

The History of the Human Sciences: an Open Atmosphere

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of the European Society for the History
of the Human Sciences

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The History of the Human Sciences:
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The European Society for the History of the Human Sciences

*Ruud Abma**

The 27th Conference of the European Society for the History of the Human Sciences (ESHHS) took place in the lovely city of Bari in the south of Italy. Historians of the human sciences from all over Europe and a few colleagues from North America and Australia gathered together in the historical buildings of the University of Bari.

The ESHHS was founded in 1982 by a small group of European historians of psychology, who had attended conferences in the United States of Cheiron, the North American Society for the History of the Behavioral and Social Sciences, founded in 1968. Inspired by the example of their American colleagues, the European pioneers decided to set up their own society, which was initially called 'Cheiron Europe' and changed its name to ESHHS in 1996.

As a social network, Cheiron-Europe was a success from the beginning. Scholars and students from many European countries met during the annual conferences and, in some cases, kept in touch in between conferences. The membership consisted of three kinds of historians. First of all there were psychologists who, for one reason or another, had ventured into the historical domain and were mostly involved in studying famous or forgotten psychologists from the past. Secondly, there were historians of science who had specialized in the historiography of the behavioral and social sciences. Thirdly, there had appeared a whole new group of young, 'critical' psychologists, who saw historiography as a means of demonstrating the role psychology plays in helping people adjust to the demands of capitalist society. This gave birth to a new type of study in which the history of the human sciences was approached from a 'contextual' angle.

The combination of these three types of historians in the 1980s gave Cheiron-Europe the distinctive flavour of friendly debate between proponents of various views and generations which still characterises it today. In accordance with the aims of Cheiron/ESHHS, the conferences and meetings are conducted in an open atmosphere: not only papers on the history of

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psychology but also studies in the domains of pedagogy, sociology, anthropology, biology or philosophy are presented.

Today, organizations such as the ESHHS are needed more than ever. Within the social and behavioral sciences, historiography is increasingly seen as a non-essential pastime for people who no longer do 'real' research. Moreover, research work is being subjected to thorough auditing, which especially affects the human sciences. Earlier this year, 46 editors of journals in the domain of science studies opposed the initiative for a European Reference Index for the Humanities (ERIH), asking the compilers to remove their journals' titles from the ERIH list.¹ Their argument: far from providing funding bodies with an allegedly exact measure of research quality, the ERIH embodies a fundamental misunderstanding of the way research in science studies and in the humanities in general is carried out and published, confusing internationality with quality in a way which is prejudicial to specialist and non-English language journals (not to mention book publications). The quality of a journal cannot be separated from its contents and its review process; it cannot be judged simply on the basis of scope and readership.

Those involved in science studies know all too well that we live in an age of metrics, in which everything is increasingly being standardised, quantified and measured. Within academia, this constitutes a threat to the very process that the compilers of ERIH claim to promote: the progress of science. If ERIH is adopted, it is likely that the number of journals will decrease and there will be less diversity in publications. The humanities are particularly threatened because the proposed formula of rating and ranking is adopted from publishing practice within the natural sciences, which diverges fundamentally from scholarly traditions within the humanities. The ESHHS, as a society for the historical study of the human sciences, has, during its own history, promoted diversity and has always welcomed contributions from marginal, dissident and unexpected sources. The proceedings in this volume reflect this variety of topics and perspectives, testifying to the fertility of the organization and the creativity and scholarship of its members.

NOTE

- 1 See "Journals under Threat: A Joint Response from History of Science, Technology, and Medicine Editors," published in, among others, *Journal of the History of the Behavioral Sciences*, 2009, 45(1): 2-4.

Abstraction and Empathy. Rereading Wilhelm Worringer's essay *Abstraktion und Einfühlung* on the occasion of the 100th anniversary of its publication

Christian G. Allesch*

In 1906, the art historian Wilhelm Worringer, a student of Heinrich Rückert, Georg Simmel, Heinrich Wölfflin and Artur Weese, completed his dissertation *Abstraktion und Einfühlung* at the University of Bern, Switzerland. The premise of this essay is that in the arts we can discriminate two stylistic approaches which represent different ways of encountering reality. Starting from the notion that beauty derives from our sense of being able to identify ourselves with the outside world and its objects, Worringer argues that representational art produces gratification from our "objectified delight in self," reflecting a confidence in the world as it is – as we can find it in the Renaissance art. It is that kind of aesthetic experience that led to the most influential theory of aesthetics at the end of the 19th century, namely the theory of *Einfühlung* (empathy), the main representative of which was Theodor Lipps, to whom Worringer explicitly refers in this context.

However, Worringer (1997, p. 4) argues that "this modern aesthetics, which proceeds from the concept of empathy, is inapplicable to wide tracts of art history." Thus we have to suppose a second type of aesthetics "which proceeds not from man's urge to empathy, but from his urge to abstraction" (ibid.). This urge to abstraction, as exemplified by Egyptian, Byzantine, primitive, or modern expressionist art, articulates a totally different way of encountering the outside world: it is a reaction to the frightening and worrying aspects of reality. This duality of aesthetic reactions, according to Worringer, can be used to explain the variability of styles in the history of arts: in historical periods of anxiety and uncertainty, man seeks to abstract objects from their frail and uncertain appearance and transform them into absolute, transcendental forms. As Worringer puts it:

Just as the urge to empathy as a pre-assumption of aesthetic experience finds its gratification in the beauty of the organic, so the urge to abstraction finds its beauty in the life-denying inorganic, in the crystalline or, in general terms, in the abstract law and necessity (Worringer, 1997, p. 4).

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We will follow up this theoretical idea later on but will first take a look at the fate of the author and his thesis because its contemporary reception reveals some interesting aspects of the circumstances of publishing at that time. It is a case history of a theoretical idea that was published at the right time by the right author under fortunate circumstances.

Wilhelm Worringer was born in Aachen in 1881. As a student of art history he attended lectures by Heinrich Rückert, Georg Simmel and Heinrich Wölfflin in Munich and Cologne. Then he went to Bern where he finished his studies at the age of twenty-five, with his doctoral thesis, and received a PhD "summa cum laude" in January 1907. In the same year, this thesis was published in a private edition, as academic custom required, and this would have been the end of the story under normal circumstances. Worringer outlined this procedure as follows:

But what was I to do about the regrettable obligation, then in force, for dissertations to be printed? A question of cost! I was helped by the fact that a brother in the publishing business had at his disposal a small printing press. At this press the prescribed number of compulsory copies were now printed and beyond these a surplus for domestic use, so to speak – all very cheaply. The copies for 'domestic use' I then sent at a venture to personalities I supposed likely to have either a personal or a purely objective interest in, and understanding of, the essay. One of these copies reached the poet Paul Ernst. In his case, both reasons for supposing an interest held good: personal, because I had met him whilst travelling in Italy, and objective, because I was aware of his well-known work in the field of art theory.

With the dispatch of this copy, the first link was forged in a very cunningly fortuitous chain of circumstances. What happened? Paul Ernst overlooked the fact that what he had in front of him was only a printed thesis, and not a published work for general distribution. Strongly affected by its contents, he sat down and wrote a review for the periodical *Kunst und Künstler* in such terms as inevitably to attract the greatest possible attention to the run of my ideas. Booksellers, who immediately received orders for the book, searched in vain through their lists of new publications: this new publication was nowhere to be found. I myself received personal enquiries. They included one from the young Munich publisher Reinhard Piper, who some years previously had published a "Munich Almanac," in which a literary contribution of mine had appeared. Naturally, this afforded an opportunity to clear up the misunderstandings under which Paul Ernst had written his review; the consequence was an offer from Piper to undertake the publication of the paper (Worringer, 1997, p. xviii s.).

This was the story of how the first edition of *Abstraktion und Einfühlung* came about in 1908. Two years later, in 1910, that edition had gone into a third printing, and during the following decade, until 1921, twelve editions were published. Later reprints in 1948, 1959 and 1976, had to be produced

in numerous editions as well. The same is true for the translations into foreign languages, namely into English, French, Italian, Catalan, Dutch, Romanian, Spanish, Czech and Hungarian. A licensed edition was published in the GDR in Leipzig in 1981. A recent edition in German was published in 2007 on the occasion of the centenary of the first printing with an informative introduction by Claudia Öhlschläger, a German scholar of comparative literature. The editor of this edition, Helga Grebing, is certainly right to state that “it is probable that very few dissertations will ever enjoy such success” (Grebing, 2007, p. 7; my transl.).

Parallel to this editorial success the essay has been the subject of lively debate in certain artistic circles which were at the forefront of the avantgarde in the fine arts, for example in the *Blaue Reiter* circle in Munich, Franz Marc, a main representative of this group, recommended Worringer to his friend Vasily Kandinsky as “ein feiner Kopf, den wir sehr brauchen können” (Grebing, 2007, p. 8) and praised “the rigorous historical mind who ought to disquiet the anxious opponents of the modernist movement” (quoted from Öhlschläger, 2007, p. 24). Paul Klee wrote a similar assessment in a letter to his wife in 1911:

Endlich einmal ein Akademiker, der diesen neuen Ideen aufgeschlossen und verständnisvoll gegenüberstand, der vielleicht für sie eintreten und sie verteidigen würde gegen so viele konservativ eingestellte Kunsthistoriker, die von vornherein alles Neue und Ungewohnte ablehnten und sich erst gar nicht damit beschäftigten (Letter to his wife Lily, July 30, 1911, in Klee, 1979, p. 768; quoted from Öhlschläger, 2007, p. 25).

An important supporter was Thomas E. Hulme, an English writer who wrote little, but as a critic for the literary magazine *The New Age* exerted a notable influence on British modernism. In 1914, after meeting Worringer at a conference in Berlin, Hulme began to introduce Worringer’s ideas to a London audience with a lecture on *Modern Art and its Philosophy*. Worringer’s ideas were thus recognized by the English speaking world, although *Abstraction and Empathy* remained untranslated into English until 1953. In America, Worringer was known mainly through an essay on *Spatial Form in Modern Literature*, written by Joseph Frank and published by Allen Tate in three consecutive issues of the *Sewanee Report* in 1945. Joseph Frank, who was a young man of 27 at that time, later became well known as a biographer and interpreter of Dostoevskij, and is now “professor emeritus on active duty” at the Department of Slavic Languages and Literatures at Stanford University. Hilton Kramer, an American art critic and cultural commentator (born in 1928), who wrote the introduction to the most recent English translation of *Abstraktion und Einfühlung* (Kramer, 1997), reports that it was in that essay that he first heard of *Abstraction and Empathy*, when he was an undergraduate in the late 1940s. For him and for a number of other art critics *Abstraction and Empathy* remains “one of the classic texts in the literature of modernism” (ibid., p. xiv).

Thus, the unbroken interest in this essay is the result of many different reasons. At first there are historical aspects. Claudia Öhlschläger (2007, p. 13) rightly supposes that “it is probably due to the anthropological orientation of this theory that renowned artists and writers felt affected by it, and not to its historical validity which has sometimes been questioned with good reasons.” Also Helga Grebing (2007, p. 10) is right in stating that in order to understand the “quasi revolutionary impact of Worringer’s dissertation,” one has to face the fact that the official evaluation of art in the German empire of that time followed the “artistic dictatorship” of His Majesty, Wilhelm II, and his favourites in arts and sciences. At the time when Worringer’s essay was published, Wilhelm II prohibited the performance of Gerhart Hauptmann’s play *Die Weber*, and it should be remembered that at the same time one of the most prominent philosophers of the Berlin university, Eduard von Hartmann, supported the institution of a “vice squad” (*Sittenpolizei*) in his *Philosophy of the Beautiful* (1890/1924), which should have “the responsibility of tolerating the beauty of art or nature only in those places and at that time where it is surrounded by the necessary securities against its abuse” (ibid., p. 453; cf. Allesch, 2005). It is clear that in this historical context an aesthetic theory which suggested a very clear argumentation that art cannot and should not definitely be naturalistic and empathic and that there are also other basic intentions of man that “urge” him to abstract his impressions of the outer world, had a fascinating impact on those groups among artists and aestheticians who approved the emergence of modern art.

It seems that Worringer himself at that time saw these historical reasons for his popularity. In his foreword to the 3rd edition of 1910 – two years after the first official printing of his book – he wrote:

The fact that the success of this paper has made a third edition necessary within such a short space of time strengthens me in the consciousness, which has so often consoled me for the insufficiency and merely experimental character of my essay, that in my statement of the problems and my attempt of their solution I have met the unspoken postulate of many who, like myself, have seen through the one-sidedness and European-Classical prejudice of our customary historical conception and of evaluation of art (Worringer, 1997, p. xxii).

However, in his later years he was rather surprised by the enduring popularity of his first academic publication. In his interpretation, it was primarily by chance that his essay reached the attention of such a broad audience. He attributes the success of this publication mainly to the fact that Paul Ernst reviewed it, on the basis of the erroneous assumption that it had been officially published. Looking back to the history of his book on the occasion of the reprint in 1948 he wrote:

Does the reader understand why now, when I look back over the intervening forty years, I feel compelled to relate this story at length?

That I feel compelled to relate it on the occasion of a new edition, after two world wars, of a paper that has long since become historic and has probably run into more editions than any other doctorate thesis can ever have done? Is it not worthy of mention that this success was due to a pure misunderstanding and hence to a seeming coincidence? And what different road would my whole life have taken without this providential coincidence? For I should never have taken my capabilities seriously enough to embark upon an academic career. Only the rapid success that followed the publication of my first work gave me the necessary courage. Without that misunderstanding this work itself would have led an unregarded existence in the vaults of the University Libraries (Worringer, 1997, p. xix).

In order to underline his conviction that it was by chance or even by providence that this book had such exceptional success, he adds another argument: He identifies the moment when he got the crucial inspiration for his thesis as a visit to the Trocadéro Museum in Paris, where his contemplation of the exhibition was suddenly disturbed by the appearance of Georg Simmel, whom he knew from his former studies in Berlin. Although there was no personal contact at that incident, Worringer attributes the origin of his ideas on "Abstraction and Empathy" to the pure presence of his admired teacher. He describes this moment as

[...] a contact consisting solely in the atmosphere created by his presence, that produced in a sudden, explosive act of birth the world of ideas which then found its way in my thesis and first brought my name before the public. But this was not enough! My reason for underlining this chance encounter is its truly miraculous sequel. To anticipate its account: Years pass [...] and one day Georg Simmel, of all men, who is the first to react, with a spontaneous call, to the surprise afforded him by the chance reading of my trains of thought (Worringer, 1997, p. xvii).

This sequel too, however, was no coincidence. Paul Ernst, who was the initiator of this success story, was a close friend of Simmel and had felt, as Worringer himself puts it, "an immediate need to share his discovery with him and sent his copy on to Simmel" (*ibid.*, p. xx). The result was that Simmel, "after reading the book, wrote the exciting letter which had, and was bound to have, upon the unsuspecting young author the effect of establishing a bridge, both mysterious and meaningful, to his happiest hour of conception" (*ibid.*).

Worringer concludes with the remark:

Chance or necessity? I later became closely acquainted with Simmel, and again and again we discussed the enigmatic stage-management with which destiny created between us a link, that must have been prefigured in spiritual space (*ibid.*).

Modern commentators are sure that it was definitely not by chance or destiny that Worringer's essay became that popular at that time. But Worringer is not totally wrong: There was in fact a fascinating chain of fortunate events which favoured the success of the essay. Certainly it was a brilliant idea to send the essay to Paul Ernst, and this decision was probably not by chance. Thus, chance and destiny were – contrary to the conviction of Worringer – not the decisive factors in the process.

I referred to historical context variables and chance or destiny as reasons for the success of Worringer's book. But there is still another possible reason: It simply conveyed a brilliant idea. One argument for the suggestion that Worringer found a rational solution for a lasting problem in aesthetic theory lies in the fact that also other authors developed similar ideas, although they had not found the same public interest for them as Worringer did. As an example for this, I take the theoretical explanation of the aesthetic which Ernst E. Boesch has developed in his book *The Magic and the Beautiful* (*Das Magische und das Schöne*, 1983). Although he did not know Worringer's essay at that time, he came to an astonishingly similar theoretical construct: The magic and the aesthetic, Boesch argues, are two contrasting ways of facing reality. While magic aims to distance strange and threatening experiences from the world outside, aesthetics strives to bridge the gulf between the internal and external world by means of assimilation and empathy. In this theoretical approach the role of empathy in constituting the experience of beauty is entirely the same as in Worringer's theory. The main difference lies in the fact that Boesch relates the opposite pole of this dimension, namely the distancing and abstracting attitude toward the outside world to the magic worldview and not to abstraction in art, as Worringer did: While the magic attitude towards objects expresses a distancing function, the empathic disposition stresses being in harmony with the world. While the aesthetic attitude tends "to expand the validity of the inner images" and "to transform counter-world into I-world," magical action "would not be content with mere symbolic results: it aims at factual mastery, at influencing or determining the course of events" (Boesch, 1991, p. 230). "By empathy we learn to be in harmony with the world, confrontation lets us experience our vulnerability" (Boesch, 1983, p. 25; my transl.). "Mastering" our subject-object relations requires "being able to empathise as well as to master confrontation: a relation to objects that is, at the same time, in a versatile way empathic as well as outwitting and compelling" (ibid.; my transl.).

This is very similar to the argument of Worringer, when he writes:

Now what are the psychic presuppositions for the urge to abstraction? We must seek them in these peoples' feeling about the world, in their psychic attitude toward the cosmos. Whereas the precondition for the urge to empathy is a happy pantheistic relationship of confidence between man and the phenomena of the external world, the urge to abstraction is the outcome of a great inner unrest inspired in man by

the phenomena of the outside world. In a religious respect it corresponds to a strongly transcendental tinge to all notions (Worringer, 1997, p. 15).

Some lines later he adds (about those civilisations which did not follow the trend toward a rational and realistic world-view):

The happiness they sought from art did not consist in the possibility of projecting themselves into the things of the outer world, of enjoying themselves in them, but in the possibility of taking the individual thing of the external world out of its arbitrariness and seeming fortuitousness, of eternalising it by approximation to abstract forms and, in this manner, of finding a point a point of tranquillity and a refuge from appearances (ibid., p. 16).

Also in this argument we can find some remarkable parallels to what Boesch describes as the magic attitude. However, there also differences: Worringer conceives abstraction as an approximation to transcendental forms, and this is not reflected in the ideas of Boesch. It was Georg Lukács, who originally favoured Worringer's position but later on criticised Worringer's "ideology of escape" (*Fluchtideologie*) which suggests, as Lukács puts it, that the evolution of rationalism had repressed the instinctive anxiety of man but had revived some kind of "sensibility for the thing-in-itself" (*Ding an sich*; see Öhlschläger, 2007, p. 22 s.). This difference is due to the fact that Worringer's argumentation refers to the history of artistic styles while Boesch's interpretation is based on cross-cultural observations. Therefore, Worringer conceptualises the polarity as a polarity between empathy and abstraction while Boesch confronts empathic and magic attitudes: however – it is the same archetypical polarity that is in question.

I think this indicates that this polarity which has been independently conceptualised by Worringer and Boesch in different but similar wording at different times and in different circumstances, points to an essential approach to explain man's relation to the symbolic world we are living in. It also supports Öhlschläger's opinion that "the significance of Worringer's theory of abstraction goes far beyond historiography of art." She argues:

Here [sc. in this theory] a contemporary form of critic of culture is formulated, linking aesthetics, sociology and humanities and converging with the position of the early writings of Georg Lukács and his expression of a 'transcendental homelessness', with the position of Max Weber and his formula of the 'destruction of the mystique of the world' (*Entzauberung der Welt*), and finally with positions of Georg Simmel and even Walter Benjamin (Öhlschläger, 2007, p. 18 s.; my transl.).

In this context, Öhlschläger points to the fact that the spontaneous sympathy Georg Simmel felt for Worringer's thesis can be explained by his



apprehension that the growing complexity of modern life and in particular of the cities could be more and more incomprehensible for man. In a lecture on *The big cities and the intellectual life* (*Die Großstädte und das Geistesleben*) Simmel complains about an “overgrowth of objective culture” which reduces the individual to a *quantité négligeable* in relation to “a monstrous organisation of things and forces that eventually takes out of his hands every kind of progress, intellectuality, and values” (Simmel, 1903/1995, p. 129; my transl.; quot. from Öhlschläger, 2007, p. 15). This sentence indicates, in my opinion, that Worringer’s ideas chimed with the prevailing intellectual climate mood of that time and that it was not merely by chance that this essay proved so brilliantly successful.

Before I come to a conclusion about the fate of Worringer’s essay, let me briefly follow the further life of its author for a moment: After his *habilitation* in 1909, Worringer gave lectures at the Institute for the History of Art of the University of Bern. In 1925 he became associate professor for Art History in Bonn, where he stayed until 1928. Only in 1928, when he was 44, did he get a full professorship in Königsberg. Here he stayed until 1945 but did not publish anything after 1933 due to his resistance to the Nazi regime. In 1945 he moved to Halle but in 1950, at the age of almost seventy, he left the GDR for political reasons and spent the last 15 years of his life in Munich, where he died in 1965.

Although he published some other interesting writings in the course of his academic career, like *Formprobleme der Gotik* in 1911, or *Probleme der Gegenwartskunst* in 1948, none of his later publications reached popularity comparable to that of his dissertation. Although he was honoured by his colleagues by a *Festschrift* on the anniversary of his 60th birthday, he remained an outsider even in his own discipline. Thus, the success of his essay can neither be explained as the outcome of his genius nor – as he himself supposed – as a chain of fortunate circumstances. Mihály Csikszentmihályi (1997) suggested, in his theory of creativity, that creativity can neither be interpreted as a trait of an individual personality nor as a characteristic of a creative product but has to be defined by the fact that an idea or product is regarded as innovative for a certain domain by a certain cultural community. I think that *Abstraction and Empathy* is a good argument for this theory.

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... micro-environments.

From Itard to Montessori. A source of experimental pedagogy

*Giuseppe Annacontini**

1. Introduction

The history of human sciences is undisputedly made up of a succession of events which have characterised “great” sectors like philosophy, literature, psychology, pedagogy and so on. Beside these “great narrations,” there are also the more hidden but no less relevant stories – sometimes coincidental, sometimes predictable – of meetings between various human beings who in some way represent the world and construct knowledge. This is the case with the research and work of educational scholars and scientists who have made a significant contribution to the evolution of new ethical, professional and epistemological awareness and of methodology, thanks to their knowledge of how to promote and follow the fertile model of interdisciplinarity, with tangible effects in both these domains, which their genius has managed to blend, to bring together.

In this paper we have sought first to examine the ideas of Maria Montessori, which she herself recalled in some of her best known writings, and secondly to reconstruct some of the significant lines of continuity that link Montessori to Itard.¹ Itard became famous for his commitment in following the most difficult way to care for Victor, a child found years after being abandoned in the forest, that of education. This is the most illuminating example of how the time was now ripe for medicine and education to meet. Montessori, in recalling the meeting between Itard and the child, follows more or less explicitly the line of her famous predecessor and also of his closest pupil Edouard Séguin.

2. Re-reading Itard

Two fundamental steps in the direction of a new and profoundly renewed educative praxis were Itard's educative project and the subsequent work by

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From Itard to Montessori. A source of experimental pedagogy

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Séguin. They are based on the evolution of the representation of the mental minority, of cultural disadvantage, of the difficulties in the cognitive development process and in the same idea of educator and pedagogical action.

The influence of these two educationalists was not limited to their lifetimes but reasserted itself in the twentieth century when Maria Montessori (1870-1952) re-read their works and drew on their scientific, medical and educational ideas. She was the first female medical graduate in Italy, as well as an important physician and educationalist. Her methodology was, on the one hand, profoundly influenced by Séguin's new ideas for educating his "idiots"; indeed, she felt that it was her duty to go to Rue de Pigalle, where Séguin had established his first "school for idiots." On the other hand, she always recalled his work and acknowledged her cultural debts to him and promoted Itard's educationalist beliefs.

Montessori wrote of her deep admiration for Itard, which went beyond the simple professional dimension. Indeed, her writings not only recalled Itard's research, thus bringing to an end the silence which had surrounded him for a century, but also expressed great enthusiasm and feeling for the inventor of the "first tests of experimental pedagogy" (Montessori, 2000²).

It is worth pointing out that when talking about Itard's work she used the term "experimental psychology" (in the first edition of *Method* dated 1909) and then "experimental pedagogy/education" (in the fifth edition published in 1950). This shift in terminology demonstrates the analytical refinements that distinguished Montessori's reading of Itard and allowed her to understand the educationally experimental dimension of the whole process of caring for and bringing up Victor.

For her, this analytical refinement was accompanied by a complete and mature extended vision of handicap and of deficit, the cure of which includes organic-sensorial-motor dimensions as well as linguistic-communicative-interactive ones, in line with what we might now call an "ecological approach." This approach is not limited to only analysing therapeutic-rehabilitative action, but evaluates the results in broader terms of both active adaptation of the subject to the more complex mental and social life, and his recovery. The problem of deficit is, therefore, considered from the viewpoint of an integration between the cognitive dimension and an emotional one and in relation to the specificity of the educational environment, as well as of its precise pedagogic-didactic design and organisation, devised and created according to the specificity of the individual subjectivities.³

3. The principles of a "new education"

This methodological position concerns the importance that Maria Montessori gave to the quality of the environment in the teaching-learning processes, for which "society" (which is defined not so much as the "work" of human action, but as its specific "habitat") assumes the features of a macro-

environment where there are also educational micro-environments. According to this interpretation, they are micro and macro-environments which perform an essential role because they are determining variables for any intentional action with educational-transformative purposes.

In her work of recovering and actuating the specific complex dimension of the subject being trained and of organising the communication contexts in which it takes place – the “Casa dei Bambini” – Montessori considered the “educative drama” of Victor as being the story of a progressive “enabling” of an individual to operate in society (and thus of the development of the capacities of integrating and interacting).

Thus the question of the wild boy of Aveyron was loaded with further meanings which were until then unknown, and became a new paradigm of daily educational action.

We are of the opinion that Montessori may have discovered the essential role a specific pedagogical action characterising the meeting with Victor not only through the relational process with Itard but more precisely through the reflections that Itard himself made when his interventions led to nothing. The unique relationship between Itard and Victor does not actually lie so much in the total nature of the educative event, but in the profound human attention paid to it. This attention allows us to consider the recovery process of functions for “an idiot” as a real educative intervention of caring. In this perspective we can read and give some sense to the apparent contradictions between the intense pessimism of some of Itard’s words and the significant progress of Victor’s abilities.

