditional axiomatic method – i.e., that used by Euclid in the *Elements* in order to present geometry – the modern axiomatic method

shaped by Hilbert preserves a synthetic nature and the main difference between the two would lay on the more abstract character (instead of the traditional concrete one) that emerges in the German mathematician's concern. In his later writings the abstract character of the method – i.e., different interpretations for systems of axioms arbitrary chosen – would have been perfected formally through formal languages and logical calculi. Maybe these ideas well-represent the image of the axiomatic method defended by other mathematicians, however they are inadequate to capture the much more articulated image shaped by Hilbert and sketched above. This image is, I believe, his real innovation. Hilbert's axiomatic method cannot be neither only synthetic nor abstract in its nature, because it is conceived and practiced as a very flexible tool of inquiry before being used as a tool to present axiomatic theories for given scientific fields (i.e. interpretations).

As a consequence, Hilbert's concern does not support, as one may think, a closed and self-referential model of reason since (1) the axiomatic reasoning is not usually detached from given interpretations, (2) the choice of axioms is never arbitrary, even though it is a creative activity, and (3) the set of considerations required by the method cannot be mechanized.

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**In nome della patria e della scienza:  
impegno civile e militare dei fisici italiani tra Ottocento e Novecento**

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In questa relazione si analizzano due diverse forme di impegno, civile e militare, che hanno visto coinvolti fisici italiani tra Ottocento e Novecento. L'analisi si fonda su una ricerca finanziata dal "Museo Storico della Fisica e Centro Studio e Ricerche Enrico Fermi" (Centro Fermi) di Roma.

La prima forma di impegno oggetto di analisi, l'impegno civile, è testimoniata dal coinvolgimento di un certo numero di fisici italiani nelle istituzioni del Regno di Sardegna e successivamente del Regno d'Italia, con particolare riferimento al Senato del Regno (1848-1943). Lo Statuto Albertino (1848) prevedeva infatti che il potere legislativo fosse esercitato,

oltre che da una Camera elettiva, anche da un Senato composto da membri nominati a vita dal Re, aventi almeno 40 anni di età e scelti nell'ambito di 21 categorie elencate nello Statuto. Una piccola ma significativa componente di tali Senatori fu rappresentata da fisici e astronomi, nominati talvolta per essere tra "coloro che con servizi o meriti eminenti avranno illustrata la patria" (è il caso, ad esempio, di Carlo Matteucci e Ottaviano Fabrizio Mossotti, che parteciparono direttamente alle vicende risorgimentali e in particolare alla sanguinosa battaglia di Curtatone e Montanara) o più frequentemente per essere stati membri di un'Accademia delle Scienze da almeno sette anni (a questa categoria appartenevano personalità quali Giovanni Plana, Vito Volterra, Pietro Blaserna e Orso Mario Corbino). I documenti preservati dall'Archivio Storico del Senato della Repubblica, documenti quali atti parlamentari, disegni di legge, relazioni degli Uffici Centrali e fascicoli personali, rappresentano una fonte preziosissima per comprendere la morfologia di questo insieme di "senatori fisici", il loro specifico contributo ai lavori parlamentari, nonché il ruolo che le loro competenze e sensibilità "scientifiche" ebbero sulla loro attività parlamentare. L'analisi di tali documenti restituisce un quadro dettagliato sui principali contributi legislativi di questi senatori, mostra come tali contributi si siano talvolta rivelati determinanti nell'iter legislativo, ed evidenzia come le loro iniziative parlamentari spaziarono nei settori più diversi della vita del paese, quali l'istruzione, la ricerca, le infrastrutture e le questioni energetiche.

Un caso emblematico relativo alla seconda forma di impegno esaminata, l'impegno militare, è invece rappresentato dal diretto contributo di diversi fisici italiani alle vicende legate alla Grande Guerra (1915-1918). Come noto, il primo conflitto mondiale vide accentuarsi, molto più che in precedenza, il ruolo degli aspetti scientifico-tecnologici e tra coloro i quali inventarono nuovi strumenti, misero a punto nuove tecnologie e organizzarono nuovi servizi vi furono alcuni fisici. L'analisi della documentazione archivistica e di altre fonti primarie mette in luce come essi contribuirono a un ampio ventaglio di tecnologie, talvolta con ricerche a tavolino, ma molto spesso con studi "sul campo": dalla realizzazione di nuovi impianti radiotelegrafici appositamente studiati per l'Esercito e la Marina (le ricerche del Premio Nobel Guglielmo Marconi), agli studi di balistica in riferimento a questioni legate all'artiglieria aerea e contraerea (esperienze sui dirigibili di Vito Volterra); dagli studi del suono con la realizzazione di nuovi apparati per la rivelazione della posizione delle postazioni nemiche (metodo "fonotelemetrico" di Antonio Garbasso e Pietro Cardani), alle ricerche mirate alla costruzione di idrofoni per l'individuazione acustica dei sommergibili (il "tubo C" di Antonino Lo Surdo).