Montessori’s re-reading of Itard’s work is thus not limited to these admittedly important aspects, but it is also important to mention at least one other epistemological similarity between the two physicians and educationalists. Montessori, like the 18th century physicians of the early human sciences, had to choose among a medical, a moral and a medical-moral approach:

The fact that pedagogy must join with medicine in the treatment of disease was the practical outcome of the thought of the time. And because of this tendency the method of treating disease by gymnastics became widely popular. I, however, differed from my colleagues in that I felt that mental deficiency presented chiefly a pedagogical, rather than mainly a medical, problem (Montessori, 2000, p. 113).

In this way Montessori took up and enriched the educationalist beliefs of Itard and Séguin, the two precursors of authentically pedagogical medicine.

The years Maria Montessori dedicated to teaching “half-witted children” helped to define her educational beliefs and basically opened the way to new perceptions of physical, mental and social handicaps, which are still prevalent today.

First of all, in Montessori’s view the handicap situation defines and offers

the opportunity of experimenting with specific and customised teaching techniques which may foreshadow the development of "normal" didactics.

Secondly, the opinion that using specially coded teaching strategies makes it possible to re-assert the dignity of the individual with learning difficulties or, in other words, makes it possible to respect differences and, at the same time, to affirm the equality of the right to life, to education and to schooling, as well as democracy and equity, values which are all based on the same educational action.

Finally, she believed in the importance of ensuring all boys and girls (whether they are handicapped or not) development-learning-education programmes which stimulate and draw out the enormous potential – which often remains unexpressed if not depressed and mortified⁴ – of each.

Montessori's work was, therefore, cultural as well as scientific. Her re-reading of Itard and Séguin provided an opportunity to define "a new education," which is individualised, rationalised, methodical and universal (Montessori, 2000, p. 115f).

As is well known, Montessori prepared a great variety of structured teaching material for this new education, to work on with her pupils, who, alone, would not have been enough to realise it. In fact, the book not only includes observations regarding the method itself, but also some more important pages on the education of children with physical and mental handicaps, which highlights the need for "marvellous," but "excellent" tools only to be used by "those who know how to use them." This excellence is achieved by integrating the use of materials and mindful educative, scientific and human skill, capable of defending the educator, in moments of delusion and discomfort, from the apparent uselessness of his or her intervention and thus of motivating and re-motivating him or her to a difficult task which becomes extraordinary when it awakens "the man who lies dormant within the soul of the child."⁵

4. The "conquerors of tired souls"

Behind that "who knew how to use them" there lies a profound criticism of, on the one hand, the training of the educators and, on the other, of the research approach performed by human sciences (in general) and by pedagogy (in particular). Specifically, in the second case, criticism is directed at the trust put in methods and instruments deriving from a reductively technical-scientific approach which systematically ignores the pedagogical and didactical complexity characterising each educative action. Although they may be precise and specific, it would be misguided to entrust the job of training an individual to anthropometric and psychometric instruments or to mental tests. Investigations show that these have a certain specific explorative and diagnostic utility but not a transformative, and thus educative, value.

It is Montessori's problem of distinguishing the "scientific psychology"

from "scientific pedagogy," that is to consider the diagnostic instruments but to stop at them to reach a true educative intervention that requires other pedagogical, methodological and relational skills because it is "transformative."⁶ Professional skill and the structuring of suitable materials are, therefore, shown to be essential before the pedagogical thinking-acting, although alone it is not the determining factor.

The details of the *Method* reported above actually allow us to highlight another cornerstone of Montessori's educationalist views. In defining the professional profile of the Montessorian educator, it is essential for the technical-professional and the ethical-human dimensions to integrate appropriately. Only in this way is it possible to intervene to "re-awaken" not only the spirit of the individual undergoing training, but also that of the teacher himself. It is essential for educators not to underestimate the ever-present potential for development in children in difficult situations in order to face up to the daily difficulties avoiding "apathy" or even worse "ridiculous" educative proposals.

Montessori calls these education professionals "conquerors of tired souls," a definition which not only involves the metaphorical evocation of a particular model to use for delineating a specific educative professionalism (the conqueror must possess the knowledge of the most suitable strategies to reach his objective), but also acknowledges the dignity of the individual being educated and that, in addition to intellectual, cognitive and/or social difficulties connected to particular personal conditions and/or contexts of life, he/she experiences a state of "psychic depression" resulting from abandonment, lack of stimulation and neglect of his/her "soul." The task of the educator, she believed, was to find a means of redemption and ways of overcoming the difficulties and drawbacks which make conquering and reawakening more difficult.

By following this route, Maria Montessori managed to obtain results which "seemed almost miraculous to those who saw them" (Montessori, 2000, p. 122), but to her were nothing but the logical outcome of the precise application of a theoretically well-grounded and, most importantly, humanised educative system.

The question to ask for Montessori was, therefore, not "How did children with deficits achieve results like normal children?" but "How come healthy children did not develop qualitatively superior capacities and attitudes to children with often severe impairments?" What was "exceptional," then, was not the recovery of children with difficulties but, paradoxically, the systematic "depression" of so-called normal children, the deplorable waste of their rich cognitive potential.

Montessori's observations were accompanied by a systematic critical analysis of the whole contemporary educative system and a further profound process of renewal. Guided by an imaginative attitude to scientific research, she asked herself: if it was possible to achieve so much satisfaction and so much success according to "humanitarian" (contact between the souls) and

“pedagogic scientific” (planning the transformation action) principles with subjects in difficulty. What could have been expected if the same instruments had been used with “normal” young people?

The know-how acquired from experience with the “weakest” subjects, if applied appropriately to so-called normal children, made it possible, it seemed to Montessori, to make all children “better people”: This project was based on the possibility of determining and customising the teaching in order to act in a transformative-evolutional manner, using the same process as the one already recommended by Itard and Séguin.

5. “A forest of lost people”

The characters in the Montessorian “new pedagogy” are in many ways summarised in the following extract from the fifth edition of the *Method*:

[when we took around the first group of children taken into San Lorenzo, they] cried and seemed to be frightened of everything [...]. They were like a group of wild children. They had certainly not lived like the savage boy of Aveyron, in a wood with animals, but in a forest with lost people beyond the confines of civil society (ibid., p. 131).

Here Montessori uses a simile which goes well beyond a simple comparison of the state of behavioural maladjustment of Victor with that of her young pupils in San Lorenzo. The force of the words of the woman who established the Children’s House lies in their clear indication that ones (not only “savage” but also “civil”) environment leaves its mark on every individual, configuring it, in good and in evil, and constituting an essential factor in the educative process.

While there were no concerns regarding the physical health of the children of San Lorenzo, their communicative, socialisation, adaptive capacities were so severely affected that in other situations, a specific mental pathology would have been diagnosed (like for Victor).

In comparing Victor with children growing up in deprived environments – like many of the working class neighbourhoods in which she established her first Children’s Houses – Montessori used a metaphor which resonates with the contemporary metropolitan imagination: the idea of the city as a “forest,” a dangerous place, of the daily struggle for individual and social survival, no less dangerous than the real Caune forest in which the “savage boy” was found.

This brief but significant parallel is particularly suited to recall a further linchpin of the Montessorian interpretation of educative and pedagogical action which, as Montessori herself explains, is based on an integration or rather a “compromise” between *nature and culture*, until we have the taste of the sacrifice of the “natural liberty” of the child.

Montessori’s reading of Victor’s story in fact emphasises the inherently

"sacrificial" nature of educative action (which particularly emerges with great evidence in the "lyrical pauses"⁷ of Itard's writings).

"It is true that civil life is a renunciation of natural life; it is almost ripping man from the womb of the earth, similar to ripping the newly born from their mother's breast: but it is also a new life" (ibid., p. 302).

This is what Maria Montessori wrote, highlighting how in the evolution of the single man the sacrifice is a universal one.

Whether it concerns a little savage, an underprivileged young person or a mentally incapable boy, or children who grow up in potentially criminal environments, or on the contrary those who have the opportunity of growing up in a healthy environment, education oscillates between the extremes of "natural happiness" and "civil and spiritual elevation."

Montessori wrote: "It is an obvious principle that we should sacrifice to natural liberties in education only as much as is necessary for the acquisition of the greater pleasures which are offered by civilisation without useless sacrifices" (ibid., p. 304).

It is the recurring antinomy between nature and culture, creativity and rules which the psychological-evolutional interpretation corresponds to today as an open, dynamic, inconclusive process, articulated by traumatic events (birth, weaning, first steps, language and so on).

However, this does not mean to say that these two worlds are "in conflict" or even worse "irreconcilable." As previously mentioned, society is a product of man (indeed, according to Montessori, "the" product of man *par excellence*, since society has become its own environment) in which it is possible to integrate "love for nature with love for man." In this sense, society is an effective manifestation of the same "natural activities" with which it may only seem to be in opposition but together they are actually the supreme example of how much the single individual and the human kind can realise.

From this viewpoint, the acknowledgement of the personality of the child, and the respect for and enhancement of his or her propensity to commitment and autonomy that Montessori has so strenuously and humanely insisted upon, appears to be the best way towards a more human and better society for everybody.

Education, on the other hand, is an instrument by means of which the humble can be elevated to a social dignity which allows active participation in community life.⁸ It is with this awareness that contemporary pedagogy, still operates today to organise and guarantee its own knowledge and its own action, open to ideas, discipline, heterogeneous contributions, guided by the ideal of promoting life and human development.

An educative relation which bears the characters of pedagogical care for the outcome of the individual in the awareness that, in the ecosystemic growth and development of man growth, he has the possibility of overcoming the implicit conditioning of the environment in which he lives regarding the statement of his own freedom of self-realisation.

Montessori's experience, her critical and reflexive contribution

straddling the different medical and pedagogical souls, the methodological mediation and articulation between these souls in an emancipative direction, have deeply contributed and still contribute to defining the pedagogical responsibilities of the educators towards the possibilities of the complete realisation of a man different from today, a man projected in the utopic realisation of his own knowing how to be.

Montessori herself wrote (and it is difficult to imagine more profound or more convincing words):

I have spent my life performing research on human development. I have studied the nature of man from its origins, studying children, in the West and in the East. Although I have dedicated more than forty years of my life to this work, childhood still seems to be an inexhaustible source of information and, let me say it, of hope [...]. I strongly feel that there is a [...] field to explore [...]: the study of man. But not of the adult to whom all my appeals are launched, and that in the decline of the ideas they remain tricked confused and in the brief course of their life, they throw themselves one side and then the other [...]. I feel that we should try something else. Instead of trying to eliminate the differences between men, we should try to cultivate what they have in common (Montessori, 2002, pp. 129-130).

NOTES

- 1 There are many of these, if one is to judge by how easy it is to find petitions, principles, values and strategies which revive the suggestions and the theories of authors like Comenio, Claparède, Herbart. Indeed, "by using the children's house as a 'laboratory', from 1907 onwards, Montessori gave her project a form, by mixing her own ideas with those of others, like Rousseau, Pestalozzi, Froebel, Wundt, Itard and Séguin" (Schwergman, 1999, p. 74).
- 2 It refers to the critical edition of the original text and the subsequent reeditions published after years of study edited by the "Istituto Superiore di Ricerca e Formazione dell'Opera Nazionale Montessori."
- 3 This – wrote Cives – "is a Montessori not only of great severity, penetration and clear scientific investigation, [...] but also committed to a significant passage from anthropometry to social and didactic pedagogy. Where beside the old emerges the new and, through admirable intuitions and revolutions, she already prepares the construction of a real educational system transformed, as she would later say, for the construction of the 'new man' for the 'new world'" (Cives, 2001, pp. 36-42).
- 4 It is worthwhile pointing out that Montessori held "disparate opinions, including a positivist empiric view that observation is essential, and a view, which we may define as being of neoplatonic-agostinian derivation, that [...] the spirit (the theory) already exists and determines the action on the real (praxis). From this derives a sort of 'spiritual experimentalism' in which attention to the real element – whose reality riding on the crest of positivism, Montessori never doubts – is reflected in a solid and preexisting spiritual dimension centred primarily on the image of a unitary cosmic principle" (Bellatalla, Genovesi, 2006, pp. 246-247).
- 5 "In the hands of those who knew how to apply them – wrote Montessori – these materials became a most remarkable and efficient means, but unless rightly presented,

they failed to attract the attention of the deficient. I felt that I understood the discouragement of those working with feeble-minded children, and could see why they had, in so many cases, abandoned the method. The conviction that the educator must place himself on a level with the individual who is to be educated, plunges the teacher of deficient into a form of apathy. He accepts the fact that he is educating an inferior personality, and for that very reason he does not succeed. Even so, those who teach small children too often have the idea that they are educating babies and seek to place themselves on the child's level by approaching him with games, and often with foolish stories. Instead of all this, we must learn how to call to the man who lies dormant within the soul of the child" (Montessori, 2000, pp. 119-120).

- 6 "As we can see, the intent is even more clearly pedagogical and pedagogical anthropology is now only restricted to providing a favourable base. [...] observation penetrates directly into the emancipating and formative action, hygiene into education, anthropology into pedagogy. Pedagogical anthropology, operating with scientific spirit, has thus led to intend the physiological and psychological reality of the student, actively involving the educator and has guided them to perform their transforming educative action" (Cives, 2001, pp. 80-81).
- 7 The reported extract from Itard's account is particularly interesting as well as absolutely exhaustive: "I put the blindfold back on his eyes and he started laughing again. So I tried to intimidate him with more energetic means, as a stern look was no longer sufficient. I took one of the drum sticks which we used for our experiments and I gave him a light rap on the fingers when he got it wrong. But he considered this punishment a sort of joke and his manifestations of joy became even noisier. In order to undeceive him, I thought it would be necessary to make the punishment a little more energetic. He understood me and it was not without a mixture of pain and pleasure that I saw in the frowning face of the young man just how much the feeling of indignity prevailed over the physical pain caused by the blow. Tears were flowing under the blindfold and I quickly went to take it off but maybe for embarrassment or fear, although he was no longer blindfolded, he kept his eyes closed. It is impossible to describe the painful expression that the closed eyelids from which every so often tears fell, gave his face. At that moment, also like in many others, ready to renounce the job I had set myself, I considered the time I had dedicated a waste and I felt sorry for having known that boy and I bitterly condemned the sterile and inhumane curiosity of the men who had first taken him from an innocent and happy life!" (Itard, 1986, pp. 93-94).
- 8 Remo Fornaca highlighted how Montessori's was a "mainly successful attempt, amidst great difficulty, to give space to childhood in real terms of right to education, schooling, teaching, independence and comparison with others" (Fornaca, 1978, p. 33).

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The oldest organization for psychology in the Netherlands: a shared first place

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1. Introduction

One of the oldest branches of psychology is the so-called psychology of religion, but only relatively little has been published on its history. The subject is probably too broad to be discussed in any single historical work: every major psychological theory has made contributions to the psychology of religion, and moreover its history has tended to be quite different in different countries. In the Netherlands in particular that history departs considerably from the existing general picture of the psychology of religion. That general picture goes back to an article published in 1974 by Beit-Hallahmi in this journal, where Beit-Hallahmi alleged that the history of 'the' psychology of religion is one of sudden early emergence, brief existence and rapid decline. According to him, the psychology of religion arose in around 1880, had passed its apex by the second decade of the twentieth century and was entirely eclipsed after 1930. This unambiguous appraisal is splendidly summarized in the subtitle of his article: *The rise and fall of a psychological movement* (Beit-Hallahmi, 1974). In the absence of any other historical studies on the psychology of religion, Beit-Hallahmi's presentation of things has been rather frequently quoted, even by psychologists of religion.

As noted, the picture in the Netherlands is quite different from the one sketched by Beit-Hallahmi. It can even be said that the history of the psychology of religion in this country has gone in exactly the opposite direction. In the Netherlands, the psychology of religion was a late 'discovery' (it was not definitively acknowledged until 1907, as I shall show shortly) and it was also a late bloomer. In the second half of its first hundred years in this country, however – beginning with the appointment in 1956 of H. Fortmann (1912–1970) to the first Dutch professorial chair in the subject at the Roman Catholic University in Nijmegen – it actually became established in academia to such a remarkable degree that one century after its introduction more chairs and other tenure academic positions in the subject were available in the

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Netherlands than anywhere else in the world. This is a remarkable development, well worth considering as it may – along with evidence on the situation in other countries – lead to the need to adapt the received view of the history of the psychology of religion.

It is striking that the growth of the psychology of religion in the Netherlands occurred so late. After all, the Netherlands was a very religious country (it is not for nothing that the country was spoken of as “Nederland, domineeland” – “the Netherlands, clergy land”), and even before the so-called pillarization was¹ complete, various attempts were being made by people from orthodox quarters to develop a psychology “based on special (i.e. religious) principles.” Despite the fact that interest was clearly being voiced within the religious community and the church in the recent development of empirical psychology in general (albeit often in the form of suspicion), it would take decades before the first actual Dutch contribution to (as distinct from *reviews of*) the psychology of religion would be published. Yet an organization for this sub-discipline did exist in the Netherlands, and apparently it functioned quite well for several years (in any case better than foreign sister organizations from the same period) and even organized the world’s first international congress for the psychology of religion. Moreover, this ‘Godsdienstpsychologische Studievereeniging’ (Study Association for the Psychology of Religion; henceforth: GPSV) just missed going down in history as the oldest organization for psychology of any variety in the Netherlands!² Its existence has passed almost completely into oblivion, however, and it deserves to be rescued from such a fate.

At this point, however, a few critical-sounding historical questions can already be asked on the basis of the small amount of available information: 1. Does the Dutch situation represent an anomaly, or even a falsification, with respect to the development of the history of the psychology of religion as described by Beit-Hallahmi? 2. Was the existence of the GPSV something of an odd man out in the realm of Dutch psychology? 3. Does the existence of the GPSV perhaps represent an anomaly with respect to the more general situation of the psychology of religion in the Netherlands?

To answer these questions, however, we first ought to take a closer look at the context, the emergence and the activities of the GPSV. It will become apparent that the entire evolution of the psychology of religion in the Netherlands, including the existence of the GPSV, is a typical example of the problem of making sweeping statements in historiography – they conceal more than they clarify – and that priority should be given first and foremost to carefully extracting the retrievable research material and making it available. Whether the interpretation of that data will still permit the use of such a convenient framework as ‘rise and fall’ à la Beit-Hallahmi remains to be seen.

2. A century of the psychology of religion in the Netherlands

By 2007 the psychology of religion will have been fully recognized in the Netherlands for one hundred years. It sounds like a rather laborious way of stating it, and it is. As usual, historical reality cannot be expressed in a simple formula: the introduction of the psychology of religion in this country actually traveled by way of entirely different channels. To make a long story short: in 1905 the first article on the psychology of religion appeared (De Graaf, 1905), in 1907 it was presented during a maiden speech for the Royal Dutch Academy of Sciences (Bavinck, 1909), while in that same year the psychology of religion's bestseller appeared on the Dutch market (James, 1902/1907). Which of these events was the most prominent? The article by theologian-psychologist Hannes T. de Graaf (1875–1930) was published in a liberal religious journal with a small circulation, De Graaf was still unknown (it was only much later that he would become a leader of the liberal protestants), and the article was soon completely forgotten (it is not mentioned in the reviews by Cremer, 1934, and by Ter Meulen, 1988, for example). Hermann Bavinck (1854–1921) was a widely respected professor of theology at the Free University (Vrije Universiteit; VU), but his speech was attended by only 38 persons³ and its publication two years later will not have reached a very large audience either. (The dissertation written by his student J. G. Geelkerken [1879–1960] in 1909 on the psychology of religion attracted much more attention, cf. Belzen, 2001a). With the translation of *The varieties of religious experience* by the well-known American philosopher-psychologist William James (1842–1910), a book that quickly gained fame both at home and abroad, a specimen of a certain form of the 'new science' (Bavinck, 1909) became available to a broad public. But was it being widely read in the Netherlands at that time? Whatever the answer, it can be said that by 1907 the psychology of religion must have been 'fully' recognized among those who will have been interested in such a topic.

1907 seems late, and it is – certainly in comparison with other countries. It must be understood, however, that psychology in any form was a late development in the Netherlands. Among the 'fore-runners' of psychology in the Netherlands, the only name that crops up is that of the Utrecht ophthalmologist Franciscus C. Donders (1818–1889), one of the first to conduct experiments in perception, while Gerard Heymans (1857–1930) is the only such person from the early twentieth century to be known and remembered. (Heymans was appointed professor of the history of philosophy, logic, metaphysics and 'zielkunde' [English: 'science of the soul', i.e. psychology], in Groningen in 1890). It was not possible to study psychology in the Netherlands as an upper-level subject until the academic statute of 1921, and then only after earning a lower-level academic degree in another discipline. The establishment of independent chairs in psychology occurred after this date; it would not be until just before WW II that such chairs were in place at all Dutch universities (Eisenga, 1978).

For decades, the literature on the psychology of religion issuing from the Netherlands continued to be more or less critical discussions of contributions to the field made by scholars other than the authors themselves. A first original and even repeatedly translated contribution was the well-known study *Karakter en aanleg in verband met het ongeloof* (Character and temperament with regard to unbelief) by the psychologist-psychiatrist H. C. Rümke (1893-1967) as late as 1939. The obvious question is: how could an organization for the psychology of religion emerge in such a climate, even before other areas of psychology were developed?

3. On the founding of the Study Association for the Psychology of Religion

The plan to found a study association for the psychology of religion most probably originated in the mind of the psychiatrist and theologian Johan van der Spek (1886-1982). Van der Spek was a great instigator and organizer of many things having to do with psychology and related fields in the Netherlands (such as psychiatry and mental health). From his own brief report (Van der Spek, 1978, p. 95) as well as from the letters that have been recovered, it is evident that the initiative was on the side of Van der Spek, but that he had been looking for partners with some respect and reputation. Van der Spek, at that time relatively unknown in the Netherlands and still working on his doctorate, was probably looking for an ally who might support him by backing his undertaking with some authority. In the spring of 1920 a circular went out to a number of Dutch academics whom it was assumed might be interested in an association for the psychology of religion. The circular was signed by H. Bavinck, L. Bouman, J. G. Geelkerken, P. Kohnstamm, J. van der Spek and H. Visscher. Who were they?

Bavinck was a professor of systematic theology at the Calvinist University in Amsterdam. He was one of the very first to publish on the psychology of religion in the Netherlands. He was clearly interested in the subject, but also very skeptical: he feared psychology of religion would lead to atheism. Geelkerken was one of his students, who defended in 1909 a brilliant dissertation on the early psychology of religion in the USA. Like them, Visscher (1864-1947) was a theologian. Bouman (1869-1936) had been appointed professor of psychiatry, neurology and theoretical biology at the Free University. He was one of the first psychological psychiatrists in the Netherlands; for the very reason that he – for religious reasons – was searching for a psychiatry that could do justice to the biblical concept of 'the soul', he was open to psychological approaches (Belzen, 1989). Finally, Kohnstamm (1875-1951) was born of Jewish parents, but he converted to Christianity later in his life. Educated as a physicist (the discipline in which he held his first academic appointment at the University of Amsterdam), he shifted his attention more and more to religious and philosophical questions and to disciplines such as philosophy and pedagogy.

At the inaugural meeting in Utrecht (April 29, 1920), Van der Spek made some introductory remarks in which he explained what the psychology of religion is and in what fields it might be of interest, and he called on his audience to form what he imagined to be a study association (Van der Spek, 1922-23a). His sketch of a program contained the following: two annual meetings would be held, with 'only one problem' to be put on the agenda of each meeting. That problem, however, would be discussed from many different angles. The speakers would send an abridged version of their argument to the members one month in advance so they could be incorporated into the particular theme. The meeting would consist mainly of discussion. And the activities of the GPSV would not have to be limited to scholarly meetings such as this. In smaller groups, questionnaires could be developed and administered and the results elaborated. Each member would have the opportunity to analyze a prominent Dutch person in terms of his biography and additional information in the light of viewpoints that were relevant for the psychology of religion.

What Van der Spek had in mind was quite a program. He had probably been inspired by what he had learned about a similar organization in Germany. As often happens with these kinds of initiatives, however, it is very doubtful that everything proceeded as it had been so enthusiastically envisioned at the first meeting. A number of meetings have been held however, and some of the lectures given there were published (cf. coming soon).

During the inaugural meeting, an attempt was made at this meeting to see to it that the various schools of Dutch Protestantism were represented on the board. (Perhaps also to prevent each of these schools from founding, in the high days of pillarization, their own respective organizations for the psychology of religion.) While the initiators were orthodox Calvinists for the most part, after 22 October 1922 the board consisted of Bouman as chairman, Geelkerken as secretary, K. H. Roessingh (1886-1925, a well known liberal professor of theology at Leiden) as second chairman, Van der Spek as librarian and A. Adriani, an otherwise unknown clergyman from Utrecht, as treasurer. Interestingly, Catholics were entirely absent from the association membership, nor had they been invited to join. In all probability, those who were invited were assumed to be interested in the psychology of religion and willing to participate in such a confessionally diverse organization. Perhaps Protestants were of the opinion that Catholics did not fit such a description? Among Catholics, there was indeed hardly any interest in the psychology of religion in those days, as there was in general much distrust of any 'empirical' psychology among them (Belzen, 2007).⁴ Most probably the gap between Protestants and Catholics in those days was just too deep to even try to collaborate formally in one organization for psychology of religion? Most of those who were invited to join were liberal Protestants (such as Roessingh), a large number of whom did become members, while R. Miedema (1886-1954), editor of the liberal publication *Ons Godsdienstonderwijs: Orgaan van de Commissie tot Organisatie van het Godsdienstonderwijs* (Our Religious Edu-

cation: Organ of the Committee for the Organization of Religious Education), opened the columns of his journal to publications from the GPSV and also provided at least one paper for this forum himself. As even those within the organization who remained members of conservative Calvinist churches were known to stick to rather tolerant religious views, the entire enterprise must have had a 'liberal ring' in the perception of many observers, especially of Catholics.

4. The activities of the Study Association for the Psychology of Religion

The following table contains an overview of the meetings organized by the GPSV:

No.	Date	theme/speakers (including publication, when possible)
I	29-4-1920	Inaugural meeting
II	28-10-1920	Buytendijk: The biogenetic law Brouwer: The religious-psychological development of the animistic peoples who converted to Christianity Gunning: The religious-psychological development of the child
III	28-4-1921	Geelkerken: Overview of the psychology of religion De Graaf: The limits and the meaning of religion, for the purpose of a plan of study
IV	13-10-1921	Van der Spek: The psychology of the religious life of young factory workers
V	18-5-1922	Miedema: The psychology of wordless prayer
VI	6-12-1922	Heiler: The psychology of mysticism
VII	17-5-1923	Berkelbach van der Sprenkel: Fear and love as religious motives Klootsema: Awareness of sin in adolescence
VIII	25-10-1923	Bouman: Changes in contemporary psychology Gunning: Psychology of old age
IX	22-5-1924	Van der Spek: The psychology of old age Van Holk: The psychological meaning of the liturgical endeavour
X	23-10-1924	Stegenga: Doubt as a psychological phenomenon in the religious life Rümke: Happiness and religious experience
XI	25-6-1925	Kohnstamm: The meaning of structural psychology for the psychology of religion
XII		
XIII	13-9-1926	Thouless: The function of the religious attitude Janet: L'extase religieuse Leuba: Mystical ecstasy and the impression of revelation

Nothing is known about the twelfth meeting mentioned in the above outline. It is not even clear whether a twelfth meeting ever took place: in the 'provisional announcement' of the meeting in 1926, the meeting with foreign speakers is indicated as the twelfth. This 'provisional announcement' was from 16 August 1926. The later definitive 'invitation' (divided into convocation and introduction; it was possible to introduce one or more persons during the scholarly part of the gathering at all meetings) is from 2 September 1926 and speaks of the '13th meeting'. As a more recent (and perhaps corrected?) announcement, the preference was given to this event in this reconstruction of activities. A great deal has been discovered with regard to this twelfth or thirteenth meeting, however, and it is certainly worth sharing.

5. The first international meeting exclusively for the psychology of religion

This meeting in 1926 was quite an extraordinary event, for which a number of famous foreign psychologists of religion had been engaged. It was occasioned by the international congress of psychology in Groningen. There, too, the psychology of religion played a prominent role in the program: the second symposium was dedicated to this sub-discipline (Heymans, 1927). The chairman of the international congress, Heymans, wrote to several psychologists of religion to ask if they would be willing to make a contribution to the symposium. Unfortunately there is not enough space here to dwell on his correspondence on this subject.

It is not known whose idea it was to invite those who were speaking on the psychology of religion at the international congress in Groningen to also appear at a study day organized by the GPSV. It could easily have been Van der Spek (once again). It could also have been the chairman of the GPSV, Bouman, of course (who was a member of the national committee for the Groningen congress as well), but that remains in doubt: in general, Bouman did not have very much to do with the psychology of religion. He thought the psychology of religion was actually something for theologians, not for psychiatrists (who were physicians above all, in his estimation).

6. Conclusions

In the introductory section a few questions were raised. These should be stated more precisely and then answered, although not all to the same degree of detail. First I will briefly deal with the question whether and to what extent the Dutch situation is a falsification with regard to Beit-Hallahmi's outline of the 'rise and fall' of the psychology of religion. In a nutshell: Beit-Hallahmi's impression is flawed! It is true that he was able to get his outline published in a leading scholarly journal of history of the human sciences

(which is probably the reason that it became so well known), and that it has also been quoted by many psychologists of religion. Yet all the latter suggests is that many of these psychologists lack knowledge of the history of their discipline (something that does not apply to the psychology of religion alone, of course). The Dutch psychology of religion, with its remarkable growth in the period after the Second World War, is not only an anomaly with regard to Beit-Hallahmi's outline but one of its outright falsifications as well: it shows that his presentation, as has already been shown for Europe in general and even for the USA, is flawed.

Second: to what extent was the existence of the GPSV an odd man out in the Dutch psychology of that time? This question can be broken down into two finer points: 2.1. to what extent was the existence of *an organization* like the GPSV as such an odd man out, and 2.2. to what extent was the existence of an organization *for the psychology of religion* an odd man out within the realm of Dutch psychology? The question 2.1. can be answered briefly: the existence of an organization like the GPSV was not odd at all. In what unfortunately is the only complete overview so far of Dutch psychology, Eisenga has already stated that at the beginning of the 20th century no framework or organization for psychology existed (and neither did much of them exist elsewhere in Europe). It was mainly an assortment of small, sometimes merely local organizations or societies that attempted to put psychology on the scientific map. Throughout the thirties, the universities would gradually play an important role in this area, when chairs in psychology were established almost everywhere (Eisenga, 1978, pp. 66-70). Among the variety of other organizations that had shorter or longer life spans, an initiative like the founding of the GPSV was not odd; rather, it illustrates the heterogeneous, pioneering character of psychology at that time.

In answering question 2.2., we have to be on our guard against anachronism. For present-day psychology in the Netherlands, it *would* perhaps be odd if an organization for the psychology of religion were to be founded, but that is not really saying very much. First of all, within the largest organization for psychology in the world, the American Psychological Association, there is a large division for the psychology of religion. The existence of something like this in the US and not in the Netherlands (or elsewhere in Europe) says more about the contexts within which psychology functions in those countries than about psychology itself. As may be considered well known, processes of secularization and apostasy have been much more radical in Europe than in the USA. Although on both continents psychologists belong to the most secularized academics, professional attention to religion and religiosity is far greater among US-psychologists than among European psychologists. (An organization like the American Psychological Association publishing books on religion and spirituality is quite unthinkable in Europe.) Second, it should be remembered that psychology (naturally psychology is more multiform than the use of this one broad term suggests) was initially not practiced by persons who had studied psychology but by academics who had been trained

in other areas. As was the case with psychology in general in the Netherlands, a wide variety of disciplines were represented in the membership of the GPSV. Most present day psychologists are quite aware that the history and prehistory of psychology lies in philosophy and physiology. The fact that physicians, especially psychiatrists, of course (who until a few generations ago were called 'zenuwartsen', physicians of the nerves), became interested and involved in psychology is less well known, yet it will not surprise them. But the fact that theologians made an appearance in its history is something that psychologists usually prefer not to hear from scientific historians. Yet the appearance of theologians among the early psychologists is not as odd as a present-day psychologists (and many others in the Netherlands for that matter) might think: after all, theologians dealt not only with 'God' or the history of Christianity, but also with the 'soul', an entity that has always been the object of many discussions in almost all religious traditions. When something calling itself 'modern' and 'empirical' psychology came along, it was hardly surprising that theologians would be interested in it – sometimes suspiciously, sometimes favorably. There were even theologians who became psychologists, and a few of them never had any more to do with theology or religion.⁵ The total collection of the sometimes overlapping circles of psychology, psychiatry, theology, anthropology, religion, philosophy, and more, forms an enormous area within which the psychology of religion is only a small part – a part to which all the founders from the various forms of psychology have contributed, however (for an overview, cf. Wulff, 1997). As already stated in the introduction, it is more surprising that the psychology of religion was taken up at such a late stage in the Netherlands than that an organization for the psychology of religion was founded at all.

The third question from the introduction ('Does the existence of the GPSV perhaps represent an anomaly with respect to the more general situation of the psychology of religion in the Netherlands?') needs to be approached with the most caution. In principle, however, the answer should be affirmative: it is quite remarkable that an organization like the GPSV has been able to function in the Netherlands. As noted before, in no other country was such an organization known in those days. Only one similar organization had been founded earlier elsewhere (in Germany), but it functioned poorly and soon became defunct. So in that sense the GPSV was unique within the international psychology of religion of the day. We must be careful not to overestimate its importance, however: it remained almost completely unknown beyond the Dutch borders, and the fact that it organized the first international gathering for the psychology of religion – without realizing it at the time! – was actually a coincidence: it was not much more than a follow up on the International Congress of Psychology that was being held in Groningen in 1926. If it is remembered what a minor part the psychology of religion played in the Netherlands before the Second World War, however, then the functioning of the GPSV was indeed something special: it signified a combining of forces, even transcending the pillarized

segregation between religiously different parts of the nation, it arranged several meetings of an international character and it was well-organized as a whole. On the other hand, the way it functioned illustrates the character of the psychology of religion in the Netherlands as such at the time: although all sorts of plans were made at the inaugural meeting, including plans to embark on research projects, most of them were never realized. The meetings of the GPSV were not very heavily attended and the society gives the impression of mainly having been dependent on the 'casual' interest and energy of Van der Spek. This means there is little difference between the character of the GPSV and that of the psychology of religion in the Netherlands as a whole during the first half of its century in the Netherlands: occasionally someone with genuine interest appeared, but he usually did not have the means available to develop any real activity in the field of the psychology of religion. The opportunities were also limited for Van der Spek: his activities in the field of the psychology of religion had all the earmarks of a hobby, a hobby that will have cost him quite a bit of energy and time, and which – once he had gained his doctorate – could indulge in more easily through his later work as an unsalaried university lecturer at Utrecht University. The first decades of the psychology of religion in the Netherlands present a picture of a lack of continuity, a picture that is not so odd, given the non-cumulative, heterogeneous character of psychology in general, and not only in the Netherlands.

NOTES

- 1 The term pillarization refers to the situation (in several European countries, but especially in the Netherlands) in which most parts of society are segregated along the lines of religious denominations and other than religious worldviews. In the Netherlands, not only Roman Catholics and various protestants, but also socialists and the politically "liberal" (which is not at all the same as religiously liberal!) had their "pillar," their rather isolated and autonomous section in society (including separate education, newspapers, insurance companies, but also, on a local level, their "own" butchers and hairdressers, etc.). During the pillarization, both Calvinists and Catholics claimed to be developing a 'Christian' psychology at their respective religious universities, a psychology that would be different from that taught at secular universities (Belzen, 1989, 2001b). As described extensively by sociologists (e.g. Hendriks, 1971), the process of pillarization achieved its culmination in 1920, and characterized the country until the 1960s.
- 2 The inaugural meeting of the GPSV was planned for 6 March 1920. Because of a delay in getting the invitations to the printer, the event had to be moved up a few weeks, which means that the Study Association for Psychic Research (parapsychology) can claim the honor of having been the first organization for psychology to be founded in the Netherlands, on April 1st, 1920 (cf. van Dongen, Gerding, 1983).
- 3 As is clear from the notes of the meeting, which are on file in the Noord-Hollands Archief (Haarlem, The Netherlands).
- 4 There is only one exception known: whereas De Graaf was the first to lecture on the psychology of religion at the theological faculty of Utrecht University, the Catholic

psychologist Franciscus J. M. A. Roels (1887-1962) was the first to do so at the philosophical faculty, later home to the department of psychology. Although someone with whom Van der Spek had had closely collaborated – though not on religious issues – Roels apparently was not invited to join the GIPSV, perhaps while Van der Spek knew he would decline an invitation?

- 5 An example of the first category is J. Waterink (1890-1966), the founder of the department at the Free University. An example of the second is D. J. van Lennep (1896-1982), professor of psychology at Utrecht from 1949 to 1966. While Waterink remained theologically active, Van Lennep completely abandoned his earlier discipline after making his acquaintance with psychology. Van Lennep never wrote about the psychology of religion. Waterink thought that for theological reasons, the psychology of religion could not exist (to be more precise: he thought that psychology could investigate the 'religio falsa' but not the 'religio vera', cf. Belzen, 1994).

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Normality and Pathology in the psychological-medical debate of the 19th century

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For a long time, concepts like normality, health and pathology have been the exclusive interest of medicine; only recently has psychiatry also focused on them. While medicine has had parametric values and tools to analyze health-pathology issues, psychiatry needs to analyze variables which are difficult to assess and to compare.

The historical research into these conceptual and methodological problems focuses on the work of certain psychologists and psychiatrists – like W. James, A. Meyer, C. W. Beers, G. C. Ferrari – who worked in this field during the 19th century. The common peculiarity between these authors is their interest in this 'borderline', of which they analyzed the ambiguities and strengths.

Among those who contributed to the clarification of certain notions concerning normality and pathology and those who moved towards prevention we find Clifford Whittingham Beers (1876–1943).

Beers was born in New Haven, Connecticut to Ida and Robert Beers on March 30, 1876. He was one of five children; the first years of his life were, in most ways, not unlike those of other American boys. Though it is now difficult to believe, he was painfully shy (Beers, 1921, p. 2).

He entered a public grammar school in New Haven, Connecticut, where he graduated in 1891. In the fall of that year he entered the High School of the same city (*ibid.*, p. 4).

In June, 1894, he received a high school diploma. Shortly afterwards he took an examination for Yale, and the following September entered the Sheffield Scientific School, on a non-technical course:

When I entered Yale, I had four definite ambitions: first, to secure an election to a coveted secret society; second, to become one of the editors of the *Yale Record*, an illustrated humorous bi-weekly; third (granting that I should succeed in this latter ambition), to convince my associates that I should have the position of business manager – an office which I sought, not for the honor, but because I believed it would

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enable me to earn an amount of money at least equal to the cost of tuition for my years at Yale; fourth (and this was my chief ambition), to win my diploma within the prescribed time. These four ambitions I fortunately achieved (*ibid.*, p. 7).

The last week of June 1894 was an important one in his life. An event then occurred which undoubtedly changed his career completely. It was the direct cause of his mental collapse six years later and of the distressing and, in some instances, strange and delightful experiences. The event was the illness of an older brother, who late in June 1894 was stricken with what was thought to be epilepsy.

On July 4th 1900 he died, after a six-year illness. The doctors finally decided that a tumor at the base of the brain had caused his malady and his death. Few diseases can so disrupt a household and distress family members.

Beers was in college when his brother was first stricken and, having more time at his disposal than the other members of the family, spent much of it with him. Although during the first year his brother's attacks occurred only at night, the fear that they might occur during the day, in public, affected his nerves from the beginning (*ibid.*, pp. 5-6).

Beers was concerned about the implications for himself: "Now, if a brother who had enjoyed perfect health all his life could be stricken with epilepsy, what was to prevent my being similarly afflicted?" (*ibid.*, p. 6). The more he pondered on this, the more apprehensive he became; and he was increasingly convinced that his own breakdown was only a matter of time. Doomed to what he considered a living death, for six years he ruminated on epilepsy and dreamed about epilepsy, until his overwrought imagination brought him to the very verge of an attack (*ibid.*).

He graduated from the Sheffield Scientific School at Yale in 1897. After his degree, he worked in the Tax Office and later for an Insurance Company in New York; his health seemed no worse than it had been during the preceding three years. But the old dread had not gone away; in March, 1900 there was a change for the worse; he showed clear signs of depression until the final breakdown came, on 23 June 1900, when he attempted suicide (*ibid.*, pp. 10-15).

In 1900, at the age of 24, he was first confined to a private mental institution for depression and paranoia that took the shape of various forms of persecution and hallucination. He would later be confined to another private hospital as well as a state institution. During these periods he experienced and witnessed serious ill-treatment at the hands of the staff.

With a clear head he meticulously analyzed what was happening and with considerable inner strength he tried to deal with all the forms of ill-treatment, abuse and violence which he considered unworthy of a person. He sought to expose the situation, partly by writing letters to the relevant authorities to demand respect for human dignity, which he insisted was a legal duty.

Beers was discharged from the State Hospital in September, 1903. Late in

October of that same year he went to New York and within three months had secured a position with the same firm for which he had worked when he first went there six years earlier (ibid., p. 170). Here he found the time to write up the story of his experiences, and an opportunity to further his humanitarian project (ibid., pp. 170-171).

Although once more a free man, his thoughts remained with those suffering in the institution he had managed to escape. He realized, to his horror, that his sanity had been threatened and undermined at every turn. While bearing no malice towards those who had had him in their charge, he nonetheless abhorred the system within which he had found himself (ibid., p. 173).

Late in the autumn of 1904, a slight illness detained him for two weeks in a city several hundred miles from home. It afforded him an opportunity to read several of the world's great books. One of these was *Les Misérables*; it made a deep impression on him:

Hugo's plea for suffering Humanity [...] struck a responsive chord within me. Not only did it revive my latent desire to help the afflicted; it did more. It aroused a consuming desire to emulate Hugo himself, by writing a book which should arouse sympathy for and interest in that class of unfortunates in whose behalf I felt it my peculiar right and duty to speak. I question whether anyone ever read "Les Misérables" with keener feeling. By day I read the story until my head ached; by night I dreamed of it (ibid., p. 174).

On January, 1905, Beers began to write guided by this thought:

"Uncle Tom's Cabin," had a very decided effect on the question of slavery of the negro race. Why cannot a book be written which will free the helpless slaves of all creeds and colors confined today in the asylums and sanitariums throughout the world? That is, free them from unnecessary abuses to which they are now subjected. Such a book [...] can be written [...]. Such a book might change the attitude of the public towards those who are unfortunate enough to have the stigma of mental incompetency put upon them.

Of course, an insane man is an insane man and while insane should be placed in an institution for treatment, but when that man comes out he should be as free from all taint as the man is who recovers from a contagious disease and again takes his place in society. [...]

From a scientific point of view there is a great field for research. [...] Cannot some of the causes be discovered and perhaps done away with, thereby saving the lives of many [...]? It may come about that some day something will be found which will prevent a complete and incurable mental breakdown (ibid., pp. 177-178).

Thus he adjusted the compass that would later guide the ship of his hopes (not one of his phantom ships) into safe waters, and ultimately into a safe harbor (ibid., p. 178).

In July 1906 the first draft of the greater part of his story was finally concluded, and he began to ask a whole range of people for their opinions upon it. As luck would have it, while seeking criticism and advice, he decided to submit his manuscript to William James, a professor at Harvard University, who expressed interest in his project and answered with the following letter:

95 IRVING ST., CAMBRIDGE, MASS.
July 1, 1906.

DEAR MR. BEERS:

Having at last "got round" to your MS., I have read it with very great interest and admiration for both its style and its temper. I hope you will finish it and publish it. It is the best written out "case" that I have seen; and you no doubt have put your finger on the weak spots of our treatment of the insane, and suggested the right line of remedy. [...]

You were doubtless a pretty intolerable character when the maniacal condition came on and you were bossing the universe. Not only ordinary "tact," but a genius for diplomacy must have been needed for avoiding rows with you; but you certainly were wrongly treated nevertheless; and the spiteful Assistant M.D. at - deserves to have his name published. Your report is full of instructiveness for doctors and attendants alike.

The most striking thing in it to my mind is the sudden conversion of you from a delusional subject to a maniacal one - how the whole delusional system disintegrated the moment one pin was drawn out by your proving your brother to be genuine. I never heard of so rapid a change in a mental system.

You speak of rewriting. Don't you do it. You can hardly improve your book. I shall keep the MS. a week longer as I wish to impart it to a friend.

Sincerely yours,
WM. JAMES (ibid., pp. 197-198)

Though James paid him the compliment of advising him not to rewrite his original manuscript, Beers did revise it quite thoroughly before publication. When his book was about to go to press for the first time and since its reception by the public was problematical, he asked for permission to publish James's letter. In reply, James sent the following letter, also for publication:

95 IRVING ST., CAMBRIDGE, MASS.
November 10, 1907.

DEAR MR. BEERS:

You are welcome to use the letter I wrote to you (on July 1, 1906) after reading the first part of your MS. in any way your judgment prompts, whether as preface, advertisement, or anything else. Reading the rest of it only heightens its importance in my eyes. In style, in temper, in good taste, it is irreproachable. As for contents, it is fit to remain in literature as a classic account "from within" of an insane person's psychology.

The book ought to go far toward helping along that terribly needed reform, the amelioration of the lot of the insane of our country, for the Auxiliary Society which you propose is feasible [...].

You have handled a difficult theme with great skill, and produced a narrative of absorbing interest to scientist as well as layman. It reads like fiction, but it is not fiction; and this I state emphatically, knowing how prone the uninitiated are to doubt the truthfulness of descriptions of abnormal mental processes.

With best wishes for the success of the book and the plan, both of which, I hope, will prove epoch-making, I remain,

Sincerely yours,
WM. JAMES (ibid., pp. 198-199)

After the publication of *A Mind That Found Itself* (1908), Beers had the satisfaction of receiving many letters from eminent men and women who, having achieved significant results in their own work, were naturally responsive to the efforts of anyone trying to reach a difficult objective. Of all the encouraging opinions he received, one particularly pleased him. It came from W. James a few months before his death, and would always be an inspiration to him:

95 IRVING ST., CAMBRIDGE,
January 17, 1910.

DEAR BEERS:

Your exegesis of my farewell in my last note to you was erroneous, but I am glad it occurred, because it brought me to the extreme gratification of your letter of yesterday.

You are the most responsive and cognizant of human beings, my dear Beers, and it "sets me up immensely" to be treated by a practical man on practical grounds as you treat me. I inhabit such a realm of abstractions that I only get credit for what I do in that spectral empire; but you are not only a moral idealist and philanthropic enthusiast (and good fellow!), but a tip-top man of business in addition; and to have actually done anything that the like of you can regard as having helped him is an unwonted ground with me for self-gratulation. I think that

your tenacity of purpose, foresight, tact, temper, discretion and patience, are beyond all praise, and I esteem it an honor to have been in any degree associated with you. Your name will loom big hereafter, for your movement must prosper, but mine will not survive unless some other kind of effort of mine saves it.

I am exceedingly glad of what you say of the Connecticut Society.

Yours faithfully,
WM. JAMES (*ibid.*, p. 200)

Beers sums up his purposes in the following words:

This story is derived from [...] a document as ever existed; [...] It is an autobiography, and more: in part it is a biography; for [...] I must relate the history of another self which was dominant from my twenty-fourth to my twenty-sixth year. During that period I was unlike what I had been, or what I have been since. The biographical part of my autobiography might be called the history of a mental civil war, which I fought single-handed on a battlefield that lay within the compass of my skull. An Army of Unreason, composed of the cunning and treacherous thoughts of an unfair foe, attacked my bewildered consciousness with cruel persistency, and would have destroyed me, had not a triumphant Reason finally interposed a superior strategy that saved me from my unnatural self. I am not telling the story of my life just to write a book. I tell it because it seems my plain duty to do so. A narrow escape from death and a seemingly miraculous return to health after an apparently fatal illness are enough to make a man ask himself: For what purpose was my life spared? [...] this book is, in part, an answer (*ibid.*, p. 1).

In his critique to the notion of madness, Beers points out the boundaries between normality and madness and highlights the path that leads back to normality: "that so-called madmen are too often man-made, and that he who is potentially mad may keep a saving grip on his own reason if he is fortunate enough to receive that kindly and intelligent treatment to which one on the brink of mental chaos is entitled" (*ibid.*, p. 190).

Moreover, he wonders whether: "Is it not, then, an atrocious anomaly that the treatment often meted out to insane persons is the very treatment which would deprive some sane persons of their reason?" (*ibid.*, p. 204). And, finally, he deduces that friendly relations with healthy persons might be sufficient to ensure a return to normality:

Contact with sane people, if not too long postponed, means an almost immediate restoration to normality. This is an illuminating fact. Inasmuch as patients cannot usually be set free to absorb, as it were, sanity in the community, it is the duty of those entrusted with their care to treat them with the utmost tenderness and consideration.

"After all," said a psychiatrist, who had devoted a long life to work among the insane, both as an assistant physician and later as superintendent at various private and public hospitals, "what the insane most need is a *friend*!" (ibid.).

Once Beers had returned to normality, after the years spent in a lunatic asylum, he wrote his autobiography in order to protest against the pains he suffered and to attract the attention of the public opinion on the state of those suffering from mental diseases in American mental hospitals.

Beers pointed out that no fewer than one million men and women in the United States alone had had to seek treatment for mental illness within institutions, while thousands of others had been treated outside of institutions, and thousands of others again had received no treatment at all.

And "No less than half of the enormous toll which mental disease takes from the youth of this country can be prevented by the application, largely in childhood, of information and practical resources now available" (ibid., p. 202).

Beers in 1921 notes that his plan broadened from reform to cure, from cure to prevention, to the extent that, with the cooperation of some of his country's ablest specialists and most generous philanthropists, it was implemented nationally and internationally through the new forms of social mechanism known as societies, committees, leagues or associations for mental hygiene. However

More fundamental, than any technical reform, cure, or prevention – indeed, a condition precedent to all these – is a changed spiritual attitude toward the insane. They are still human: they love and hate, and have a sense of humor. The worst are usually responsive to kindness. In not a few cases their gratitude is livelier than that of normal men and women (ibid., p. 202).

Any person who has worked among the insane, and done his duty by them, can testify to cases in point, and the fact that the insane are often appreciative.

This episode reveals the profound truth of this statement:

It seems that the woman in question had, at her worst, caused an endless amount of annoyance by indulging in mischievous acts which seemed to verge on malice. At that time, therefore, no observer would have credited her with the exquisite sensibility she so signally displayed when she had become convalescent and was granted a parole which permitted her to walk at will about the hospital grounds. After one of these walks, taken in the early spring, she rushed up to my informant and, with childlike simplicity, told him of the thrill of delight she had experienced in discovering the first flower of the year in full bloom – a dandelion, which, with characteristic audacity, had risked its life by braving the elements of an uncertain season.

"Did you pick it?" asked the doctor.

"I stooped to do so," said the patient; "then I thought of the pleasure the sight of it had given me - so I left it, hoping that someone else would discover it and enjoy its beauty as I did" (ibid., p. 203).

After the publication of *A Mind That Found Itself*, an autobiographical account of his hospitalization and the abuses he suffered during it, Beers gained the support of the medical profession and others in the field to reform the treatment of the mentally ill.

Besides the autobiography, he undertook a number of enterprises designed to improve the state of the mental hospitals in the US, and he pointed out that hospital staff were not appropriately qualified. In 1908 he promoted the Connecticut Society for Mental Hygiene and in 1909 set up the National Committee for Mental Hygiene, an association which would play a key role in transforming the mental hospital system in the US. He also started up the Clifford Beers Clinic in New Haven in 1913, the first outpatient mental health clinic in the United States. He was a leader in the field until his retirement in 1939.

Further support for Beers' work came from A. Meyer.¹ Meyer, who was engaged in the reform of the mental hospital business, recognized in Beers' communicative skills the power to transform public opinion. In addition, Meyer sought to extend the possible fields of applied health to include preventive or curative measures for all kinds of mental disease, from mental deficiency to madness and criminal behavior. It was Meyer who suggested the term 'Mental Hygiene' to Clifford Beers.

Beers wanted the Mental Health Movement to concentrate on helping those suffering from mental diseases, and hoped that it would expand both locally and internationally. The main goal of the Mental Health Movement would be to improve the treatments in lunatic asylums. Through his efforts, Beers sought to reverse the erroneous belief that mental diseases could not be cured and to promote prevention of mental illness.

Furthermore, Beers built a first database listing all lunatic asylums and all psychiatrists. Subsequently, he began an annual statistical report on mental illness. This work highlighted the lack of a unified nomenclature for the classification of mental diseases. This fact contributed to the creation of the first official diagnostic language.