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## **G. Vailati, between modernity and history**

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Giovanni Vailati (Crema, 1863-Roma, 1909) is placed in the right position of both philosopher and scientist, because he tried to make a valuable contribution to the relationship between philosophy-science, psycholinguistics, philosophical methodology.

A particular role for Vailati is the investigation around the “*error*” of the scientist, who always works through “*trials and errors*”.

Finally, it deserves a special mention his reflection upon the “*scientific method*” which does not depend on the discipline in question.

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## **Misurare la scienza: una sonda esplora la platea**

### **Il Servizio Opinioni RAI tra ricerca empirica e decodifica del messaggio televisivo**

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L’analisi sistematica delle opinioni dei telespettatori nei confronti delle trasmissioni è uno degli strumenti più utili per indirizzare ed aggiornare opportunamente l’impostazione dei programmi. Il soddisfacimento delle esigenze del pubblico è la prima preoccupazione della RAI, tra gli anni Cinquanta e Settanta del secolo scorso.

Avviate negli anni Cinquanta negli Stati Uniti, a partire dagli anni Sessanta le ricerche sul livello di interesse del pubblico per la scienza e l’informazione scientifica e sul suo grado di conoscenza in ambito scientifico (*public awareness of science*) diventano comuni in molti Paesi, Italia compresa.

In numerose occasioni, i risultati di queste ricerche vengono utilizzati per evidenziare lo scarso interesse per i temi scientifici e un livello troppo basso di «alfabetizzazione scientifica», auspicando così uno sviluppo quantitativo e qualitativo dei programmi dedicati a scienza e tecnica.

Già nel 1940 la RAI si preoccupa di studiare, attraverso indagini statistiche, le abitudini degli ascoltatori della radio e le loro preferenze; nel 1952 promuove una seconda indagine campionaria a carattere nazionale per determinare le abitudini di ascolto e le preferenze dell’uditorio per i diversi programmi, la tipologia socio-culturale degli abbonati e le ore di maggiore ascolto.

Con l’avvento della televisione si assiste ad un aumento del numero di inchieste, predisposte con maggiore continuità ed omogeneità. La RAI provvede a riorganizzare il suo

Servizio Opinioni, i cui compiti sono, da un lato, effettuare, attraverso indagini campionarie, un'analisi continua dell'uditorio, studiandone sistematicamente l'ampiezza, la composizione e le abitudini, dall'altro, raccogliere ed analizzare, con impostazione obiettiva e impiegando le più aggiornate tecniche statistiche, i giudizi del pubblico sugli aspetti generali dei programmi e sulle singole trasmissioni. Tali inchieste, che richiedono un periodo di tempo piuttosto esteso per la preparazione, esecuzione ed elaborazione dei risultati, trovano riscontro nei «Quaderni del Servizio Opinioni», relazioni periodiche illustrative dell'indagine effettuata con cadenza annuale, pubblicazioni a diffusione interna, oggi custodite presso la Bibliomediateca "Dino Villani" di Torino.

Con l'avvento degli anni Sessanta, l'interesse per i tipi di pubblico stimola una nuova e vasta serie di studi ed indagini sul comportamento del "consumatore" televisivo, inchieste realizzate con il confronto interdisciplinare tra analisi economica, politica e statistica.

È allora possibile classificare le motivazioni recondite che determinano le scelte dello spettatore in: pulsioni fisiologiche, emozioni, interessi, tendenze. Vedremo come, generalmente, l'atto comportamentale in sé risulti difficilmente condizionabile da una di esse nello specifico, anzi esso appare in genere il prodotto di una serie di motivi che interagiscono tra loro.

Le trasmissioni scientifiche interessano il pubblico? Come è graduato l'interesse per i vari argomenti tecnoscientifici? Quale il numero degli ascoltatori? Quali le loro caratteristiche? A tutta questa serie di interrogativi rispondono due inchieste che si intende porre a confronto: quella pubblicata sui «Quaderni del Servizio Opinioni Rai 1957-1964» e l'indagine commissionata nel 1973 dallo stesso Ente radiotelevisivo a Francesco Alberoni e al suo gruppo di analisti su «Risultati di una indagine sperimentale sui contenuti dei principali mezzi di comunicazione di massa negli anni 1969-1970».

Come una colonnina di mercurio il pubblico sale e scende sulla scala dell'ascolto a livelli statistici molto significativi. Vedremo come, in base al lavoro degli analisti, ogni settimana i dati vengano trasmessi ai programmisti e un'ampia sintesi dei risultati delle indagini sia portata a conoscenza di coloro cui interessano i rapporti tra televisione e pubblico: autorità governative, giornalisti, docenti, sociologi, pubblicitari.

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