Beers' influence eventually spread beyond the United States. In 1918 he helped Clarence M. Hincks found a mental hygiene society in Canada, the Canadian National Committee for Mental Hygiene. Beers was active in organizing the International Congress on Mental Health in 1930, and three years later received an award for his achievements in the mental health field from the National Institute of Social Science.

Beers' enterprise quickly spread to Europe too, to Belgium, France and Italy, where it found a competent spokesperson in Giulio Cesare Ferrari (1867-1932) (Mucciarelli, 1984; Bongiorno, 1988, 1989, 2007; Lazzari, 1998; Lazzari, Quaranta, 1988).

He reports having been deeply influenced both by the psychology of W. James, who provided him with a broader and more vital vision of psychology², and by C. W. Beers, who opened up new horizons in psychiatry and inspired his interest in the cause of the mental health movement: "By chance I took part in the beginning of this 'movement'. I had translated the famous 'Principles of Psychology' by W. James, and he sent me the manuscript of W. Beers because, as he was treating a man just released from a mental hospital, he wanted to be sure that the text would possess the reliability he had felt with his enormous intuition."³

Ferrari considered Beers' book to be vital to the cause of mental patients and in 1909 he presented it to the Italian public (Ferrari, 1909). The story deeply touched him and steered him towards a phenomenological approach to psychiatry (Ferrari, 1897a, 1897b, 1901). He became convinced that the relationship with the mentally ill patient should evolve into one of 'comprehension', of 'empathy'. For Ferrari it was essential to recognize the dignity of the mentally ill patient, who deserves total respect and to be considered a 'subject', not an 'object'. He believed in the importance of individuals' experience; he saw in emotional experience the key to understanding the mechanisms which operate in the interplay between patient and mental institution and in the psychopathological relationship. In order to make psychiatry more human, Ferrari believed that it was necessary to reevaluate, at the epistemological level, the presuppositions that underlay much psychiatric therapy, so as to unmask those prejudices of a historical, logical or linguistic nature towards individuals considered to be "crazy" or "criminal" or tending towards either of these categories. Using a historical-genetic methodology, Ferrari analyzed the dynamics of the process which creates the deeply rooted and widespread belief that "to be considered" crazy or criminal amounts to actually being so in reality, a process which results in the relative annihilation of the individual (Ferrari, 1909).

Ferrari identified the roots of this process in hidden, affective, emotional and implicit beliefs, and he evaluated its practical consequences, which led him to conclude: a. that "mental illness" should be considered simply as a disease like any other and, as such, able to be cured; b. that there are very few alienated individuals totally excluded from the world around them as a consequence of their illness - a truth obvious to the alienists but quite outside of the awareness of others; and c. that mental illness can originate either because of a precise biological condition or by indirect causes which, in a 'predisposed subject', promote the formation of a superstructure capable of producing the illness. Within this scenario, he considers it urgent to intervene so as to prevent and block these mechanisms by approaching these unfortunate persons and helping them feel society's willingness to accept them "with cordiality" while safeguarding the good of society as a whole. Such conclusions should be valid also for problem children and especially for the "so-called criminal youth," who so easily end up in mental institutions. Treatment, from a humanizing perspective, should be characterized mainly as a matter of "prevention" or "prophylaxis" (Ferrari, 1923).

Ferrari, like Beers, intervenes at a theoretical level and with a number of initiatives to promote the development of mental health in Italy (Ferrari, 1897a, 1897b, 1901)⁴, but above all to reaffirm the 'empathetic' attitude, an openness to listening to accounts of other people's suffering in order to make it our own, to understand and respond to it. According to Ferrari, where the weak are concerned, science must give way to the primacy of the heart and of love (Ferrari, 1909, pp. 366-370); in the therapy he provides, the physician must bring all of his or her humanity into play and take part in the suffering of the other; medical science has to become an art. It is a matter of building bridges between pathology and normality, disease and health, loneliness and human relationships, of unmasking the various prejudices on which social relationships and institutional structures are based, in order to discern within each medical and therapeutic intervention the face of the human being, even when it is hidden in the depths of the abyss of mental illness and social degradation.

NOTES

- 1 Adolf Meyer was born in Niederweningen, Switzerland. He received his medical degree from the University of Zurich in 1892. After coming to the United States in 1892, Meyer held positions at the University of Chicago, Illinois Eastern Hospital for the Insane, Worcester Insane Hospital, Clark University, Pathological Institute of New York State Hospitals, and Cornell University before his appointment as professor at the Johns Hopkins University School of Medicine in 1908. He was named psychiatrist-in-chief at the Johns Hopkins Hospital in 1909. At Johns Hopkins, Meyer directed the development of the Henry Phipps Psychiatric Clinic, which opened in 1913. In designing the program for this clinic, Meyer integrated functions of teaching, research, and patient care. At the Phipps Clinic, Meyer trained two generations of psychiatrists, elevated modes of diagnosis and treatment, and conducted extensive research in neuroanatomy, neuropathology, and psychiatry. His major contributions include propounding the doctrine of psychobiology, standardizing case histories, reforming state insane asylums, and co-founding the mental hygiene movement. Meyer wrote no books; his pervasive influence on American psychiatry stemmed instead from his numerous published papers, his prestige, and his students, both at Manhattan State and, especially, at Johns Hopkins. (On Meyer, cf. Lief, 1948; Winters, 1950-1952; Winters, Bowers, 1957).
- 2 In Italy, the major works of James were translated and disseminated by Ferrari (Dazzi, 1984; Ferrari, 1984, pp. 267-268).
- 3 In a subsequent letter of December 16, 1908, James wrote: "I sent you a while ago a book by a friend of mine named Beers, which I think an important human document. If you can snatch time to read it, I think you will agree" (Ferrari, 1984, p. 255; Quaranta, 1984, 1985).
- 4 In 1930 Ferrari participated as a representative of Italy at the World Congress of Mental Health (Washington, 5-10 May 1930).

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Interpreting the child. Practical pedagogical phenomenology in the Netherlands

Jaap Bos*

1. Introduction

Old paradigms don't die, they just fade away to become part of a landscape in the background of science. There are huge mountains there, which have emerged many years ago, when enormous forces pushed the silky wet lands up and created from the sticky Dutch clay and the crumbly peat the yellowish grey and dark blue bulky volumes, seemingly hard and impenetrable from the outside but surprisingly soft and wax-like from the inside. Open up one of those volumes and you'll find an unsuspecting well of liquid, almost completely transparent discourse that flows over the pages like a broad slow river on a lazy afternoon.

Its a cliché to think of phenomenology as all description and no method, as unsound philosophic speculation about the 'life world', the encounter in it, the tragic problem of *Dasein*, from people who feign the deepest possible sympathy with their subjects but in reality have nothing to offer except extremely shallow and yet highly normative opinions. This is both true and untrue - as always. But what I am concerned with here is not, however, whether or not there was or is something worthwhile in phenomenology, but in one specific question only: how did phenomenology in the Netherlands *work*?

Phenomenology in the Netherlands, I hasten to add, is misleading in that there were in fact three university-based 'phenomenologies' in the 1950s, all three of which regarded the other two as 'misguided'. Of those three, the most significant school, the one on which I shall be focusing my attention, is the so called 'Utrecht school of phenomenology'. The Utrecht phenomenologists, it has often been pointed out, did not by any sociological definition form a group (Dehue, 1990; Weijer, 1991), except, that is, for the pedagogical institute founded by Martien Langeveld, a phenomenally able organizer who had generated a large following and did have, in contradistinction to many

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others, a large influence on the Dutch intellectual climate in the 1950s and early '60s.

Martien Jan Langeveld (1905-1989) received his education at the university of Amsterdam. He was trained in the Humanities (he majored in philosophy and psychology) and became interested in education and child development through the influence of Philip Kohnstamm, a former physicist who had turned to the field of education and developmental psychology (areas that were then not considered distinct), and who would subsequently become Langeveld's life long mentor. At Kohnstamm's suggestion, in the mid-1920s Langeveld took courses with Wilhelm Stern, Theodor Litt, Husserl, Heidegger and others - all Germans, and all phenomenologists, with the exception of Stern.

In word and print Langeveld declared himself a phenomenologist, but his position was always rather ambiguous. He was against reductionism, particularly of the psychoanalytic kind. He thought Piaget was dead wrong and considered Maria Montessori's methods to be 'incomplete'. Behaviorism was a perversion of education. Rigorous testing and quantitative research could only be a first step into the field, and consequently he didn't think much of statistical analysis. Intelligence tests were fine as long as you used them in a much more 'encompassing approach' to the child. What you really needed was a deep or complete understanding of the child, Langeveld argued.

2. Phenomenological methodology

When in 1931, Langeveld graduated from university, he became a school teacher in Baarn in order to make a living. There he began working on a PhD dissertation, which was finished by 1934. At his mentor's suggestion he wrote his dissertation on the subject of thought and language. The main thesis developed therein foreshadows his later phenomenological approach.

The concepts thought and language appear in a dialectical relation, Langeveld argued. In order to understand one, you need the other. But the relation is problematic: since the various parts of a sentence (such as words) only acquire meaning in relation to other parts, the problem arises as to where to begin or end analysis. The word 'chair', for example, is meaningful only in the context of a full sentence; that sentence in turn only within a larger part of a discourse, and a discourse only in relation to a full conversation - where to begin?

The need to make sense of something that must be expressed in a linguistic form by using that very same linguistic instrument seems to cause a peculiar 'slowing down' of thought. Thoughts are not able to process language as an uninterrupted stream of connected words in time. Understanding of language and language itself follow one another but do not connect, and every time it appears that something escapes analysis. When you think about language, it breaks apart and stops being itself. "The more

understanding falters, the less of language remains. A sentence stops after the first word is spoken, and when after a long while the next word is spoken the first has become lost" (Langeveld, 1934, p. 32).

Now, in order to come to any kind of understanding, one must use a trick, Langeveld argued, a 'technique of indirect understanding'. This technique presupposes that an empty structure runs parallel to content. That way the reader creates for himself the illusion that meaningless content and meaningful but empty structure relate. As soon as order and content seem to co-occur, resistance of content against structure will disappear and understanding is achieved.

This procedure, which in 1934 appears as a purely linguistic theory, seems a good metaphor for phenomenological analysis, which also seeks a way into the dark by supposing that behaviour makes sense even if behavioral elements themselves cannot be broken down into single meaningful units. When later Langeveld adopted from Husserl the word 'life-world' (written preferably in German: *Lebenswelt*) he used it in the structure-content sense described above: as a concept that gives meaning to behaviour while it is in itself is a meaningless form.

For Langeveld a phenomenological approach in education signified a deep appreciation of the concrete here-and-now life of the child. In his 1942 inaugural lecture, he argued that natural science's laws of causality do not apply in education because the educator is dealing with a subject that has a specific 'degree of freedom' which co-determines the process of education, and, secondly, because education implies a normative aim. No social scientific approach is worth a dime if it doesn't relate to concrete problems of the subject, and if it doesn't enable the child to become a 'self-determining self responsible' subject.

Langeveld's normative and phenomenological pedagogy consisted of a rather liberated form of religious belief, which basically implied no more than a fundamental trust in the world, and a rather traditional conception of society and family (Langeveld, 1955). He highly valued the hard-working father, the loving mother at home, polite conversation between friends who made subtle jokes; he disliked television and read only 'real literature'. In short, Langeveld lived in a traditional world. When the 1950s produced the beat generation, and the 1960s flower power, Langeveld's response was disbelief, but he never lost confidence in society.

Children, parents, school and, to a lesser degree, the church, were the subjects the educator had to deal with. Much of his work in the 1950s consisted in describing the conditions, circumstances and situations on which children would prosper. Significantly, Langeveld's most celebrated essay of this period is a paper on the "secret place in the life of a child," by which he literally meant places like the attic, or a cloakroom, where the child can temporarily withdraw from the world to be one with itself (Langeveld, 1953).

A highly romanticized image of the child was thus paired with a highly individualistic approach. But unlike other phenomenologists, Langeveld did

not limit his work to writing about children only, he sought to transform society. He envisaged a much more harmonious society, where children would not be drilled, disciplined, trained or purposelessly tested, but truly educated in a co-operative way, which, however, did not at all imply equal relations. When Langeveld founded the department of education, his goal was to prepare educators for such a task.

From the late 1940s and throughout the 1950s an increasing number of students came to Utrecht to be trained by Langeveld. Particularly during the first years, when only a few students applied to education, studying with Langeveld felt like becoming part of an inner circle of a select and privileged few. Students formed their own society where they would sing the praises of phenomenology. Some were selected by Langeveld to become his assistants, others would write their PhD with him, and of these quite a few would eventually become professors. From the 1960s onward, however, resistance against phenomenology arose, even from within his own ranks. Some of his assistants and students and eventually the board of studies too began to object to what was now considered 'non-empirical' or interpretative work. When Langeveld left in 1972 he had all but outlived his own department. In the 1980s it was overhauled so efficiently that just a few years later the word 'phenomenology' sounded as outdated as, say, alchemy.

In retrospective, it seems clear that Langeveld never succeeded in solving the problem of phenomenological methodology, i.e.: the issue of how to connect theory and empirical observation. What was on the one hand crystal clear in his mind proved to be increasingly difficult to convince others of. His work, he insisted, was *empirical* because it was grounded in sound observations, well developed practices of dealing with children, and non-reductionist tests. But observations are not empirical by themselves, and so, pressed by colleagues, Langeveld (1972) began to record the criteria on which he based his observations. From his methodology I quote the following six 'observational criteria'; - they list the things pedagogues should 'investigate' when they examine a child:

1. The individual and concrete child, in all his/her variants and developmental phases;
2. Involvement of this child with his/her own life;
3. Child-rearing background, in particular the parent;
4. Style of child-rearing, difficulties;
5. Education, difficulties at school;
6. Preparation for problems of adulthood.

The list goes on (there are 15 points in all), but none of these issues ever become more concrete than this. Opponents were baffled: these criteria don't help at all. How exactly do you test a child's 'involvement with its own life'? Do you ask the child about it? Do you use tests? What kind of criteria are there to differentiate children that are 'well-developed' from those that are not? And how do you measure the child-rearing background? How do you know if a child has difficulties at school? Do you ask the teacher?

Obviously, Langeveld's methodology produced many more questions than it answered. During the 1960s, in psychology increasingly stringent instruments were developed to measure not 'the child in all his/her variants', but quite simply his/her cognitive performances on a specific scale. Langeveld, however, choose not to follow this line and spent years of his life developing a projective test based on 24 plates for 4 different age groups (Langeveld, 1964). It came out in the late 1960s, not too long before his retirement, and was called 'The Columbus' (by which he meant to signify on the one hand the belief that he had found the 'egg of Columbus', and on the other the child's journey of discovery in life). Several editions appeared, both in German and in English, up to the 1980s, but it was quite simply too little too late. It could not prevent phenomenology from fading out.

The recent surfacing of a collection of client files from the estate of Langeveld may throw a new light on the issue of phenomenological methodology. Langeveld kept a private child practice from 1931 to the mid 1970s, where parents sought advice for their children, and on occasions Langeveld provided therapy for the child as well, although it remains unclear how often that actually happened.

Initially it was a small side line, a way of gaining some extra income on top of his meagre salary as a school teacher, but from the time he became extraordinary and, finally, full professor, the child practice increased along with his status, and grew from a good dozen clients annually to over 100 in the late 1940s.

Being extremely methodical, Langeveld kept files of each and every case he saw, at least from 1938 onwards. Some 1300 of these files were donated to the library of the University of Utrecht. The 'providence' of the collection is unclear and it is therefore uncertain whether it is complete, but the files still give a fascinating insight into precisely the problem that Langeveld was seeking to solve: the connection between theory and practice. How did he work? What kind of things did he observe? What instruments did he use? How did he report to the parents? From the files we are now able to reconstruct the following picture.

(1) It was mostly parents with children in primary or secondary school who worried about their children's cognitive capabilities who would seek Langeveld's advice. The clients were recruited mainly from the elite and were often intellectuals themselves, sometimes even colleagues. One informant told the author that it was considered 'prestigious' to have your child tested by Langeveld, and oftentimes these children had already been tested elsewhere. It was therefore also a last resort.

(2) Once contact was established, Langeveld would ask the parents to send him school work from the child, one or two photographs and a hand-written 'free' or non-guided autobiographical essay by the child, to obtain a first impression. An appointment was then set, usually on a Saturday, so as not to interfere with school.

(3) Upon arrival, Langeveld would interview the parents. His questions concerned the medical history of both parents and the child, as well as the

child's performance at school, his behaviour at home, his playing with friends, specific difficulties, etc.

(4) At the same time, one of his assistants would interview, observe and finally test the child. The institute had a playroom with a one-way mirror to make it possible to observe the children. The tests used vary slightly. Intelligence was measured with a standard Binet IQ test; projective tests such as the Rorschach, and later his own Columbus, gave an impression of the child's 'responsiveness', while drawings, often of a tree, were used to monitor the child's spontaneous behaviour. Observations of the child's play in the playroom completed the test.

(5) Almost invariably, the parents were advised to send the child to an internist, who would medically examine him/her and measure his/her metabolism. The internist reported back to Langeveld, who would then compile a report on the child. Of the 1300 files in our possession, almost all still hold test results, correspondences, case notes, photographs, the child's school work, an autobiographical essay, the tree drawing, the internist's account and Langeveld's report.

3. Case history: Oscar

Let us briefly look at one case in greater detail to see how things worked. A 12-year-old boy, whom we shall call Oscar, son of a notary who worried that his child might not be smart enough to go to university, was brought to Langeveld in the early 1960s.

Oscar's file contains a photograph, letters from his parents to Langeveld, a handwritten autobiographical narrative by Oscar, an IQ test form (Terman and Merrill), case notes in different handwritings, a drawing of a tree by Oscar and a copy of the 4-page typed report on Oscar by Langeveld. The file is typical both in terms of the material it contains and in terms of content.

Case notes from the interview with the parents indicate that Oscar had a difficult birth resulting in a haemorrhage that left him spastic. The notes indicate furthermore that all sorts of medical issues were discussed, such as his eyesight, hearing, bed-wetting, a concussion at age 10, the condition of his teeth, etc. In conclusion Langeveld observes: "He is rather nervous."

During the interview Oscar says that he wants to be a vet when he grows up, but his parent have doubts about his ability to study. Indeed, in his first letter to Langeveld, the father writes: "His IQ is certainly 100%, but we doubt whether he'll have the 120% needed. Unintelligent is not what I would call him, but we do have the impression that he is a slow learner."

In that letter the father mentions how he had met Langeveld a few weeks earlier, when the latter gave a lecture at school. They talked about the possibility of having his son tested, from which it can perhaps be deduced that Langeveld used these lecture occasions to advertise for his child practice.

Further contact resulted in an appointment.

Prior to that, Oscar had written a short autobiographical account. Armed with this first impression, Langeveld would now receive the boy. Case notes in the file indicate that Langeveld himself interviewed the parents, while one of his assistants interviewed Oscar; I have no information regarding who the assistant was. Some of Langeveld's notes deal with the medical history of parents and child, the other half the boy's school career, with some side observations too, such as "bad teeth" or "left handed."

The assistant's notes are unfortunately much more difficult to read. Both the handwriting as well as the frequent use of abbreviations make them almost impossible to decipher, but it is clear that they partly record their conversation and partly comment on the boy at same time. Thus they contain observations such as "feels rejected," "not very social," etc. The word "animals" appears in several passages, sometimes linked to "studies" and "vet."

During the second part of the interview, Oscar was formally tested. It appears that he first worked on the IQ test, was subsequently asked to draw a tree and finally received the Rorschach and Langeveld's Columbus test. The Rorschach produced a lot of data, as it is bound to do. What did Oscar see in the ink blot the first time around? "A butterfly." And what at the second attempt? "A bat." When the assistant encourages him to look also at isolated parts, the third response to ink blot nr. 1 is: "Dog." And so it goes on. The answers are scored according to the standardized Rorschach evaluation scheme.

Oscar's autobiographical essay reveals a charmingly childish boy: "I was born in 19--. I grew bigger all the time. But I don't recall anything from that. Except a little bit. That was when I was about 2 years old. My mother told me about it. It made me laugh so much." In his essay he expresses a wish to become a veterinarian, but admits that he needs help from his parents at school and ends with a question: "How about later at school?" Several sentences in the essay as well as spelling errors are underlined and at the bottom of the last page Langeveld noted: "Some revealing melancholia; reluctance; bad luck ideas."

Unfortunately for Oscar, he didn't do too well on the Terman and Merrill, as his IQ was established at 95 points. "Seriously unable to reason abstractly," the assistant noted. The tree drawing resulted in the following comment: "No indication of low vitality, however, more passive and non-dynamic." The Rorschach resulted in the overall verdict: "insecure." A note from the assistant reads: "Average to common perceptions and interpretations, except O," which meant that his score on "originality" was below average. The Columbus resulted in the following finding: "sweet-sensitive" and "dependent."

The assistant also spoke with Oscar about his wish to become a veterinarian. The report reads at this point: "out of the question," adding as an afterthought a note presumably intended for Langeveld to be included in the report, that medical school is "hard and very competitive, has a rigid and very demanding training, tough inflexible examinations and a lot of reading."

Next in the file is Langeveld's 3-page report, which was written the very

same day. Langeveld starts with a repetition of what the parents had already told him, including the medical history, namely that "Oscar is a normal boy with average intelligence. Apart from that, our examination revealed a constitution which weakly but markedly affects cognitive functioning" - by which was meant the boy's spastic condition.

However, writes Langeveld, Oscar is "very well capable of acting sensibly," except that "we found him to be rather depressed and uncertain about 'what to do with school'" - the quotation is from Oscar's essay. Oscar has the unhappy feeling of not being able to live up to what is expected from him, writes Langeveld, and he believes he cannot be helped sufficiently by his parents - again a reference to the essay by the child. With an IQ of 95, his score is below average, continues Langeveld. "He therefore doesn't have the intellectual capacity to go to university and hence becoming a veterinarian is out of the question."

The report concludes with the observation that medicine is a demanding and competitive study, unsuitable for Oscar. However, since he is interested in animals, there are plenty of other things he can do, such as "working on a chicken farm." In the last part of his report Langeveld returns to the worries and feelings of uncertainty he noticed in the child, and advises the parents to be as open and positive as possible.

Considering that the parents sent Oscar to Langeveld to examine the possibility of a university training, the advice that he could perhaps go and look for work on a chicken farm must have been disappointing, but there is no follow-up correspondence to document the parents' response (as in other files I sometimes found). Forty odd years later Langeveld's account still strikes the reader as a sensible report. When he advises the parents to not try and push their child to do something that really isn't within his reach, one can only agree. There are, of course, also a few points that strike us as peculiar. There is first of all the obsession with physical examinations. The extensive inquiry into the medical history of parents and child and the routine referral to an internist appear above all designed to indicate that the whole project is really a serious endeavour - almost as if to guarantee that the researches are really based on sound empirical data.

What strikes us also is the perhaps somewhat disappointingly banal characterizations of the child, considering the proposition that phenomenology is about encountering "the individual concrete child, in all his/her variants and developmental phases." His "grading" of the child's written assignment in this context in fact is a reminder of the fact that Langeveld was a school teacher before he became a professor. Despite the impression he gave of being extremely sensitive to children, his actual intervention with them may have been limited. Several assistants told the author that they thought that Langeveld rarely saw the child for more than a few minutes. He thus was at least in part dependent on others (his assistants), whose reports were often quoted at length and which he would sometimes also grade, as if they were assignments in themselves.

4. Conclusions

The demise of phenomenology as a scientific and professional enterprise, as illustrated by the case of Langeveld and his pedagogical practice, of course corroborates the familiar picture of discipline formation in the social sciences during the 1960s. As an unintended consequence of the demarcation and specialization of the social sciences during the second half of the twentieth century, which eventually lead to a multitude of (sub-)disciplines, each with its own specific scientific community of scientists, specialized language, rigid methodology and body of knowledge, the margins of the field too became more visible, and so did the rites of institution and processes of authorization. Phenomenology clearly fell victim to this development, and it is tempting to attribute its downfall to its failure to adapt its methodology to newly emerging processes of authorization.

Steve Fuller (1997, p. 18) wrote that “if discoveries converge upon a more general pattern of thought, then that must be the result of reality ‘pulling’ in that direction, and not of disciplinary norms ‘pushing’ scientists that way. But given that scientists so rarely break with disciplinary norms – and quickly close ranks against those who do – how can one tell whether convergence is being pushed or pulled?” Is it, in the light of this question, possible that, while phenomenology lost its connection with science, science too lost its connection with phenomenology?

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“Liberalism is a sin”.

Responsibility, productivity and citizenship in Spanish scholastic psychology at the end of the 19th century (1875–1900)

Jorge Castro, Enrique Lafuente, Belén Jiménez*

1. Catholicism versus Liberalism in Restoration Spain

Liberalism is a sin is the title of a widely popular book published in 1884 by the Catalan priest Félix Sardà i Salvany (1844–1916), which can be considered one of the most finished expressions of Spanish Catholic integritism of the last quarter of the 19th century. Written in the same intransigent spirit as such pontifical documents as Pope Gregory XVI's encyclical letter *Mirari vos* (1832) or Pius IX's *Syllabus* (1864) condemning “modern errors,” Sardà's book contains a dogmatic rejection of liberalism in any of its forms. Rather than a criticism of philosophical, political or economic ideas, Sardà's radical objection against liberalism was raised on religious and moral grounds. Liberalism, to use Sardà's own terms, was “evil above all evil”; an “infection,” an “epidemic,” a “sect,” making those belonging to it worse than blasphemers, thieves, adulterers, or murderers. This is the reason why, in Sardà's opinion, Liberalism should be declared incompatible with Catholicism; for, like Catholicism, Liberalism also is a complete system, only precisely in the opposite sense (Sardà, 1887/1999; Callahan, 2000).

Although, as was only to be expected, not all Spanish Catholics shared Sardà's extreme views, their very extremity provides – so to speak – an amplified picture helping to gain a better insight into the conflict experienced by Roman Catholics in this crucial period of Spanish modern history – a period, needless to say, “full of liberalism” (Payne, 2006, p. 99).

One important source of tension had to do with the treatment given to religion and the Church in the liberal Constitution of 1876. It should be borne in mind that the year 1875 marked the beginning of a new period in Spanish history, the ‘Restoration Period’, so called on account of the reinstatement of the Bourbon dynasty to the throne of the country, in the person of king Alphonse XII. Alphonse's mother, Queen Isabel II, had been dethroned six years earlier by a ‘Glorious Revolution’ that was at this point

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brought to an end. In 1869, during the revolutionary period, a new Constitution had been issued where the liberty of cult was recognized as the most precious of individual liberties. The revolution being over, however, the Church expected to recover the privileges enjoyed in Queen Isabel's time, specifically those granted by the Concordat signed with the Holy See in 1851. But the 1876 Constitution, while granting the old privileges (by proclaiming Catholicism the official religion of the State and declaring the State's obligation to financially support the Church, among other measures), also granted the liberty of cult, albeit restricting its practice to private households. And this the Spanish Church found totally unacceptable.

For Spanish Catholics the issue had profound political as well as religious and anthropological implications. For Catholicism was not only believed to be the true faith, but it was also the faith professed by most Spaniards. And this was held to be not an accidental feature, but rather an essential ingredient of Spanish national identity. To officially acknowledge other faiths, therefore, irrespectively of the restrictions imposed on their public manifestations, was not only a sin against religion, but also a sin against patriotism – a shameful, antipatriotic act of treason (Álvarez Junco, 2001).

The most distinguished proponent of the view linking Catholicism with the Spanishness of the Spanish people was the historian, philologist and literary critic Marcelino Menéndez Pelayo (1856-1912). According to Menéndez Pelayo, it was the spiritual unity of the people that had made Spain a great, imperial nation in the past. It was thus to Catholicism that Spain owed its 16th-17th-century political and cultural splendour. On the other hand, foreign Enlightenment and revolutionary ideas, introduced into the country by the Bourbon Dynasty, came to undermine the faith of Spaniards and were held to be responsible for the decadence of the Spanish nation (Menéndez Pelayo, 1879, 1880-1882/1998). Menéndez Pelayo was an extremely influential author, not only in his own time, but also in later years, in the first half of the 20th century, when identification between Catholicism and patriotism was often resorted to by Catholic propagandists as a means of legitimating General Primo de Rivera's Catholic autocracy (in the 1920s), and then General Franco's military uprising (in 1936) and the subsequent National-Catholic regime (through the 1940s and beyond) (Lannon, 1987).

Liberal thought, of course, offered quite a different view of things. It rather tended to define the nation in terms of popular classes and psychological peculiarities, while attempting to found on these bases an idea of society which was the complete opposite of the old Catholic, monarchic/imperial model. Specifically, when reflecting on the decadence of the Spanish nation – a favorite topic of *fin de siècle* liberal "regenerationist" intellectuals searching for remedies to overcome the country's state of moral collapse subsequent to the Spanish-American War and the loss of the last overseas colonies in 1898 –, it was precisely Catholicism and the Church that were singled out as the most important causes (Fox, 1997).

2. The Catholic view of subjectivity and anti-modern citizenship

The ethnopsychological proposals advanced by liberal thinkers during the Restoration period (*Psychology of the Spanish people*, published in 1901 by the liberal historian Rafael Altamira, is but one significant example) came to be widely accepted across the whole political and ideological spectrum. In fact, they led to a widespread psychologization of Spanish socio-cultural reality which, in a way, has lasted to this day. But there were still profound disagreements as to the socio-political consequences to be drawn from them – specifically, concerning the principle of authority and the organization and goals of modern society, domains where Catholic intellectuals found serious reasons to object.

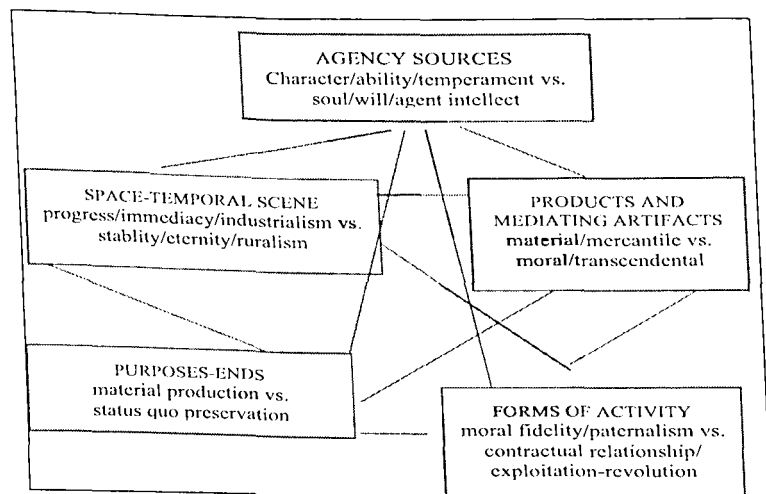
Indeed, a whole literary genre attempting to counteract liberalistic influence on this kind of issue can be seen to emerge from Catholic quarters during the Restoration period. Some significant major titles are Menéndez Pelayo's essays on *Spanish Science* (1879) or Sardà's already mentioned book *Liberalism is a sin* (1884). Other minor works include also such popular discourses as the philosopher Juan Manuel Ortí y Lara's speech on *Opposing theories of the State and its goals, depending on whether they come from the concept of evolution or from the concept of creation* (1899) or the politician Antonio Cánovas del Castillo's *Discourse to the Nation* (1882). But it is perhaps in small treatises dealing with different aspects of social ethics and the so-called "social question" that the most significant contributions made by Catholic authors to the promotion and diffusion of the idea of the subject as a citizen are to be found.

Publications by such significant authors as the Dominican Cardinal Zeferino González (1831-1894), the Catholic propagandist Manuel Polo y Peyrolón (1846-1918), the Basque professor of philosophy Manuel Eleizalde e Yzaguirre (d. 1897) or the above-mentioned Juan Manuel Ortí y Lara (1826-1904), professor of Metaphysics at the University of Madrid, can be considered as representative of the Spanish Catholic, neo-scholastic outlook. Taking these works as a reference point, we can conclude that, at the end of the 19th century, Spanish neo-scholastics were not much interested in contemporary Spanish social reality. Most scholastic writings at the time had a programmatic, preservationist, even utopian character. They were only critical insofar as they met other utopian proposals coming from other, different philosophical and ideological quarters – including all reformist attempts at taking into account the country's terrible social reality of the period. Beyond the surface level of discourse, on the other hand, the effective activity developed by neo-scholastics for underpinning their model of citizenship followed the traditional institutional paths of the pulpit and school. Indeed, until as late as 1900, scholasticism succeeded in spreading its model of citizenship through wide sectors of the population, thanks, above all, to the control it exerted on most basic educational levels – schools run by religious orders were innumerable until well up into the Franco era. And, what is

perhaps more important, also thanks to its influence on the basically rural and illiterate lower classes, via the local action of parishes (Álvarez Junco, 2001). It is, of course, in these strategic socio-institutional settings that, at least until 1900, the specific practices contributing to the shaping of the Scholastic model of citizenship ought to be examined. However, it is the programmatic discourses inspiring and supporting such practices that will concern us here.

In this connection, the work of the above-mentioned authors can be seen to show an interest in preserving deeply traditional structures of social coexistence, production and responsibility. Even more interestingly, in the theoretical founding of these structures, the principles of Aristotelian-Thomist psychology came to play an essential role – particularly, the general conception of an individual subjectivity which is structured according to the classical hierarchy of faculties. In fact, the psychological argument was explicitly used to confront the proposals of sociology, a discipline considered by scholastics to be the bearer of the most dangerous values.

One of the most popular treatises of ethics published at the end of the 19th century was that of Polo y Peyrolón (1880), who defined sociology as “an odd, half-Latin word of Comte’s and Littré’s” where both positivist reductionism and socialist and liberal aspirations came to merge. Although reluctantly assuming the seemingly unquestionable identity between the people, the nation, and collective psychology, neo-scholastic authors were not ready to accept the radical socio-cultural proposals advanced by these two ideological alternatives – particularly concerning such decisive aspects for the model of citizenship as social responsibility and productive activity. In fact, the structure of social coexistence conveyed in scholastic discourse was defined precisely in opposition to these alternatives. The nature of this opposition can perhaps be summarized in the following chart – an adaptation from K. Burke’s five elements constituting the structure or ‘grammar’ of action, namely: agents, scenes, means, purposes, and acts (Burke, 1969; Castro, Rosa, 2007).



The fragmentation of the structure of citizenship in these five strategic elements will allow us to carry out a precise methodological approach to the process of psychologization undergone within the scholastic perspective. A general interpretation of all these domains from their localization and analysis in an ample selection of scholastic treatises on ethics and the social question (mainly Balmes, 1842-1844, 1847; Eleizalde, 1886; González, 1873; Isern, 1899; Ortí y Lara, 1953; Polo, 1880; Sardà, 1887/1999) is proposed here.

3. Agency sources: The shaping of a rational and wilful subject

In the Scholastic discourse, the citizen's identity and activity were defined in psychological terms. The detection of the source of energy and direction of behavior was to result in a model of moral responsibility and productive capacity. Roughly speaking, end-of-the-century scholasticism stood against those deterministic and reductionistic aspects typical of the liberal socio-cultural model, and rejected any sociobiological (heredity, struggle, selection, survival, environment), psychophysiological (character, temperament, race, etc.), or psychosociological principles (empathy, suggestion, tendency to association, etc.) implying the mechanization and irrationality of human action as the basis for social cohesion and activity. An individualistic, generalistic model founded in free will, the agent-intellect, and the human will supposedly implanted by God Himself in the human soul was advanced instead. In this connection Cardinal Ceferino González, one of the most influential Spanish neoscholastic authors, wrote:

[...] the scope and capacity of will regarding good is in necessary relation and harmony with the scope and capacity of intellect regarding truth and being; for will is nothing but an inclination and tendency towards good as perceived and acknowledged by reason, and the denomination of appetite or rational energy given to will is highly philosophical. Being it so that human reason has the idea of the infinite, and conceives the infinity of good, and shows there is a Being possessing all perfections in an infinite degree, [...] therefore the movement and aspiration of human will can neither cease nor be fulfilled but with the possession of an infinite good. Therefore God, the only infinite good, is the ultimate, true, concrete, actual, and living end of human actions (González, 1876, p. 399).

In fact, reproducing the model of God the Father, scholasticism assumed that this individual, voluntaristic, intellectualistic psychological structure was ideally implanted in the male, allowing him to form and raise a family. The family thus became the minimal social unit from which the differentiations and complexities of human groups were to take place. Positive science, on the other hand, believed the diversifying, singularizing principle to be more basic

than any specifically human "moral psychology." It should in fact be found within the most elemental psychophysiological or, more precisely, characterological insides of individuals and collectivities. Indeed, 'character' (already a key concept in end-of-the-century positive psychology) and its varieties were not dealt with in scholastic treatises - or, if they were, it was only as a by-product of phrenological proposals which, by the last quarter of the 19th century, had already lost all credit, even in positivist quarters (Carpintero, 2004). By this time, however, the notion of 'character' was completely incompatible with the scholastic idea of a universal soul, on which a basic, to some extent inspecific, unity of the psychological identity and activity of the species was built.

4. Space-temporal scene: The soul's eternal and perfect time

In order to understand both the moral and productive aspects of the model of the citizen used by Spanish scholasticism at the end of the 19th century, the temporal framework employed by its authors for examining human psychological activity should also be acknowledged. As a framework still subject to a type of social structure consistent with Roman Catholic, imperialist traditionalism, the relevant experience of temporality was that of the ultramundane, eternal and perfect. Thus, the time thereby defined was purely subjective and ahistorical, not properly belonging to the City of Men. In fact, the management of the external time of daily life and, together with it, the very techniques for managing activity as well as its moral and productive elements, was hardly important. This is the reason why, whenever traditionalists spoke of the temporal experience of human psychology, it was the rural scene that they seemed to have in mind; for in opposition to the rising industrial and marginal chaos of towns, it was the rural milieu that better reflected the perfect stability and order of the promised afterlife. This is also why, in the positivist idea of progress, scholastics came to detect the image of an imperfect psychological activity, with no hope of ever being properly or definitively closed within a human temporal framework. This perspective is clearly present in the work of Sardà i Salvany which opened this paper; but a perfect example of this attitude is also provided by Polo y Peyrolón, one of the most active debaters of end-of-the-century Spanish scholasticism:

It was recently held by some philosophers on the wrong track that man's true happiness consists in the indefinite progress of the human genre. Such nonsense delays indefinitely true happiness, which amounts to denying its existence and, together with it, the ultimate human destiny; it places happiness beyond the reach of the individual, who, by and before himself, can neither speed up nor own that indefinite trip, and sinks into the horrors of fatalistic pantheism (Polo, 1880, p. 74).

As shown in this quotation, what Polo and the scholastics offered, in sharp contrast with the imperfection inherent in the notion of progress, was the unsurpassable goal to which all human activity should aspire: everlasting divine glory – beyond, of course, all external and mundane time. This is the reason why in end-of-the-century scholastic works there are hardly any references to the organization and management of productive activity. And even when there are, they are mostly meant as warnings of the dangers of possible working excesses – a reminder of the need to preserve a festive time for worship; i.e., an external and mundane time-space for the glorification of God and the preparation for eternal life.

5. Forms of activity: The intersubjective harmony of rural paternalism

The forms of activity envisioned by scholasticism to regulate intersubjective relationships entailed also a proposal on social responsibility and productive strategies. From a Catholic viewpoint, the psycho-sociogenesis of all models of social coexistence can be seen to be reproduced in the relationship between the agents involved in these contexts. Like the family, the minimal social unit, also the structure of the intersubjective activity between the employer/lord and the worker/servant has a patriarchal, paternalistic nature. Ortí y Lara, a harsh critic of all non-neoscholastic philosophical alternatives, offered an ideal image of this structure:

The person to whom domestic services are lent is obliged to faithfully pay for them in the agreed manner, and therefore settle the stipulated salary and provide for the servants' support; making sure that the work to be done is proportionate to their strength, and treating them as persons of a nature and destiny entirely similar to its own. Particularly, it should make sure that its servants be endowed with good habits, and that they reach that perfection which is peculiar to their nature. In turn, the persons who lend domestic services are obliged to perform them as agreed, watch for the conservation of those objects entrusted to their custody, and honor and obey the persons to whom they lend their services (Ortí, 1853, p. 162).

As shown in this quotation, the forms of this activity are grammaticalized thanks to the moral fidelity and goodness all human beings ought to be capable of acknowledging and exercising through the divine gift of their intellect. It is thus an individual and moral psychology, not a psychology of contractual relationships, that becomes the solution and desirable alternative to the two major structures of activity resulting from modern economy: the exploitation of the working masses and the revolution against the owners. This was, in fact, the key argument of *On the National Disaster and its Causes*, by the Catholic politician Damián Isern, which was the contribution *par excellence* of conservative ideology to the “regenerationist genre” (Isern, 1899).

Specifically, the image of work activity conveyed by this and other works of similar neoscholastic significance is that of a routine, little qualified work linked to the great rural masses. A grammar of resistance against the unstoppable modernizing process is implied; a resistance, moreover, which was to find continuity in the educational agenda. Assuming free will to be inherent in human soul, priority was given by Catholic educators to fixing moral action and responsibility through the use of pedagogical strategies of an intellectual, memoristic nature. On the other hand, for liberal education, as represented by such educational projects as that of the *Institución Libre de Enseñanza* [Free Institution for Education], it was much more important to transmit a concern for inquiry and empirical knowledge, the priority being here the training of such a priori individual determinations and singularities as character and the differential implementation of forms of productive action and resources to cope with them (Capitán, 1994; Feroso, 2003).

6. Mediating products and artifacts: Morality as a psychological non-market value

The relevant temporal structure being displaced to an ultramundane eternal kingdom, it was only natural that, for scholastics, the only human achievements and works worthy of consideration should have a moral and transcendent nature. Consistently with their rejection of progress, scholastic authors considered material merchandises as a mere accumulation of ephemeral objects. Not that the possession of these products should be disdained. As shown in Cardinal González's work, the fact of private ownership was justified by scholasticism on the psychological grounds that any creation resulting from work was a fruit of "forces and faculties as natural manifestations of personality" (González, 1873/1876, p. 186). Possessions were therefore a personal good - i.e., an individual belonging resulting from his/her work. Eleizalde e Yzaguirre's opinion in this respect was even more direct and detailed than that of González himself:

Indeed, when a man exercises his free activity on an object not belonging to anyone, he makes it his own, so it cannot belong anymore to other men unless the former freely renounces it. To hold the contrary would mean avowing there is no difference between the legitimate possession of an object by he who worked on it when it still belonged to no one, and he who did not do on it any work whatsoever. This argument also holds for the occupation of territorial property. When land has not yet been occupied, it does not belong to anyone at the moment; but it would be better for land to have an owner. Who would be him? He who occupies it, that is, he who exercises his free activity on it, impressing on it the seal of his personality (Eleizalde, Yzaguirre, 1886, p. 476).

In any case, personality-linked material possessions and creations were viewed as secondary to the search of those higher means and ends common to all mankind. Scholastics, in fact, were opposed to an excessive concern with the quantity and quality of cultural/commercial products. Thus, while defending – against socialism – the traditional possessions of the old possessing classes, they also criticized – against liberalism – the mere material and commercial accumulation of riches. This latter front was particularly crucial for the architects of the liberal nation-state. Not only because it was in these products that the hopes and opportunities of material progress were placed, but also because it was in their forms where the powers and singularities of national character or personality came to be crystallized. It should be noted that, in opposition to this, the personality referred to by such scholastic authors as Cardinal González or Eleizalde e Yzaguirre as a means of naturalizing the principle of property fell within the scope of Aristotelian-Thomist psychology; i.e., a general, individualist psychology, grounded in reason and will.

7. Purposes and ends:

A psycho-sociological order without material progress

From the liberal viewpoint, one of the main purposes of work activity was the optimization of material production. The liberal approach went as far as to promote social mobility in the interests of efficiency and productivity, even at the risk of causing some disruption in the social structure as a whole. In diametric opposition to this, end-of-the-century scholasticism viewed such productive goals linked to work as an annoying basic need, or as a means to pursue higher goals. A key principle of Christian dogma was that, after being expelled from the Garden of Eden, man was obliged to provide for his own subsistence “by the sweat of his brow” (Genesis, 3, 19). While in Protestant countries this biblical myth was adapted and softened – the condemning aspects of work being transformed into a way of glorifying God –, in Catholic, particularly Hispanic, countries, the original harsh interpretation was maintained. Until well into the 18th century, not needing to work with one’s hands was popularly held to be a sign of nobility and social distinction.

By the end of the 19th century, clear traces of this historical legacy were still perceptible in traditionalist Spanish scholasticism. The fundamental goal was that work activity, while not disturbing the status quo, should underpin as far as possible a strict regulation and hierarchization of social functions – in short, work should make it possible for every individual to occupy his/her rightful place in the established social order. Thus, the purpose of the productive structure was subordinated to the social harmony reflecting the perfect order projected by God on nature and society. Any deliberate alteration of this productive harmony, such as socialist revolution or capitalist exploitation, entailed a grave defiance of God’s wishes. The worries of

traditionalism in this respect were clearly expressed as early as 1842 by Jaime Balmes, the well-known ideologue of Spanish Catholicism:

The accumulation of riches resulting from the speed of industrial and commercial change tends to favor a system exploiting the sweat and life of all, for the benefit of a few; but this tendency is counterweighted by the leveling ideas, swarming in so many heads, more or less openly criticizing current work management, as well as product distribution, and even property. Huge masses suffering poverty and deprived of moral instruction and education will be willing to support the realization of criminal and foolish projects, as soon as a disastrous combination of circumstances makes this possible. There is no need to confirm with facts the sad assertions just made; everyday experience provides more than enough confirmation (Balmes, 1842-1844, pp. 434-435).

Perhaps the most interesting thing to note in this quotation is how capitalism becomes dissociated from both private property and traditional production means. Again, capitalism can be seen to be backed up by a moral agent psychologically devised for making the good, the stable and the harmonic merge together; in other words, for legitimating the traditional asymmetrical, immobilistic structure of production. Beyond the unquestionable humanistic concern present in the above quotation, the strategy displayed by Balmes, like in all scholastic quarters, contributed to preserve the traditionalist and rural status quo against the vertiginous horizon of change and industrialism opened up by socialist and capitalist ideas.

8. The false agony of the scholastic model of citizenship

The psychological strategies of resistance dealt with in this paper acquire new meaning when placed in a broader historical framework. This wider context refers to the deep socio-political changes which occurred in all western nations-states from the beginning of the 19th century. In all of them, a new conception of human action in the socio-cultural project was demanded. As a result, two new fields of sociocultural intervention came to the front: one defining human activity as production; the other transforming moral or cultural identity into a mechanism of massive control. At the intersection of the two, a number of crossroads emerged leading to the management of training, marginality, madness, delinquency, vocation, efficiency, liberty, and so on; that is, the fields of interventive action known today as child and educational psychology (a means of giving cohesiveness and homogenization to collective identity), psychopathology and forensic psychology (a means of controlling abnormality and sociocultural deviation), and industrial and organizational psychology - a means of implementing and managing the population's productive resources.

As was only natural, this common Western project was approached dif-

ferently in each country: questions were faced and actions were taken in line with particular socio-cultural idiosyncrasies (Castro, Lafuente, 2007). Between 1874 and 1898, the reactionary utopia of Spanish scholasticism tended to ignore the obvious changes undergone by social reality at the time. Indeed, until nearly the end of this period, when the last overseas colonies of the Spanish empire were lost to the U.S., the Scholastics continued to interpret this reality in terms of a rural society oriented towards eternity. The reply of “sinful” Spanish liberals and positivists in this same period, on the other hand, was to denounce the illness of apathy of the Spanish people. Such was the outcome, in their opinion, of four centuries of thought and action of Catholic inspiration. To them, the foolishness of the Spanish Catholic Empire had led to a historical exhaustion of the collective mind – character, mentality, temperament – which by the end of the 19th century was only capable of engaging itself in an idle, dreamy evocation of glorious past deeds (Wulf, 2003).

In this context of psychologization of social reality (Castro 2004), the aim of liberalism was to find the psycho-physiological sources of collective activity, diagnose its atavistic and dysfunctional evils (basically, its energetic exhaustion as a result of its confusion and excesses), and alleviate them through a re-invigoration of the body and a re-education of the mind. Thus, while liberal factions held reforms and interventions to be necessary and urgent, traditionalist factions and, above all, their ecclesiastical ideologues faced an entirely different problem. Made responsible by the liberals for the sad state of the “Spanish soul” (Juliá, 2004; Morón, 1996), from the beginning of the 20th century the Spanish Scholastics were forced to relax the already analysed strategies of resistance, as well as make important adjustments in their entrenched traditional values and dogmas. Actually, by this time, Spanish Scholastics had become aware that their nostalgic approach was already overcome by an obviously unstoppable sociocultural change.

In this respect, from the beginning of the 20th century, the new ideologues of Spanish Scholasticism – such authors as Marcelino Arnáiz, Francisco Barbens, Federico Dalmáu y Gratacós, Fernando María Palmés, Juan Zargüeta, and Manuel Barbado – assumed the task of revising their reactionary view of the productive activity and moral responsibility of the Spanish citizen. Furthermore, they became actively engaged in the supervision, development and implantation of three characteristic psychological technologies – education, psychotechnics and psychopathology – which were to base the new model of citizenship demanded by modernity. Important influential factors in this dramatic change of attitude were Leo XIII’s various encyclical letters fostering a reasonable adjustment to modern times; the psychosociological work of Cardinal Mercier in Leuven, where many Spanish Scholastics were trained; and the new ideas from Catholic contemporary authors like Lindworsky, Fröbes or Geyser, whose works were profusely translated into Spanish from 1900 on. (The form taken by this new attitude of scholastic psychology towards Spanish social reality within this new context of renewal was examined in detail in Castro, Lafuente & Jiménez, 2008).

But what should be emphasized about this period is that, in spite of its modernizing commitment, Spanish scholasticism did not really go beyond the principles and rigid sociocultural structure implied in Catholic dogma. Furthermore, the use of the new psychological technologies was aimed at reinforcing the classical idea of a perfect order governing the earthly world in the image and likeness of the unearthly, eternal one – as authors such as Ortí, Polo, González or Eleizalde had held. In particular, from 1900 on, psychological technologies were used to read in a scholastic key two processes successfully launched by liberalism: the nationalization of the people, as opposed to intersubjective links based on responsibility and Catholic moral values; and industrialization, as opposed to the productive activity typical of rural societies. In this latter respect, a discourse on *Moral factors of our social reform*, delivered by the neo-scholastic priest Juan Zaragüeta in 1938, is very enlightening indeed:

As stated above, division of labor is simply based on the existence of limits in the exercise of human activity. It is complemented by the existence of differences, in either quality or degree, in human ability. These abilities, combined also with different inclinations, are exercised in an environment of inexhaustible variety, thus increasing the coefficient of cultural differences in both dimensions. Hence, a new social problem: the so-called “professional guidance and formation” problem, whose aim is to have every social function held by those who may best serve it, thus ensuring maximum profit from social ‘vocations’ (Zaragüeta, 1938, pp. 15–16).

It is interesting to note that these words were pronounced precisely one year before the end of the Spanish Civil War, because they are clearly premonitory: for they succeeded in sketching the logic of a fascist technocracy, where, thanks to professional or vocational guidance, every subject could be made to occupy a place or play a social function defined according to the degree or condition of the individual’s natural abilities; an attribution, needless to say, that individuals were led to accept, on the same intellectual and moral principle that induced them to acknowledge natural authority and order – or, in non-euphemistic terms, God. Thus, the new productive strategies of an industrial society and the moral engagement with the common good came to join forces with the old Catholic dogma in what, from 1925 on, was known as “National-Catholicism” (Fox, 1997; Quiroga, 2006). After the civil war, with the victory of the rebel army in 1939, the term came to be used to name the official ideology of Franco’s regime – a regime, like all other fascist systems, obsessed with the ideas of social “order” and strictly controlled “progress.”

To conclude, it need only be pointed out that throughout the nearly 40 years of existence of a Francoist regime in Spain, while the moral dimension of liberalism (free thinking) continued to be “a sin,” its productive logic (that of an industrial society) succeeded in articulating the activity and identity of

millions of Spanish citizens. One way or another, the social utopia dreamt of by Félix Sardà and other scholastic thinkers one hundred years earlier had finally come true.

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Francesco Umberto Saffiotti and the measuring of children's intelligence

Glauco Ceccarelli*

1. Introduction

According to recent historiographical studies, the Italian testistic movement was more or less contemporary with that of the other countries in which the psychological disciplines developed most during the 19th and 20th centuries (Ceccarelli, 2002). It was, in fact, in 1896 – only six years after Cattell's famous work of 1890 – that Guicciardi and Ferrari published an article entitled *I 'testi mentali' per l'esame degli alienati – Note di psicopatologia individuale* [Mental tests for examining the insane – Notes on individual psychopathology] in the *Rivista Sperimentale di Freniatria*. Shortly after, in 1905, Guicciardi also published details of the tests used in the Psychology Laboratory at the Psychiatric Institute of Reggio Emilia, presenting a list of no fewer than 74 tests.

Although the first tests used in Italy were mainly imported, there were also some interesting attempts to construct psychological and psycho-pathological evaluation procedures. The most important of these, although very different from each other, are Giulio Cesare Ferrari's *Interrogatory* (Ferrari, 1900; Francia, Ferrari, 1912) and Sante De Sanctis's *Reattivi* (De Sanctis, 1905; De Sanctis, Bolaffi, 1914; cf. Ceccarelli, 1999).

2. Main characteristics of Italian tests

The above-mentioned research also involved a comparison of certain underlying aspects of the evolution of testistic theory and practice in Italy and abroad. Both the main similarities and the more relevant differences between the diverse contexts were highlighted, and light was thus thrown on those connotations peculiar to Italy.

As regards the “roots” of testing in particular, it should be first pointed out that certain fundamental ‘steps’, the theory of which relates to the age-old ‘mind-body’ problem, are distinguishable at an international level. The

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first step was that from "the concept of measuring only the *physical* dimension of man," which, in its time, was a significant acquisition, to "the concept of measuring that dimension as an external 'indicator' of the internal, mental dimension." A second, "still more significant step," which was outside the anthropometric perspective in its strictest sense, consisted of abandoning this perspective in favour of an epistemologically alternative, decreesingly reductionist approach, which shifted "the focus of research on mental phenomena from physical data to 'products of the mind' expressed in language-use and behaviour" (Ceccarelli, 2002, p. 15).

These steps can be glimpsed in the network that connects, albeit in a non-linear way, the physiognomical, organological and phrenological perspectives, on the one hand, and decidedly physico-anthropometric approaches, on the other, to the pioneering studies of Galton and Cattell, through those of Binet. They are also evident in the 1916 historiographical analysis by Francesco Umberto Saffiotti, an Italian scholar who incontestably deserves to be rediscovered, and to whom the present work is devoted.¹

Saffiotti, referring to a wealth of particularly important sources of his time, maintained that the developments, the critical points, were such "precisely because man has, most understandably, moved from the 'visible' to the 'non-visible', from the material to the non-material level, moving from a simpler, more concrete and immediate, almost intuitive, approach, to a more complex and difficult one" (ibid., pp. 15-16).

Any attempt to identify the 'roots' of testing within such epistemological developments and "breaks," reveals that there are at least two. The first, which is most evident at an international level, is indisputedly the *anthropometric root*, which clearly embodies the *quantificationist* vision of science particularly visible in the work of Galton (1883) and his student Cattell. The second is the *psychiatric root*, which is connected to the 'need for mental diagnosis' (Goodenough, 1949), and which, at the same time, seems to mainly derive from psychiatry's need to provide itself with more suitable diagnostic tools (Rieger, Bondy, 1974). If we were to attempt to define these roots with respect to horizons that even today constitute different areas of the psychological-scientific fabric, we might say that the former is more connected to the field of experimental psychology (even though experimental psychology is not actually concerned with individual differences - Goodenough, 1949; Ceccarelli, 2002), whereas the latter would seem to be nearer to clinical psychology.²

In the case of Italy, the available historiographical data suggest that the role of the psychiatric root is the more significant of the two, particularly if we take into account the principal scientific-professional sphere of the first authors to devote their attention to tests.³

Regarding analogies, the above-mentioned research enables us to identify two distinct "generations" of tests in Italy. "The first seems more closely linked to laboratory procedures, and is anything but clearly distinct and distinguishable from them [...]. The second is characterized by being much

less linked to, and more clearly distinct from, the experimental generation, with regard not only to the types of 'apparatus' used (there was a shift towards simpler 'equipment'), but also to the aims, which tended towards the overall evaluation of intelligence and its 'deficits', rather than towards the examination of a plethora of human 'capacities' (which are not considered part of some organized, unitary 'vision')" (Ceccarelli, 2002, p. 19).

A further analogy relates to the difference between a test and an experiment (ibid.), which, for a certain period, both in Italy and abroad⁴, was anything but clearly established, as can be inferred from some of the writings of Ferrari, De Sanctis, and other authors (ibid.).⁵

There are, moreover, some other specific features of the origins of Italian testing (beginning with the existence of an important branch of second-generation Italian tests) in the type of questioning used in the psychiatric field. Another significant feature was the general lack of explicit and validated interpretative rules. "This absence, at least in the first interrogations, was accompanied by the certainty of knowing just what constitutes normality, which questions could distinguish it, and what the correct answers – 'demonstrating normality' – were" (ibid., p. 49). "Added to this are the lack of statistical 'norms' derived from applying the tests to large samples of subjects, to which the individual performances or responses might be related, notwithstanding certain interesting precursors introduced by Guicciardi. This situation would, however, gradually evolve, partly as a result of the emergence of the problems of *delivery* and *validity*, which some authors began to tackle by establishing equal 'instructions' for all of the subjects, and by finding external criteria with which to compare the results obtained from the different tests" (ibid.).

Finally, it should be remembered that the Italian testistic movement is also characterized by a conspicuous interest in Binet and Simon's "metric scale," which led to studies, research projects, verifications, checks, comparisons and suggested modifications. Those employed in such work included De Sanctis (1914), Ponzo (1914), Graziani (1918), and Vidoni (1922), as well as Saffiotti.

3. The contribution of Francesco Umberto Saffiotti

3.1. *Biographical notes*

Francesco Saffiotti, a now all but forgotten⁶ scholar of numerous psychological interests, was born in Barrafranca (Enna), Sicily, in 1882 and graduated in Philosophy in 1906 at the University of Messina, under the supervision of Giovanni Dandolo. From 1909 he was assistant to Zaccaria Treves at the Civic Laboratory of Pure and Applied Psychology in Milan. In 1911 he participated in the First International Congress of Pedology, held in Brussels, and from 1913 he worked as an assistant at the Institute of Anthropology at

the University of Rome, under the direction of Giuseppe Sergi. During the First World War, he was nominated Superintendent of the Office of Psychophysiology of Military Aviation in Turin. In 1916 he published his most important work, *The measurement of intelligence in children*. In 1917 he obtained a teaching qualification in Experimental Psychology from the University of Rome. In 1920 he was nominated professor without tenure for the same discipline at the University of Palermo, and gave the official opening lecture of the course on 28 February 1920 (Saffiotti, 1920). Already enrolled as a student of Medicine, in 1922 he participated in the International Congress of Applied Psychology, held in Milan, and in the National Congress of Psychology in Naples. In 1926, he was in Milan to organize a Laboratory of Psychology for the National Association for the Prevention of Accidents at Work. He died in Milan on 20 October 1927.⁷

3.2. *Studies on intelligence*

Along with Zaccaria Treves, Francesco Umberto Saffiotti made an important contribution to the study of intelligence and its measurement. The two scholars did not construct a new test, but instead submitted the Binet-Simon Scale to a very careful and thorough 'check', noting a whole series of 'critical points', and eventually proposing a new version of the tool, modified above all in its criteria of evaluation.

In particular, Saffiotti devoted a long volume to the question of the measurement of intelligence during the formative years; this was published in Rome in 1916 by the Society of Anthropology.⁸

3.2.1. The historical-methodological analysis

In this work, which was highly "state-of-the-art" in terms both of the Italian contributions and of those from abroad (and boasted a bibliography of over 600 titles), in a section dedicated to the *determination of intelligence in relation to mental and physical characteristics*, Saffiotti focused primarily on two questions that he considered fundamental:

- a) By what criterion is it possible to determine the intellectual value of the individual, in order that this value can be related to the single elements studied?
- b) Considering that this criterion is recognized as being legitimate to the aim, is the result of the evaluation of intelligence applicable as a safe and necessary diagnosis with respect to the single individual under examination?

To provide an answer to such questions, the author has developed several arguments, accompanied by an abundance of international quotations. Concerning the first question, he concluded that

considered in its totality, intelligence may be evaluated by assessing the individual mental elements that constitute it, and the conditions by which it is determined and within which it acts. And this is how [...] (Saffiotti, 1916, p. 16).

Regarding the second question, which is discussed more briefly, he asserted that such a global evaluation of intelligence was not, in an absolute sense, applicable to individual diagnoses.

Indeed, if we too had a precise and complete outline of all the intrinsic and extrinsic elements that determine the intellectual reaction of the individual, and if, by examining the single elements, we could obtain some measurement indexes, and from these indexes an overall value that is representative of them, such a value would have no meaning unless compared with the values obtained from other individuals [...].

What was needed, in fact, was

a comparison between numerous observations, because the expressive index of an individual's intelligence acquires a meaning which, if it is relative to the total body of individuals, is indirectly absolute for the individual, inasmuch as it determines the position on the general scale of all the intelligences with which it has been compared (ibid., p. 17).

And it was in the context of such a historical reconstruction, centred on the principal theoretical and methodological questions, that the author came to his own definition of *intelligence*, a term which he took to mean "that series of mental activities, interconnected and mutually interfering, by which the individual assumes a personal reaction with respect to knowledge and action" (ibid., p. 13).⁹

Later, based on a careful examination of the scientific literature of the time, he set out his own classification, which comprised four principal methods:

1. the method of psychosomatic correlations;
2. the method of psycho-physiological correlations;
3. the method of analytic psychical correlations;
4. the method of total psychical correlations.

Within this last category, which related to the methods that he considered preferable, he mentioned and briefly illustrated *De Sanctis's mental tests*, *Rossolimo's psychological profiles*, *Ferrari's rapid psychological examination*, *De Sanctis's intellectual formula*, and *Simon's new tests of mental level*.

3.2.2. An examination of Binet and Simon's 'metric scale': checks and observations

The second part of the book regarded the *measurement of intelligence in relation to mental age*, and examined Binet and Simon's "metric scale of intelligence" in detail, in its subsequent versions (Binet, 1905, 1908, 1911; Binet, Simon, 1905a, 1905b). Specifically, after having meticulously described the French scholars' test, Saffiotti made wide reference to numerous research projects – some conducted in Italy, many carried out abroad – to examine and discuss various far-reaching problems: the growing order of difficulty of the tests and the different age groups to which they were to be given, the influence of educational level in the order and suitability of the tests to different age groups, and the technique and evaluation of the tests.

With this objective in mind, he presented detailed results of the application of the 'metric scale of intelligence' in the various examinations, the result of a research plan mapped out and realized in collaboration with Treves. The plan was, however, only partially realized, for reasons specified by Saffiotti himself, the most important being the premature death of Treves (in 1911); and instead of the anticipated 2,300–2,500 subjects, only 962 were examined, 406 of whom were from the first school year, 295 from the third year and 261 from the sixth (Saffiotti, 1916, pp. 135–137).

Thus, referring to the data collected, and to a careful examination of the scientific literature, mostly from overseas, Saffiotti believed that he could suggest various improvements to the 'scale'. However, he was of the opinion that the criticisms thus far directed by various authors towards the 'Scale' itself were generally of 'secondary' character: that is, they did not question the very foundations of the method. They were, however, criticisms with which he agreed, singling out, above all, those relating to the attribution of the tests to different age-groups, which in several experiments (including his own) had given results that differed from those of Binet, and also those concerning the substantial equivalence – as maintained by Binet, but in Saffiotti's judgement unacceptable – between the 'mentality' of a mentally deficient adult and that of a child of equivalent mental age. A further observation, which the author deduced from personally conducted experiments, regarded the use of data obtained from individual subjects through application of the scale, which was considered questionable inasmuch as it was potentially loaded with not insignificant consequences on the educational 'career' of the subjects, but also based on a technique that was not yet sufficiently reliable. The observation, of a theoretical nature, according to which the progression of the intelligence would not be as regular as Binet had thought was also of particular importance.

3.2.3. The proposal suggested by Saffiotti and Treves

Basing his work on these elements, Saffiotti, while recognizing the value of the system conceived by the French scholar, stated the need to introduce certain very important variations: he proposed a new and original approach aimed at *measuring intelligence in relation to mental grades*, now known as the 'Treves-Saffiotti method', which was used by the two authors following the partial realization of the above-mentioned 'plan of investigations' at the Laboratory of Psychology in Milan.¹⁰

The method was based on two main criteria:

- a) the mental development of children of the same age-group, differentiated according to the amount of schooling received; therefore for every class it is necessary to arrange as many test-groups as there are age-groups of pupils. Basically, instead of measuring intelligence in relation to age only, we assert that one must measure intelligence in relation to both age and school year;
- b) the test-groups for each age-group in the individual classes may constitute, according to the rising level of difficulty of the tests themselves, three grades of difficulty which correspond to three grades of intellectual capacity (*ibid.*, p. 139).

As for the salient characteristics of the new evaluation technique, here is the 'summary' that Treves and Saffiotti made in a paper published in 1911, a few years before the volume mentioned here.

- a) In general, about thirty of the tests proposed by B.-S. actually provide a fairly continuous series of increasing difficulty for the children in the 1st school year, in the order obtained by us: an order which is nothing like the one proposed by B.-S., but which, according to our results, also differs for the various groups of pupils of the 1st year.
- b) The degree of difficulty corresponds to the frequency with which the tests are passed; so we have a group of easy tests, passed with a frequency of 60% to 100%, another group of medium difficulty, passed with a frequency of 40% to 60%, and finally a third group of rather high difficulty, passed with a frequency of 20% to 40%.
- c) As we consider that the most difficult tests – that is, those passed with a frequency of 0 to 20 percent – are not adaptable to the subjects we examined, specifically because it is difficult to pass them, we divided our subjects into 3 groups, 3 grades of intelligence as it were, which we call: *Weak (W)*, those children who pass all or some of the tests that, according to our results, are passed with a frequency of 60 to 100 percent; *Medium (M)*, those children who pass all or most of the tests that, according to our results, are passed with a frequency of 40 to 60 percent; *Strong (S)*, those children who pass all or most of the tests that, according to our results, are passed with a frequency of 20 to 40 percent.

The indication of the test to be taken and, consequently, the grouping by percentage, varies, for the same class, according to the age of the subject. The assignment of a subject to one of the 3 grades, *Weak*, *Medium*, *Strong*, is made according to whether the subject passes the majority of the tests assigned to the group of the next grade up (Treves, Saffiotti, 1911, pp. 53-54).

Once the three 'grades' of intelligence had been distinguished, Treves and Saffiotti made further adjustments to the technique, above all taking account of the fact that, as happens with any attempt of a 'typological' nature, the majority of the subjects did not fit precisely into the prefigured categories - for example, by passing all of the tests of the level below theirs, the majority of those in their own level, and none of those in the level above. The authors thus introduced a series of 'subcategories', actually obtained by combining the three 'grades' in different ways, and formulating precise standards for assigning the subjects to one or other of these groupings.¹¹

The Treves-Saffiotti method, which Saffiotti himself improved and developed - to a greater extent than is described here - in a work published in 1916, was designed to overcome some of the limitations discovered by the same authors in the "metric scale," by introducing the notion of 'mental grade' in place of 'mental age', and establishing appropriate criteria for determining this. The advantages that would result from such an approach were described by Saffiotti as follows (Saffiotti, 1916, pp. 243-244):

Whereas with determination of the "mental age" we have an indication only of an advantage or defect in mental development, with determination of the "grade" we also have, in our opinion, a more expressive and important indication for the evaluation of mental capacity, namely that which expresses the fundamental characteristic: in other words, the grade tells us that a subject has a mental ability to overcome some difficulties and not others, tested by means appropriate to the average of the subjects, shows that the complex of his or her mental activities is directed, at least [during] the period of the experiment, towards one type rather than towards another.

The study by Saffiotti and Treves, which, from a technical point of view, undoubtedly presents a degree of complexity and laboriousness, was thus born of a 'dissatisfaction' which, although not yet clearly worked out and developed at the time, showed a certain, in some ways 'avant-garde', attention, no longer only towards the *quantitative*, but also towards the *qualitative*. And not only this: as the step that follows will testify, albeit it in a barely noticeable way, attention was increasingly focused not exclusively on the 'products' of intellectual activity - that is, on the performance, in terms of the number of correct responses - but also on the 'procedural' dimension of that activity, demonstrating, even in this case, a sort of intuition of 'developments' that would later be pursued by other authors in Italy and, to a greater extent, abroad.

Basically, we may frame the problem in the following way: is the grade of intelligence of any subject characterized by the capacity to proceed according to the level of difficulty, or is it characterized by the capacity to solve certain difficulties and not others? Now, it is clear that the response to the first question is affirmative, but this does not tell the whole story; while, admitting as a postulate the growing development of intelligence concomitant with physical development and with the conditions of training and education, what is important is not so much to find out *how far* it proceeds, but rather *how* it proceeds, because 'how far' may vary as a result of multiple, not always identifiable, causes, while 'how' represents the direct expression of the fundamental characteristic of one's intellectual capacities (ibid., p. 244).

3.3. *The international dimension*

At an international level, Saffiotti and Treves's ideas have been taken into consideration by various authors including Binet¹², Hildreth¹³ and Decroly. The latter author, notably in his 1928 work (co-written with Buyse) concerning the practical application of mental tests, takes an in-depth look¹⁴ at the "Treves-Saffiotti method," including it among "Foreign adaptations and critical revisions," in a list of the works of prominent scholars, such as the above-mentioned Decroly, Goddard, Meumann, Bobertag, Weigl, Terman, Kuhlmann, Jaederholm and Burt.¹⁵ Decroly stresses, among other things, that:

Saffiotti, en fin de compte, ne se montre pas d'accord avec Binet sur la signification de l'échelle métrique en tant que moyen de mesurer l'intelligence sans culture; l'intelligence, pour Saffiotti, se développe par l'action du milieu, et ce milieu, pour les enfants, est principalement l'école où l'instruction tient la première place.

He adds:

Pour lui, si l'intelligence ne peut se développer elle-même et si ce développement n'a lieu que par l'action des facteurs extérieurs, c'est-à-dire par l'éducation et par l'instruction, on ne peut mesurer l'intelligence pure; si l'intelligence comme expression suprême de la personnalité psychique démontre la capacité d'adaptation d'un individu à la vie sociale et chez les enfants au travail scolaire, les tests ne peuvent mesurer que par approximation cette capacité d'adaptation, et toute méthode qui se borne à ce but ne peut avoir qu'une valeur pédagogique et non exclusivement ni absolument psychologique (Decroly, Buyse, 1928, pp. 39-40).

Decroly then describes in detail the contents of the paper that Saffiotti was to present at the First Congress of Pedology (Brussels, 1912), extracting them from Saffiotti's own research, to reach the following concluding evaluations:

Quoi qu'il en soit, il ne semble pas que les observations de Saffiotti aient eu une répercussion quelconque sur les révisions proposées aux tests de Binet; c'est que sans doute ses vues théoriques n'ont pas été vérifiées dans la pratique, ou encore que le procédé d'évaluation qu'il a proposé s'est montré peu ou pas applicable. [...] La graduation de Binet, qui admet le retard de l'âge mental par rapport à l'âge réel, celle de Stern, qui établit le rapport entre l'âge mental et l'âge réel, ou encore, s'il s'agit d'adultes, celle qui recherche le rapport entre le nombre de points obtenus par rapport à la moyenne ou au centile moyen – tout cela est beaucoup plus parlant et plus utilisable pour des fins pratiques (*ibid.*, p. 43).

4. Concluding note

The sources consulted in the course of this research reveal that Saffiotti is rightfully recognised as having played an important part in the early 20th century debate on the measurement of intelligence, which followed on the publication of the Binet-Simon Scale. Indeed, the author develops, notably in his main work (1916), a systematic examination of the problems inherent in the subject, both at a historical-theoretical level and at a methodological-technical level. In this work, in addition to demonstrating a vast, up-to-date and in-depth knowledge of the international research, even during the difficult war years, he makes a detailed and cogently argued analysis of the Binet and Simon test, and of the numerous examinations conducted by other scholars, especially from overseas. He also presents a significant quantity of data – collected with Treves as part of a precise research plan – and on the basis of these data he formulates a series of observations concerning the Binet-Simon Scale. Having fine-tuned his system, he puts forward a proposal for modifying the test created by the two French scholars, focusing in particular on the evaluation criteria, and thus arrives at the “Treves-Saffiotti method.”

Saffiotti has also enjoyed a certain diffusion abroad, and has been taken into consideration by various authors. Of these, it was Decroly who made the most extensive exploration of his work, which he deemed serious and noteworthy, even if his final verdict was hardly, favourable, especially as regards its practical application.

Nevertheless, it is worth noting that in the international literature of his time, as far as it has been possible to verify to date, Saffiotti is the only Italian cited among the scholars who submitted Binet's “Scale” to a critical examination, and who put forward proposals for its revision or modification.

- 1 This work is intended as a presentation of only the more salient aspects of Saffiotti's work, in anticipation of further historiographical investigations, relating both to the study of intelligence and to the methods used to measure it, and also to other themes in which he was interested.
- 2 For the sake of precision, it should be remembered that Goodenough's examination also refers to an "educational need," traces of which can be found both in Europe and in the United States: the development and construction of Binet and Simon's Scale can be specifically traced back to this need.
- 3 It should be remembered that Ferrari, Guicciardi, De Sanctis and their collaborators were trained in psychiatry. The prevalence of a root that can be traced back to such a sphere is just as apparent with regard to the first-generation tests as it is for the second-generation tests, above all if we consider the aims for which such tools were employed (cf. Ceccarelli, 2002).
- 4 As is clear, in particular, from the research carried out by the American Psychological Association in 1916 (cf. Ceccarelli, 2009a, in press - b).
- 5 It should be noted, however, that this "enduring lack of clear distinction between test and experiment applies, above all, to the 'first-generation' tests" (Ceccarelli, 2002, p. 48).
- 6 Some recent works aimed at a "recovering" this author are, however, worthy of mention: Sprini, Inguglia & Intorrella (2003), Intorrella (2008), and Ceccarelli (in press - b).
- 7 Francesco Umberto Saffiotti's biography, which provided the essential information about him, was kindly provided by the scholar's son, Umberto, born in Milan but currently living in the United States. I am grateful to him and to Laura Romano, whose investigations led to my discovery of his existence. Other details of the life and work of Saffiotti are to be found in the works of Sergi (1927), Sprini, Inguglia & Intorrella (*op.cit.*), and Intorrella (*op.cit.*).
- 8 The complete title of the work is: *La misura dell'intelligenza nei fanciulli - Esame critico delle proposte di misura finora fatte e contributo d'indagini personali* [Measurement of intelligence in children - A critical examination of the measurement proposals thus far put forward, with a contribution based on personal investigations].
- 9 Saffiotti, together with Treves, had already formulated a definition of this, according to which "intelligence results from the greater or lesser aptitude of the individual to grasp the theoretical and practical value of his or her ideas and actions, in such a way as to understand how to control and adapt to the external environment, to produce the effects that seem useful" (Treves, Saffiotti, 1911, p. 49).
- 10 In 1908 Zaccaria Treves (1869-1911) became director of the Laboratory of Psychology of the Community of Milan, a 'continuation' of a similar laboratory founded in 1898 at Crevalcore, near Bologna, by Ugo Pizzoli.
- 11 "Moreover, to establish norms for the sub-classifications, pupils are judged as follows: *Weak-weak (Ww)*, those who pass all or some group *W'* tests but no group *M* or *S* tests; *Weak-medium (Wm)*, those who pass most group *W'* tests, some group *M* tests, and no group *S* tests; *Weak-strong (Ws)*, those who pass most group *W'* tests and some group *S* tests; *Medium-weak (Mw)*, those who pass most group *M* tests but no group *S* tests, or who make several mistakes in the group *W'* tests, not compensated for by the number of tests passed, if any, in group *S*; *Medium-medium (Mm)*, those who pass most group *M* tests plus all group *W'* tests and no group *S* tests, or whose mistakes in group *W'* can be quantitatively compensated for by successes in group *S*; *Medium-strong (Ms)*, those who pass most group *M* tests plus all group *W'* tests and some group *S* tests, or whose successes in group *S* outnumber the mistakes in group *W'*; *Strong-weak (Sw)*, those who pass most group *S* tests but fail some group *W'* tests; *Strong-medium (Sm)*, those who pass most group *S* tests and all group *W'* tests, but fail some group *M* tests; *Strong-strong (Ss)*, those who pass most group *S* tests and all group *M* and *W'* tests" (Treves, Saffiotti, 1911, pp. 143-144).

- 12 It was Saffiotti himself who sent Binet the news of the studies he had conducted with Treves. Binet responded: "Laboratoire de Psychologie Physiologique de la Sorbonne/ Direction – 5 Aout 1911 – Samois s/Seine, près Fontainebleau Seine et Marne, France. Mon Cher Collègue, je reçois à l'instant l'étude que vous avez faite avec le regretté Dr. Treves sur la méthode de Simon and de moi. Je vois que les conclusions en sont très sévères. Il n'importe. Je vous félicite de votre long travail. Je vous prie de le résumer vous-même, en français, dans l'Année Psychologique. Je vous offre 10 pages pour cela, à la condition que votre manuscrit me parvienne le 1^{er} Janvier 1912. Voulez-vous? Ecrivez-moi le plus tôt possible. Sentiments bien dévoués. A. Binet." This letter was kindly made available by Saffiotti's son, Umberto, by way of Laura Romano (see note 8). My thanks to them both.
- 13 Hildreth's 1933 work is a logical catalogue (but without descriptions or evaluations) of various types of test, and it mentions two of the works by Treves and Saffiotti (1910, 1911), in a section dedicated to *Binet tests and revisions* (p. 28). In the same work, the articles of Guicciardi and Ferrari (1896) and of Francia and Ferrari (1912) are also cited, respectively in the section regarding *Tests of mental capacity - General and unclassified* (p. 45) and in that concerning *Character and personality tests - Personal inventories* (p. 170). A work by De Sanctis (1906) is also mentioned, where Hildreth lists "Tests of mental capacity - Pre-school and kindergarten levels" (p. 32).
- 14 Decroly and Buyse dedicate a whole seven pages to the presentation and discussion of the proposal of Saffiotti and Treves (Decroly, Buyse, 1928, pp. 37-43). They also cite Saffiotti, the only Italian mentioned, in a table outlining the main international research projects relating to the attribution of the various tests to the different mental ages, from which significant discrepancies arise between the data reported by the various authors, and also between this data and that of Binet, a phenomenon moreover determined by Saffiotti himself in his own research (*ibid.*, pp 48-49).
- 15 As regards the international dimension of the work of Italian scholars of Saffiotti's time, it is interesting to note that Decroly and Buyse also deal, albeit briefly – in three pages – with De Sanctis's *Reattivi*, including them among the main tests aimed at individual mental examination, alongside those of Binet and Herderschée. These are their evaluations, taken from a previous work (Decroly, Degand, 1907): "1. Les tests de S. de Sanctis exigent pour leur emploi un matériel spécial assez compliqué; 2. Ils ne tiennent pas assez compte de l'âge; 3. Ils exigent des connaissances scolaires (tests 4 et 6); 4. Un certain degré d'instruction, voire même l'habitude d'entendre répéter certaines formules, peut influencer sur les réponses. [...]; 5. Plusieurs épreuves sont trop verbales, aussi voyons-nous certain anormaux (sourds, aphasiques) acculés à des difficultés à franchir. Mais il ne faut pas demander à une méthode plus qu'elle ne peut donner; aussi, devons-nous dire que, malgré les imperfections que nous avons constatées, nous reconnaissons au procédé de S. de Sanctis certaines qualités essentielles: il est basé sur la psychologie, il est gradué, il est rapide. Il permet cependant moins bien que les épreuves de Binet de différencier les divers degrés d'insuffisance mentale; en outre, il nous paraît parfois imparfait lorsqu'il s'agit, chez les sujets dépassant sensiblement 7 ans, de distinguer la débilité de l'état normal" (Decroly, Buyse, 1928, pp. 66-67).

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The origins of psychology in Rome: the contribution of Giuseppe Sergi (1841-1936)

*Elisabetta Cicciola**

1. Introduction

In Italian historiographical literature, Giuseppe Sergi – who was a Sicilian supporter of Garibaldi, a known evolutionist and the first professor of anthropology and psychology at the University of Rome “La Sapienza” – is considered, with Roberto Ardigò (1828-1920) and Gabriele Buccola (1854-1885), a scholar of the first generation of the emerging Italian scientific psychology, who promoted, through his scientific and institutional work, the rise of the “new” psychological science (Cimino, Dazzi, 1998; Lombardo, Foschi, 1997; Degni, Foschi & Lombardo, 2007).

In their interpretation of Sergi's psychological works, most Italian historians have focused their attention almost exclusively on his materialistic approach, which derives from his reduction of psychic phenomena to physiological phenomena (Bongiorno, 1998; Cimino, 1998; Lombardo, Foschi, 1997; Marhaba, 1981; Mucciarelli, 1982, 1984, 1987).

However, Sergi's positivism and materialism were just two of the many interests of this prolific Sicilian scientist who should be remembered as one of the main representatives of a psychological science which, in the second half of the 19th century, was reaching out from the laboratory to meet the social needs of Italy, a country which, after its unification in 1870, found itself facing various political and social problems, in particular relating to infancy and education.

Sergi's scientific, institutional and educational activity was, in this sense, one of the milestones in Italian psychology. In fact, he trained various scholars of international renown who introduced a series of interesting initiatives, particularly in the field of infantile psychology, such as Sante De Sanctis (1862-1935) – the first professor of psychology to enjoy an international reputation, the founder of infantile neuropsychiatry in Rome and the organizer of the Italian academic psychology – and Maria Montessori (1870-

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1952) – the educational reformer whose *Method* (1909) is still considered a classic of behavioral science (Cimino, Lombardo, 2004; Foschi, 2007, 2008; Lombardo, Cicciola, 2006, 2007). Sergi had also taught Giuseppe Montesano (1868-1951), the Roman pioneer of infantile psychiatry. Three associations for the cure of the children and teacher training were founded in Rome between the end of the 19th century and the beginning of the 20th: the “De Sanctis Institution” by De Sanctis, the “Ortophrenic Training School for Teachers” by Montesano, and the “Montessori Institution” by Montessori. These were all fruit of the culture that Sergi had helped disseminate at the end of the 19th century. These associations for the cure and the education of normal and pathological children are still a point of reference for the pedagogical sciences in Rome.

In addition, in 1897, together with Enzo Sciamanna (1850-1905) – a Roman academician and neuropathologist influenced by Jean Martin Charcot (1825-1893) and by the Salpêtrière school – Sergi had founded the first Italian journal to make explicit reference to psychology, the *Rivista quindecimale di psicologia, psichiatria e neuropatologia ad uso dei medici e dei giuristi*. This journal has now been almost completely forgotten and there are very few works which examine the important role played by Sergi in Rome, and his influence on the human sciences and Italian psychology.

2. The intellectual and institutional profile of Giuseppe Sergi

Giuseppe Sergi was born in Messina on 20 March 1841 and lost his father when he was thirteen. In 1860 he abandoned his law studies – and, it is said, never returned to them – in order to join Garibaldi’s “red shirts” and take part in the battle of Milazzo.

His son Sergio Sergi remembers Giuseppe as a self-taught man who accumulated an encyclopedic knowledge ranging over a wide variety of fields (Sergi S., 1935-1937).

After getting an Italian secondary school philosophy teaching diploma, he taught in Messina, Benevento and then in Milan; in 1879 he succeeded in obtaining a professorship in theoretical philosophy at the Scientific-Literary Academy of Milan and in 1880 he took over the chair of Anthropology at the Faculty of Humanities of the University of Bologna (ibid., pp. V-VI). He was deeply influenced by Spencer’s evolutionism and became one of the main promoters of Italian Positivism. In his autobiography he referred to himself as a naturalist rather than a faithful follower of Comte’s Positivism (Sergi, 1886/Mucciarelli, 1987). Sergi showed a deep knowledge of the works of Herbert Spencer (1820-1903) – whom he popularized in Italy by translating both his moral and sociological works – and of the Anglo-Saxon world in general. In fact, in a lot of his works there are quotations from such authors as George Henry Lewes (1817-1878) and William Benjamin Carpenter (1813-1885) (cf. Bongiorno, 1998). In addition, Sergi was interested in “German”

psycho-physiology, even though, unlike Wilhelm Wundt (1832-1920), he studied themes concerning evolutionism and science of education in some depth. The latter was a subject which he would continue to study until his old age when he published an important work, *Psiche, genesi, evoluzione. Osservazioni e commenti dall'infanzia alla maturità*, a collection of a number of observations on his son Sergio and his little grand-daughter Maria.

Historiography has already showed that the Anglo-Saxon and German traditions are the basis of experimental psychology in several countries. In addition to the example of Sergi in Italy, it is necessary to remember that in France, the manual level of experimental psychology was founded by Théodule Ribot (1839-1916) soon after the publication of the famous texts on English and German psychology (cf. Ribot, 1870, 1879).

As regards the relationship between Sergi and Ribot, it should be pointed out that, in his *Revue Philosophique*, the latter published twelve reviews of some of Sergi's works – [*Elementi di Psicologia* (1879); *Sulla natura dei fenomeni psichici: studio di psicologia generale* (1880); *Il senso dei colori nella percezione* (1882); *Teoria fisiologica della percezione. Introduzione allo studio della psicologia* (1881); *L'antropologia moderna* (1882); *La stratificazione del carattere e la delinquenza* (1883); *L'origine dei fenomeni psichici e la loro significazione biologica* (1885); *La psychologie physiologique* (1888); *Psicosi epidemica* (1889); *Psicologia per le scuole* (1891); *Dolore e piacere. Storia naturale dei sentimenti* (1894); *Les émotions* (1901)] – and was responsible for the translation made by the editor Félix Alcan of *Gli elementi di psicologia*, a work written in 1879 that was published in France in 1888 with the title of *La psychologie physiologique* (cf. Sergi, 1879, 1888).

In 1873-1874, Sergi printed a small volume on *Principles of Psychology*, which was adopted in those Italian high schools that offered a new vision of psychology as a discipline belonging to the positive sciences and far removed from the stereotypical view of it as philosophy concerned with the quality of the soul. The greatest merit of this volume was that of showing clearly the ambitious and strongly interdisciplinary plans to establish psychology as an autonomous subject with a scientific basis in anthropological, ethnological, linguistic and physiological research (Sergi, 1873-1874).

The results achieved by the new psychological science, which Sergi and others were continuing to promote, induced him to request – in a memo dated 14 January 1876 and addressed to Ruggero Bonghi (1826-1895), who as well as being Minister of Education, was also a philologist, an Italian MP and a man of letters, and to the Members of the Higher Council of Education – the creation of a professorship of psychology in recognition of the progress made by the new discipline (Sergi, 1876). In his memo, Sergi emphasized the independence of psychology from philosophy and pointed out how psychology was an anthropological science: “its exclusive object is man in certain special manifestations, such as physiology: it is a science based on observation and experiment and it is connected to some of the historical sciences, which illuminate and support it. It seems to be one of the most difficult and important anthropological sciences” (pp. 5-6). In conclusion, Sergi proposed that the new

psychological science be taught in a course of at least two years: “the first year should deal with general psychology, the second with special psychology and its comparative, historical and pathological relationships” (p. 12). Although the memo was long and well-documented, his request was never fulfilled and all he succeeded in obtaining was, a few years later, a “private course” of psychology which he taught in 1878–1879 at the University of Messina (cf. Marhaba, 1981, p. 45).

After abandoning the attempt to establish autonomous professorships of psychology – the first would not be created until 1905–1906 (cf. Lombardo, Cicciola, 2005) – in 1883 Sergi won a public competition for a professorship in anthropology at the Faculty of Science of the University of Bologna. The following year he moved to a science faculty in Rome – the newly proclaimed capital of the Kingdom of Italy, which had been freed from the temporal power of the Catholic Church more than twelve years earlier – in order to teach anthropology, or the natural history of man as it was described in European intellectual circles. Once in Rome, Sergi set up a number of initiatives, such as the Institute of Anthropology, in which he wanted to include a museum-laboratory, a laboratory for research into the human brain and a laboratory of physiological and experimental psychology (Manzi, 1987; Bongiorno, 1998). The Laboratory of Physiological and Experimental Psychology was established by Royal Decree 6548 of 15 December 1889, the year in which the first laboratory of experimental psychology, directed by Henri Etienne Beaunis (1830–1921), was set up in Paris (cf. Cicciola, 2009). The Roman laboratory, headed by Sergi, enjoyed the support of the Minister of Education, Paolo Boselli (1838–1932), who in a description of its opening for King Umberto I, wrote:

Of the various scientific developments of our century, psychology is by no means the least important. Philosophers used to study psychic phenomena through simple subjective observation, as if they had no relation with the organs of life; physiologists and pathologists showed that it was impossible to understand and explain them outside this intimate organic relationship and adopted objective observation and experiment. Naturalists then took an interest in psychology and, by means of comparison – which is a wonderful instrument for rational explanations and discoveries – discovered that psychic phenomena are a display of life. So, for physiologists and naturalists, psychology has become a branch of biology and has taken its place among the natural sciences. This has given rise to new methods of research into psychic phenomena, while scientific instruments and mathematical applications have led to a refining of the objective methods of observation and experiment so that to regulate their appearance and to induce some general laws on the great individual variability of phenomena. A special branch of psychological science, known as *psychophysics*, has emerged. This is a very useful support for the naturalist psychologist since it can be used to complement the objective observations of experimental and compared psychology.

These studies are as advanced in Italy as in our fellow nations; they simply require some kind of structuring at an institutional level to ensure further progress for science and for the studies of the young scholars which should not be left behind with the new conquests of science itself.

For this reason, we have decided to set up a laboratory of *experimental psychology* at the University of Rome – a special section of the school of anthropology, which has been already in existence for some years, with a laboratory, a museum and a special professor to run it and teach in it. The laboratory of experimental psychology will aim to study psychic phenomena as natural phenomena and therefore to investigate them with objective methods and with experiments, where possible, and to train young people in observation and the carrying out of experiments; in this way the laboratory will contribute to the advancement of psychological science and will provide the young with a clear awareness of the nature of the psychic facts.

We think much of all this since psychology is today universally acknowledged as the basis of all social sciences and the main instrument of explanation of social phenomena.

The professor of anthropology will direct the laboratory of experimental psychology and will offer his support to the young scholars in their research and experiences by giving his lectures there (Boselli, 1890, pp. 109-110).

The laboratory of experimental psychology, one of the first in Italy, was then set up in the rooms of the “Roman College” where it became a section of the Institute of Anthropology annexed to the Faculty of Physical, Natural and Mathematic Sciences. Sergi himself was placed in charge of it and the Institute of Anthropology changed its name to the *Institute of Anthropology and Experimental Psychology*. It should be pointed out that Sergi, in addition to his role of professor of anthropology, continued to give free courses in psychology, first in Bologna and then in Rome: the free course on “comparative and experimental psychology” and the complementary course in “physiological psychology” (Regia Università degli Studi di Roma, 1897, p. 118; cf. Sergi, 1886/Mucciarelli, 1987). These early teaching experiences would give rise to the autonomous teaching of experimental psychology in Rome with an annexed laboratory, both, teaching and laboratory, entrusted to Sante De Sanctis (Cimino, Lombardo, 2004). In recognition of his involvement in the birth of Italian scientific psychology, Sergi was appointed President of the V International Conference of Psychology, held for the first time in Italy. The conference took place in 1905, a year which would bring significant and highly promising developments in Italian psychology: in fact, this was the year that Giulio Cesare Ferrari (1867-1932) founded his *Rivista di psicologia applicata alla pedagogia e alla psicopatologia*, the first scientific psychology journal to focus on the applicative, while just two months after the conference, Leonardo Bianchi (1848-1927), a freemason psychiatrist and Minister of

Public Education, announced the first open competition for a professorship in experimental psychology (Bianchi, 1905; cf. Lombardo, Cicciola, 2005).

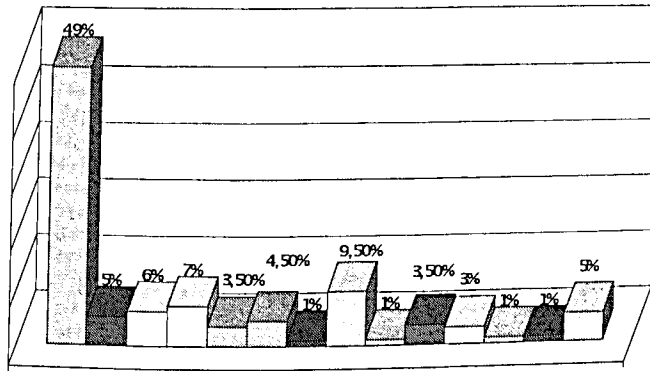
In 1916, after reaching the mandatory retirement age, Sergi left teaching but continued working productively for many years; in fact, his last publication, which he edited when he was about 94, was published posthumously in 1937 in the *Rivista di Antropologia* (Sergi S., 1935-1937).

Sergi's academic achievements were remarkable as well; in fact, it was he who pressed for the establishment of the Roman Society of Anthropology (1893) and he was also behind the foundation, in 1911, of the *Rivista di Antropologia*, which became the official organ of the Society itself. Moreover, he founded, edited and collaborated on several journals such as the *Rivista di filosofia scientifica* [founded and edited by Enrico Morselli (1852-1929), which was issued in ten volumes from 1881 to 1891], the *Rivista italiana di Sociologia* (published in Rome from 1897 to 1921), the *Rivista di Sociologia: scienze sociali, politiche e morali, biologia, psicologia, antropologia, pedagogia, igiene, storia della cultura* (published in Rome from 1894 to 1898), the *Rivista quindicinale di psicologia, psichiatria e neuropatologia* (published in Rome from 1897 to 1899), the *Rivista di Pedagogia e Scienze affini* (published in Rome from 1899 to 1901) and the journal *Educazione e Istruzione* (published in Turin). The last two, in particular, are an interesting source for the reconstruction of the history of emerging psychology in Italy. This is another example of Sergi's interdisciplinary approach, which aimed at the full elaboration of a science of man based on the integration of natural and human sciences.

Sergi was a versatile scientist and naturalist as well as a prolific scholar (he wrote about four hundred works); the fact that he began publishing in 1868 and continued until the year of his death is evidence of an unfailingly fertile mind. He was interested in anthropology, psychology, craniology, criminal anthropology, characterology, philosophy, pedagogy, sociology, law and biology (cf. table "Sergi's Publications") and firmly believed that philosophy should be replaced by anthropology, a "comprehensive science" of all the aspects of the human being, including the anatomic-physiological, biological, pedagogical, social, historical and, above all, psychological.

At the age of almost one hundred, and still in possession of all his mental faculties, Sergi died in Rome on 17 October 1936.

Sergi's publications



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| <input type="checkbox"/> anthropology | <input checked="" type="checkbox"/> psychophysiology | <input type="checkbox"/> general psychology |
| <input type="checkbox"/> pedagogical psychology and pedagogy | <input type="checkbox"/> evolutionism & biology | <input type="checkbox"/> criminal anthropology |
| <input checked="" type="checkbox"/> characterology | <input type="checkbox"/> craniology | <input type="checkbox"/> politics |
| <input checked="" type="checkbox"/> philosophy | <input type="checkbox"/> sociology | <input type="checkbox"/> law |
| <input checked="" type="checkbox"/> eugenics | <input type="checkbox"/> others | |

Conclusions

Giuseppe Sergi's thought and works, like those of Ardigò, Buccola and many other positivist intellectuals, contributed to the emergence, at the beginning of the new century, of a very strong epistemological awareness of the need to establish psychology as an autonomous science, with its own principles and theories and with specific techniques of enquiry (cf. Cimino, 1998). This awareness led the so-called second generation of psychologists to insist on the importance of creating autonomous professorships in experimental psychology, laboratories independent of psychiatrists, physiologists, anthropologists and philosophers, and journals specialising in psychology studies. The autonomy of the discipline was nevertheless built on the solid foundations laid by the fathers of Italian psychology, of whom Sergi was one.

It is also necessary to specify that adhesion to evolutionist positivism led Sergi to cultivate the study of human psyche on a biological basis, which ended up leading him to a materialist and reductionist position. For this reason, his psychological contribution has often been undervalued or neglected by scholars. In fact he should be considered first as a qualified first-generation psychologist who was deeply involved in the struggle for the autonomy of the discipline. Moreover, his contributions to applied psychology in the pedagogical and criminological fields are extremely interesting, to the extent that Maria Montessori, in her seminal work of 1909, *Il Metodo della pedagogia scientifica applicato all'educazione infantile nelle Case dei Bambini*, acknowledged his key role in the shift towards scientific pedagogy of which, at least at an early

stage, physical anthropology and experimental psychology were fundamental roots (cf. Foschi, 2007, 2008).

It should be pointed out that, in the psychopedagogical field, he proposed, after examining their potential social utility, a number of educational and rehabilitative interventions addressed to the oligophrenics on the basis of a eugenic point of view.

His theory on emotions also deserves to be mentioned. It was fully expounded in 1894 in *Dolore e Piacere* (a work which was also translated into French and Spanish), and one is struck by the fact that it was at least contemporaneous with, if not antecedent to, the studies of James and Lange (cf. Luccio, 1987).

We must finally stress that some historians of Italian psychology have underestimated the applicative role already played by our discipline at the end of the 19th century especially in complex societies undergoing modernisation, such as Rome at the turn of the 20th century. Sergi himself was a complex character, whose adhesion to positivism is only one of his multiple aspects. It is worth pointing out that he was not an isolated case in European culture but embodied the expression of an eclectic science deriving from evolutionism which contributed to the foundation of a new conception of psychology as a discipline aiming to play a concrete role in society.

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The "subjective perception of time" and the use of the tachistoscope in the early 20th century Italian research

*Guido Cimino, Silvia Degni**

1. Introduction

The study of the "subjective experience of time" was a key subject of research in experimental psychology in many European laboratories in the first half of the twentieth century. Against the background of the first developments in the "new" psychology, with its aspirations to be considered a "science", and the Wundtian definition of its object of investigation as "immediate conscious experience," there emerged a distinction between "mental [and] psychological time" (also referred to as phenomenal or internal or subjective time) and "physical time" (called external or objective time).

The latter is time as defined in classical physics, that is to say, "a fourth dimension of objects, which is to be added to length, width, and thickness, and whose characteristics are uniqueness, continuity and indefinite divisibility" (Vicario, 1973, p. 89). It is conceived of as an ideally reversible series of instants that are all equal, and is represented as a straight line, in which each point constitutes an instant. Physical time is that which can be measured by special instruments such as clocks.

The term "psychological time," on the other hand, is used to refer to the conscious experience of temporality, which is a complex, diversified, elusive experience, totally unlike the idea of "physical time" as an immobile container of natural phenomena. The problem of time in the psychological sphere was, then, that of clarifying what the conscious experience of temporality consists of, and the different ways in which it presents itself.

Thus began the experimental study of the ways in which human beings perceive time. Psychologists, while aware of the various philosophical views on time and prepared to take account of these, generally tried to steer clear of the questions relating to the nature of the idea of time and of its corresponding reality, preferring to concentrate their analysis on the subjective experience of temporality.

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Cimino is author of the §§ 1., 2.

Degni is author of the §§ 3., 4., 5.

Following on the tradition of psychophysical research, experiments usually consisted of asking the participant (the subject) to respond to physical stimuli (prevalently visual and auditory) for very brief times – using an instrument designated for this purpose, such as the tachistoscope or the “complication pendulum” – and then of establishing a relation between the “objective” duration of the stimuli and the “subjective” perception of their duration. In particular, the experiments attempted to ascertain which subjective and objective factors played a part in the perception/evaluation of the duration of the stimuli, whether there was a constant occurrence of errors in such an evaluation, and how the temporal duration was perceived by the participant when presented with the stimuli at variable intervals (Zakay, 1990; Grondin, 2001). This early research – initially developed in Germany by K. Vierdort (1868), W. Wundt (1874), J. Kollert (1883), M. Mehner (1885), V. Estel (1885), R. Glass (1888), M. Ejner (1889), H. Münsterberg (1889), E. Meumann (1883), F. Schumann (1890) and others – took its place within the tradition of psychophysics (Vicario, 1973; Cimino, Foschi, 2004).

Psychophysics – as is known – arose as a science of the relations between the physical and mental; that is to say, it regards the study of the relations that exist between physical stimuli and the corresponding mental phenomena that originate from them (visual, tactile, gustatory, and olfactory perceptions of which we have experience). So, while “classical” psychophysical research dealt with physical stimuli and particular sensory perceptions, in the study of the experience of time the relations between the “objective” duration of physical stimuli and the subjective perception of the duration came into play. What was missing in the latter case was a sense organ of time and a corresponding nervous structure, which at that time was totally unknown.

This kind of research was also conducted in Italy, where three psychologists – Vittorio Benussi (1878–1927), with investigations carried out in the Graz laboratory between 1907 and 1913; and subsequently, in the 1920s in the psychology laboratory of the Institute of Higher Studies in Florence (today the University of Florence), Enzo Bonaventura (1891–1948) and Renata Calabresi (1899–1995) – concentrated their attention on the temporal experience; their work was recognized and discussed at an international level (Giovannelli, Mucciarelli, 1978; Antonelli, 1996, 2000; Gori-Savellini, 1984, 1986, 1993, 1996, 1998; Albertazzi, Cimino & Gori-Savellini, 1996).

In this paper we shall briefly illustrate the theoretical-methodological approach adopted, the kind of experiments performed, and the main achievements of these Italian scholars in the early decades of the twentieth century, with particular reference to the experimental techniques and instruments that they designed and created for this purpose.

2. Theoretical and methodological assumptions in the study of the subjective experience of time

The Italian psychologists had pointed out that, from a theoretical point of view, the experience of "the passing of time" ("internal or subjective time") is a derived experience with respect to a still more primitive one, the experience of "phenomenal change." Our consciousness is presented with a constant variety of phenomena; and this "diversity," of which human beings are immediately aware, is indissolubly accompanied by the experience of a "temporal order" among the phenomena, which are actually ordered into *present*, *past*, and *future* events. Time is, therefore, a characteristic of change, not only because there cannot be change without time, but also because each change lasts a certain interval of time, or requires a duration in order to take place (Stern, 1897).

In their study of the temporal experience, the Italian psychologists concentrated their attention especially on the so-called microstructure of time, that is to say, on the perception of the present, of simultaneity, and of succession, as of the instant and of the temporal interval or duration, in which very brief times come into play.

The method adopted for this research is the one which can be defined as "phenomenological," a method that Benussi had learned in Graz from Meinong, just as Bonaventura and Calabresi had from their mentor Francesco De Sarlo, and from Brentano himself, who had resided at length in Florence (Albertazzi, 1993; Gori-Savellini, 1993; Antonelli, 1996). As we know, this method foresees the observation and direct "grasp," without any preliminary analysis or "elementist" decomposition, of the immediate datum of consciousness, of the phenomenon just as it presented itself to a genuine and not artificial introspection: in such a case the subjective perception of time.

According to the three Italian psychologists, however, the introspection practised had to be an "experimental introspection," in accordance with the Benussian maxim that "without introspection, psychology is not possible; with introspection alone, scientific psychology is not possible" (Benussi, 1925, p. 13). In an "experimental" method thus conceived, the psychologist's role in realising and actuating the experiment proved to be fundamental, while less importance was attributed to the attitude and training of the participant in the experiment, which had been considered the basis both of Wundtian introspection and of the "systematic experimental introspection" (*Systematische Selbstbeobachtung*) of the Würzburg School psychologists (Kölpe, 1920). The guarantee of the scientific nature of Benussi's "experimental introspection" was connected to the number of experiments conducted with the same participants, the multiplication of tests, the maintaining of control over the variables, and especially the formulation of conclusions that took into account the multiplicity of the variables involved and the convergence of the experimental data with respect to the initial hypothesis.

3. The tachistoscope and the study of the subjective experience of time: Wundt and Benussi

The experimental methodology in the study of the experience of time required the use of particularly precise instruments, by means of which it would be possible to measure and acquire quantitative data in milliseconds. The tachistoscope was the "prince" of instruments in this type of research, since it offered the possibility of presenting a visual stimulus for a very brief and measurable time.

The first kind of tachistoscope was the one created by Wundt. It meant that it was possible to determine the presentation time of a stimulus by means of a mechanism regulated by weights that made a "screen" drop down. This, in turn, caused the fall of a shutter that covered the stimulus-object and allowed it to be seen through a slit for a pre-determined time, depending upon the speed of the screen's fall (fig. 1). In line with his "elementist" approach, which aimed at identifying the last and no-further-decomposable elements of the content of consciousness, using this instrument Wundt had tried to measure the learning that takes place in very brief times, in order to identify the elementary "act of apprehension" (or perception), that is to say, the mental process that implies the *presentation* of an object-stimulus, the *attention* concentrated only on it, its *recognition* and immediate *memorization*. He maintained that this "act of apprehension" is achieved with a presentation of the object-stimulus for approximately 10 milliseconds, which is to say, in a time so brief as to prevent the attention from shifting or fragmentizing.

Wundt had then established that the *maximum* number of elements present to consciousness with a single act of apprehension (that is to say, the maximum number of elements that it was possible to "apprehend" with a presentation of 10 milliseconds) was of 4 to 8 elements, which were in fact immediately and simultaneously acquired without the attention shifting from one to the other (Wundt, 1874; Cattell, 1886; Meumann, 1883; Glass, 1887; Estel, 1885).

The number of elements apprehended was, moreover, dependent upon the nature of the elements themselves (for example, whether they were a meaningless succession of letters, or letters that formed a word) and upon the training of the participant. However, considering the speed of the presentation, it was certain that the act of apprehension would be single, because there would not be sufficient time for the attention to shift from one element to another. Wundt's instrument consequently tended above all to provide the possibility of studying a psychological phenomenon in a greatly reduced time, measuring the individual capacities for apprehending one or more stimuli in the least possible time.

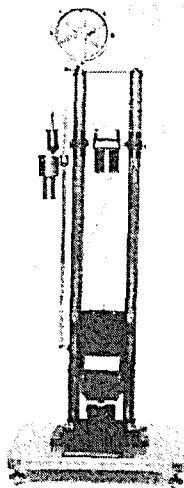


Fig. 1: Gravity operated falling shutter tachistoscope

Benussi's theoretical-experimental approach was unlike Wundt's. Indeed, it aimed at investigating perception, and in particular the perception of time, as a global and unitary event that could not be subdivided into the sum of several elementary phenomena. The focus of the Benussian investigation was not represented by just the objects of experience, but rather by the relation between the latter and the psychological processes. Benussi's attention was directed, in particular, towards the conditions in which the presentation of a stimulus-object took place. This, in fact, was presented with some "inappropriate contents" that the subject unknowingly made use of in his/her perception of the object and evaluation of the duration (for example, an object presented in certain conditions of brightness, in certain dimensions, etc.).

On the basis of such theoretical-methodological assumptions, Benussi devised a particular tachistoscope presented in Rome in 1905 on the occasion of the 5th International Congress of Psychology. The instrument consisted of a rotating aluminium disk that allowed observation of the stimulus-objects for a very brief preestablished time by means of an oscillating movement, regulated by variable weights. There was a slit of an adjustable width, connected to a projection apparatus, that allowed visualization of the stimulus-object on a screen (fig. 2).

Benussi's tachistoscope, the exact name of which was "tachistoscope for collective experiments," allowed above all the simultaneous performance of experiments with a number of participants observing the same object on the screen (Benussi, 1906). This characteristic of the instrument made it easier to identify common tendencies towards error and to point out the existence of irreducible individual differences among the various participants. The latter element was central to the Benussian theoretical-experimental approach, which considered the role of the perceiving participant essential in the perceptive process (fig. 3).

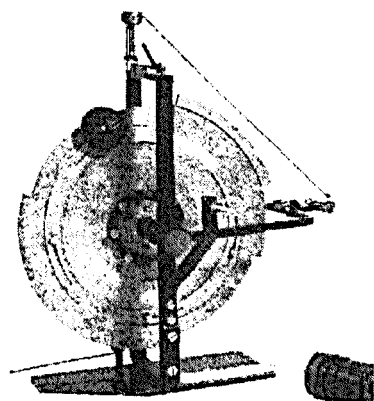


Fig. 2: Tachistoscope for collective experiments

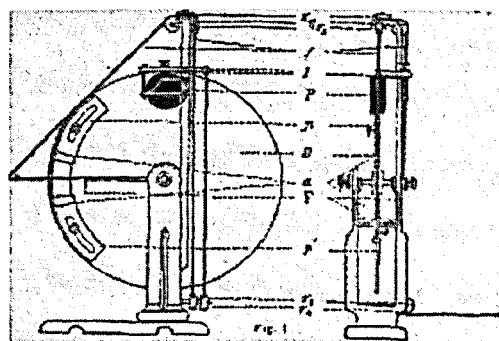


Fig. 3: Illustration of the experimental apparatus of Benussi

The instrument also made it possible to vary the exposition times of the stimuli from 5 to more than 100 milliseconds and assured the absolute constancy of the exposition times, since its movement was regulated exclusively by gravity.

Finally, this experimental apparatus made it possible, while leaving unvaried the stimulus-object, to change the conditions in which it was presented (for example, the intensity of the brightness or the dimensions of the object) and thus to observe how these influence the perception of the object and the evaluation of time. It also made it possible to observe the individual differences among the various participants, as these differences became evident from the varying "responses" to the variation in the conditions of presentation of the same object.

As far as the temporal experience is concerned, in the second decade of the century Benussi conducted a series of experiments in which he presented participants with a succession of visual or auditory stimuli, all contained within different comprehensive "temporal intervals" (from 90 ms to 2070 ms and more). From the results of the experiments, he concluded that if the totality of stimuli is presented in a brief temporal interval, then the subject does not perceive the temporal segment as such, but only the succession of the first and last (the succession of the "limiting" stimuli). However, if the interval of their total presentation time is lengthened, then they are perceived as a "temporal segment," that is to say, as a "duration." He thus inferred that in the first case, the perception of the limiting stimuli is due to an act of synthetic and unifying apprehension, and instead, in the second case, to an analytical act of distinction that places the stimuli in succession and perceives their duration.

Benussi also performed a series of experiments in which he varied the "prominence" of the stimulus-objects and concluded that if between two objects presented in succession it is the first one that has greater "prominence" (for example, with greater illumination or a larger size or a more acute sound), then the perception of the total presentation time of the two phenomena tends to be briefer. If, on the other hand, the "prominence" is placed in the interval of time between the first and second presentation (for example, with the introduction of a "pause" that activates the specific form of attention that consists of "waiting"), then the total perceived time tends to be longer (Benussi, 1913).

4. The experiments of Bonaventura and Calabresi

A few years later, during the 1920s, Bonaventura and Calabresi, in confronting the same problem of the subjective perception of time, concentrated their attention on the duration of an "act of apprehension" (or of perception). They assumed that the "subjective" time of apprehension of an object-stimulus (that is to say, the time of its acquisition as a content of consciousness, or rather, the time necessary for the stimulation, attention, recognition, and memorization of

the object, referred to also as the “span of apprehension”) was greater than the “objective” time of its presentation. In other words, they assumed that the duration of the tachistoscopic presentation was briefer than the duration of the apprehension, which is prolonged well beyond the exposition time of the object-stimulus.

In order to verify this hypothesis, the Florentine researchers thought that it would be necessary to elicit in the participant two successive acts of apprehension, while varying the temporal interval between the presentation of two distinct stimuli, so as to establish the briefest interval in which it was possible for the subject to apprehend both, in a distinct and complete manner, without any interference between the apprehension of the first stimulus and of the second one. In this way, it was possible to measure the time of apprehension of an object-stimulus – given precisely by the duration between the presentation of the first object and of the second one – and to verify that this time was longer than that of the simple presentation of the object. To this end, it was necessary to have an instrument that made it possible to present two successive stimulus-objects in very brief times and to regulate the interval between the two presentations, keeping the two objects aligned so as to avoid any “waste of time” in the subjects’ having to move their eyes and adjust their sight.

Having excluded the instruments with continuous rotation, which involved the movement of the stimulus-objects and various other drawbacks, Bonaventura devised and constructed a new type of tachistoscope suited for this purpose: the “double tachistoscope with gravitational fall” (Bonaventura, 1924). This instrument, created on the basis of Wundt’s original device that utilized a gravitational fall mechanism, allowed the presentation of two subsequent stimulus-objects, each one for a predetermined time, while allowing the perfect regulation of the temporal interval between one presentation and the other (fig. 4).

Briefly, the front screen, triggered by an electrical command, would fall first, knocking down a “curtain” shutter and exposing a small card visible through a slit for a length of time determined by the speed of the fall. Then the same screen, falling, would knock down the first card by means of some protruding prongs and cause the back screen to fall, which allowed a view of the second card for a predetermined time. The elements to be apprehended were posted on the cards.

Bonaventura’s “double tachistoscope” thus made it possible to measure the minimum time that had to pass between two presentations in order to have two distinct and complete acts of apprehension, without any interference between the first and the second.

The instrument could be used within the sphere of a wide range of research, and it was adopted in particular for measuring the “psychological present” or “experience of

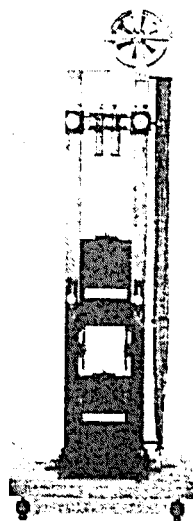


Fig. 4: Double tachistoscope with gravitational fall

the present." With such an expression, Bonaventura and Calabresi defined the experience that establishes between a group of events a temporal bond of belonging to a single more complex entity, that is to say, the unitary and synthetic perceptive act that achieves in a "present" the integration of several elements acquired in a brief interval of time.

"In our consciousness – wrote Bonaventura – which is basically a unifying function of multiplicity, a certain segment (but only one) of the change is grasped as an organic and indivisible unity; and this segment – the psychological present – is subjectively provided with that very particular note that is the consciousness of relevance to the present, and is objectively determinable in its limits of content and duration" (Bonaventura, 1929, p. 173). More recently, Fraisse illustrates the concept of "psychological present" when he writes: "My present is a tick-tock of the pendulum; it is the three beats per measure of the waltz rhythm; it is the phrase that I hear; it is the cry of the passing bird. All the rest has already passed or belongs to the future. In this present there is [...] a form of simultaneity that regards the unity itself of my perceptive act" (Fraisse, 1967, p. 91).

What then is the duration of such a unitary and synthetic perceptive act, of such an experience of events that are connected like a single phenomenon? What is the duration of that which we perceive as "present," and which is differentiated from that which we regard as "past" and as "future"?

This problem, for Bonaventura, was connected to that of the duration of the act of apprehension. From an operative point of view, in fact, he believed that the "psychological present" could be measured by determining the minimum temporal interval necessary for consciousness to acquire (that is to say, to thoroughly apprehend) the maximum number of elements with a single act of apprehension. Drawing on and completing the experiences and conclusions of Wundt, he maintained that it is possible to apprehend a maximum of 6 to 8 elements (for example, letters or syllables or words or figures or numbers) with a single act of apprehension, that is to say, in a presentation that varies from 3 to 10 milliseconds. In that case the duration of the "psychological present" is given by the minimum temporal interval that elapses between a first presentation of the duration of 3 to 10 milliseconds, of 6 to 8 elements, and a second presentation of the same duration of a similar group of elements, without any kind of disturbance or interference taking place between the two apprehensions.

Bonaventura's tachistoscope also proved to be useful for studying other aspects of the perception and evaluation of time. In particular, the two Florentine psychologists thought of adopting it, with a few modifications, for investigating the objective and subjective factors that intervene in the evaluation of the duration of events that occur in longer temporal intervals. To this end, they felt the need to devise a tachistoscope that would permit the consecutive presentation of more than two stimulus-objects, and they came up with the "multiple tachistoscope," which, with the help of an electric motor allowed the presentation of several objects in succession,

regulating the temporal interval between one presentation and the other. With accurate and meticulous investigations concerning the evaluation of the duration of a series of stimuli, they then tried to identify the "objective" factors that depended upon the characteristics of the stimulus-objects (their form, colour, position, etc.) and upon the temporal intervals between the presentations, and diversely the "subjective" factors connected to the symbolic and emotional content of the objects perceived. For example, they prepared experimental situations in which the subsequent tachistoscopic presentations tended to draw the subject's attention in different directions, owing to the nature and "prominence" of the stimulus-objects and to the temporal intervals, that is to say, to the "pauses" that activated the emotional factor of expectation (Bonaventura, 1929; Calabresi, 1930).

5. Experimental results

The research of Italian scholars was important firstly because they succeeded in evaluating – at about 700 ms – the minimum duration of the "psychological present," that is to say, the minimum time necessary for an act of apprehension and unification of distinct elements. This experimental evidence confirmed the theory of William Stern, who maintained that the present has a duration and is made up of distinct units, and confuted the theories proposed by other psychologists according to which the present has no duration and only represents a moment that divides the past from the future (Clay, 1882; Stern, 1897).

The psychological present, as defined by the Italian psychologists, can be correlated with that which, in the contemporary cognitivist perspective, is called "sensory register" or "sensory memory," which is to say, a storehouse of memory of very brief duration (1-2 seconds), capable of preserving the information as a subservient copy of the sensory stimuli. A copy whose existence has been experimentally demonstrated by Sperling in 1960 by means of an experiment very similar to those carried out by Bonaventura and Calabresi (Sperling, 1960).

Secondly, the research of Benussi, Bonaventura, and Calabresi showed that the psychological present, which is the minimum time necessary for an act of apprehension and unification of distinct objects, is differentiated from the instant, in the sense of the minimum time necessary for the presentation of a single element so that it can be perceived. Indeed the former has the dimensions of about one second whereas the instant would have a duration comparable to 3 ms.

Thirdly, the results of the experiments seemed to provide an answer to the problem of how distinct elements are unified in a "present": that is to say, whether such a unification depends upon their "objective" occurrence or upon the intervention of a subjective "act of production," namely, of apprehension and unification. This question had been the subject of heated

debate among those who sustained the objective existence of single points of time that were learned, and those who instead – notably Meinong – maintained the intervention of an “act of production” that constructed the subjective temporal unity (Stern, 1897; Meinong, 1899; Schulze, 1908). The results of the Italian scholars, in fact, seemed to be in line with those of Meinong, who maintained that the temporal unification of heterogeneous elements is due to the “synthetic activity” of consciousness.

Fourthly, from the research of Benussi, Bonaventura, and Calabresi, it clearly emerges that objective time and phenomenal (or subjective) time do not coincide. The relation between objective and subjective time is that of a relation between two radically different scales of measurement. In objective time there is a sequence of instants measured on the basis of milliseconds; subjective time, on the other hand, has a structural unity of a qualitative kind that eludes direct quantification. While it is possible to obtain a precise measurement of the objective time in which events occur, we have a more elusive dimension of the subjective time in which they are experienced. Indeed, while an event objectively occurs in a determined time, the same event lived and experienced occurs in a dilated time, since we perceive it together with what has just passed and with what we anticipate as the immediate future. In the experience of the present, we do not grasp just a “temporal point,” but rather a “temporal segment” of which the point is the limit.

In these conclusions, there is an evident reference to Husserl’s “retentional-protentional aura,” which counters a “time of the object” – autonomous and related to the comparison between “preceding,” “simultaneous,” and “successive” – with a “time of representation,” based upon that “temporal aura” of elusive borders, which draws from the past and projects into the future (Husserl, 1893–1917; Twardowski, 1894; McTargatt, 1988).

In addition, as far as the evaluation of duration is concerned, Bonaventura and Calabresi succeeded in formulating two laws of a general kind: 1) evaluation changes with the variation of the symbolic and emotional content of the events that have occurred and been perceived; 2) the greater qualitative richness of the representation of the events brings about an underestimation of the duration.

Lastly, from the comparison between the “classical” tachistoscope, widespread in the European laboratories since the time of Wundt, and those “modified” by Benussi and Bonaventura, there emerge substantial differences, not only and not so much on account of their diverse capabilities of performance, but especially because of the differences in the theoretical models and investigative objectives underlying such instruments. Furthermore, the examination of the theoretical-methodological framework and of the experimental devices at the basis of the research programs of the three Italians shows how the technical equipment is not theoretically neutral or accessory, but instead directly intervenes to clarify and define the phenomenon to be studied.

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This paper focuses on the theory of social groups within the context of social disorganization and reorganization.

Znaniecki's concept of social disorganization refers primarily to institutions and secondarily to individuals. Just as the organization of a group incorporated in socially systematized behaviour schemes – imposed in the form of rules for individuals – never coincides perfectly with the organization of an individual life, which is also systematized in schemes of personal behaviour, so too social disorganization never corresponds exactly to individual disorganization (Thomas, Znaniecki, 1968, Part III), as he had already explained in *The Polish Sociological Review* (*Polski Przegląd Socjologiczny*), the journal which he began publishing in the 1920s.

Even in a hypothetical social group wholly free of internal differences, that is a group where each member accepted all socially established behaviour rules and no others as the scheme for his/her behaviour, each member would seek to systematize these schemes in a different way, in line with his/her personal evolution, and would seek to organize his/her life differently, so that neither his/her character nor his/her life would be the same as that of the other members of the group.

In reality such a group is implausible, because even in less differentiated groups we find socially established behaviour rules that are openly applied to certain classes of individuals, while others are not compelled to use them in the organization of their behaviour; in the same way we can find individuals who in the organization of their behaviour use personal schemes that they have themselves invented as well as the traditional social rules. Moreover, it must be remembered that the process of social differentiation is accompanied by the development of specific institutions that are essentially composed of a systematic organization of a certain number of socially selected schemes for the permanent realization of certain results.

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Institutional organization and the individual life organization by which institutional activity is socially realized are partly superimposed. However, a single individual cannot fully realize in his/her life the whole systematic organization of the institution, because the latter always requires the cooperation of many individuals, while an individual has many interests outside of a given institution.

There is naturally a reciprocal dependence between social organization and the organization of an individual life, and it is precisely this interconnection that is the subject of my paper.

If we take social disorganization to mean a decrease in the influence of the existing social rules of behaviour on the members of a group, this reduction can range in degree from the isolated violation of a particular rule by a single individual to the general decadence of all institutions of the group.

This kind of social disorganization does not present a univocal connection with individual disorganization, which consists of a reduction of the individual's ability to organize his/her own life in order to ensure the most effective pursuit of his/her fundamental interests.

The individual violation of some or of many of the social rules of his/her group is a result of an incapacity to interiorize and to give a sense to the prevailing social conventions, while the imposed behaviour schemes are in total contrast with a more efficient and satisfying desired individual life organization.

The social organization of a group can be permanent and strong, in the sense that no opposition to the rules and to the existing institution is shown. This absence of opposition, however, can simply be the result of a lack of interests of the members of the group together with a rudimental, mechanical and ineffective organization of a life. Naturally, strong organization of a group can also be the result of a conscious moral effort by its members and can consequently correspond to a very high level of life organization by each individual (Znaniński, 1968).

So it is not possible to deduce individual organization or disorganization from social organization or disorganization, or vice versa. In other words, individual morality does not necessarily correspond to social organization, nor does individual corruption necessarily correspond to social disorganization.

Social disorganization is not an exceptional phenomenon limited to specific historical periods or social realities. Individual violations of social rules are part of group dynamics and in some cases they also have a disorganizing influence on group institutions; if they are not neutralized, they can increase, acquire a social sense and lead to the breakdown of the established schemes.

Periods of social stability are characterized by the elimination of disorganization through social sanctions which reinforce the group identity. So the stability of institutions can be summarized as a dynamic balance between processes of social disorganization and reorganization. This balance, when disturbed by the processes of disorganization escaping from the control of the sanction, flows into a transition phase – disorganization which leads to the dissolution of the dominant group. This process is usually neutralized before this

point by a new process of reorganization that does not consist in this case of a simple reinforcement of decaying codes, customs and values, but of the creation of new schemes of behaviour and new institutions that better correspond to the changes required by the group (Znaniecki, 1919). For Znaniecki, the creation of new schemes and institutions can be defined as **social reconstruction**. Social reconstruction is possible only when members of the social group have not become individually disorganized during the period of social disorganization. The reorganization works by introducing new and more efficient management of personal life and the expression of constructive tendencies in individual activities designed to produce new social institutions. In the study of disorganization, as in every field of scientific theorization, the causality of dynamics must be applicable to the majority of cases, i.e. we have to analyze its concrete complexity in terms of simple facts to be subordinated to less or more general laws of a causally determined development (Gallino, 1968).

In social reality a causal fact contains three elements; that is, an individual or social effect always has a composite cause containing both an individual-subjective and a social-objective element.

So we can define as "Attitudes" the subjective socio-psychological elements of social reality, and as "Social Values" the social, objective elements that are imposed on the individual thus causing him/her to react. Acceptance or refusal (rebellion) are not exclusively the result of external influence but the consequence of an external influence summed to a certain predisposition.

To explain the cause of the presence of a social value, a scheme of behaviour, an institution or a material product, we cannot point to a certain individual or psychological phenomenon – defined by Znaniecki as "will," "feeling" or "reflection" – but we have to consider the preexisting objective social data as a part of the real cause, which, in combination with a subjective attitude, originated the examined effect (Znaniecki, 1925). In other words we have to explain a social value through an attitude acting on the preexisting social value; the context of reference acts unequivocally on the individual incentives.

Remaining in the field of the social disorganization, let us analyze the birth of attitudes that can weaken the effectiveness of existing rules of behaviour, thus causing social decadence. If each social rule is the expression of a precise combination of attitudes, then variations on that rule will be determined by the emergence of new attitudes. Many factors lead to the loss of effectiveness of a rule, and consequently any institution implementing different schemes of regulations can decay.

To explain the cause of any individual case of social disorganization, one must first recognize the particular attitudes which have emerged as a result of the loss of influence of the social rules, and then to try to discover the causes.

According to Znaniecki, there is a tendency to break down the apparent diversity and complexity of the particular social processes into a limited number of less or more general causal facts, and this tendency can be realized in the study of the social disorganization if we discover that the decadence of "different rules" existing in a certain social reality constitutes the manife-

station of "such attitudes"; many similar disorganization phenomena, although apparently different, can be causally explained in the same way.

It is not possible to arrive at the determination of laws of social disorganization, but one can try to determine the laws of the "socio-psychological becoming" that invariably cause certain attitudes. The predictive capacity described by Znaniecki also makes it possible to explain social disorganization in all cases where the attitudes produced by these laws are the real basis of the disorganization they refer to; the decadence of such rules or institutions is the objective, superficial manifestation of these attitudes.

Znaniecki compares the sociologist's work to that of a physician or a research chemist, in the sense that all three seek to find not the laws of the multiform changes that occur perceptibly in our environment, but the laws of the more fundamental and general processes that are supposed to lie beneath those visible changes, and he points out that the latter can only be explained causally when it is possible to show that they constitute the superficial manifestations of some deeper causally explainable effects.

So, we have remarked that social reconstruction is the creation of new rules of personal behaviour and new institutions to replace or implement the old schemes and respond more effectively to changed attitudes (so that these attitudes can be actively expressed in action) and at the same time to regulate the way in which these same attitudes actively manifest themselves, not only so as to prevent social group disorganization, but also in order to improve cohesion and thus open up new fields for social cooperation.

Following Znaniecki's terminology, in the process of creation the individual role of inventor or leader is more important than the preservation or defense of old forms: even when the defense of the organization of the social structure is taken up by particular individuals, the latter assume the characteristics of mere official or non-official representatives of the group. They can be more or less innovative and effective in the realization of this purpose, but their horizons are limited to the perpetuation of the social tradition.

In revolutionary manifestations, man can generalize and make more conscious the attitudes and instances already existing in the group. In the social reconstruction phase, on the other hand, his duty consists in discovering and understanding the behaviour schemes that better correspond to these attitudes and in inducing the group to accept these schemes as social rules or institutions. In addition, as usual, he must develop new attitudes in those fields of society that are not yet ready for reform or are evolving more slowly, often in contrast with the supporters of the old traditional system.

It would be beyond the scope of this paper to show the methods of discovery our society new needs, while the ways through which the new forms are imposed are heuristically relevant. To induce a community – in Znaniecki's case, Polish agricultural society – to consciously accept any institution different from the traditional model, it is necessary to prepare that community intellectually for the new problems of assimilation and perpetuation of the social scheme (Thomas, Znaniecki, 1968).

Contacts between communities and the external social world are forever increasing and changing. It is clear that any attempt at reconstruction has to take account of this factor. A social organization exclusively based on the interests and relations unifying the members of an isolated community would not last and would have no potential for development, whether it be in Znaniecki's Poland or anywhere else in the modern world.

However, in the reconstruction of a new social system those attitudes of social solidarity that are necessary to ensure the harmonious cooperation of individuals in the active realization of their new attitudes cannot be created out of nothing. It is necessary to make use of certain attitudes from the old community.

Even if these old attitudes no longer organize or satisfy the new interests of community, they can be changed through appropriate influences into quite different attitudes which are more comprehensive and conscious, more suited to new conditions. In other words, the "community principle" must be modified and extended if it is to be applied to the class of reference and to a whole country in order to develop an increasingly large community using the right means of communication and aggregation; for Znaniecki, the press plays an important role in the aggregation of the Polish rural communities (*ibid.*, Part III).

The social system that emerges from such a base naturally tends to attempt to reconcile – by modifying them – two apparently opposite principles: that is, the traditional assimilation of the individual into the group and the new auto-assertion of the single person against the group or independently of it.

Finally, the most effective method seems to be, in Znaniecki's opinion, "conscious cooperation." Closed social groups are freely formed in order to fulfill the common positive interests that everyone can satisfy more effectively in a group than alone. Such groups, which are scattered throughout the nation, are unified by the people put in charge of their organization, all of whom have a common purpose.

Thanks to the greater coherence and expansion of the social group there will be more contact with social and political institutions created by the other classes. Classes begin to cooperate in a conscious way with activities designed to maintain national unity and to develop national culture. Znaniecki points out that in Poland national life has been preserved for one century through voluntary cooperation.

The sociological significance of the Polish scenario, as described by Znaniecki, is clear: it contributes in a fundamental way to one of the most important problems of modern times (Gubert, Tornasi, 1993, pp. 6-8), that is the transition from the type of social situation where public services and order are imposed through coercion, to a setup where not only a small minority but the same majority that is now culturally passive freely contribute to social order and cultural progress.

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The origins of personality in classical antiquity

Antonietta D'Alessandro*

The problem of understanding and explaining the enormous variety of ways in which man can express himself, the different behaviour and physical and mental responses towards apparently equal events has existed since ancient times. The epistemological model that Philosophy and the Greek sciences had been constructing from the 6th century BC demanded that what was present in the universe had to be explained according to the principles regarding nature, without using entities or forces belonging to a meta-human sphere. However, in this universe man is an exception: it is true to say that he is a body, but a body that thinks and experiences emotions. It is, therefore, necessary to prepare a system of causes and laws to explain sentiments, thoughts, emotions, and character traits in a scientific and rational way. Therefore, for the first *sophoi* the only possible way seemed to be to treat man and his physical and psychic qualities in the same way in which they treat the *physis* in a constant connection and in close dependence with the principles and laws that they are based on.

This attitude is already visible in the Heraclitus' doctrine (520-470 BC circa). Against the continual changes, the conflicting relations which characterise the life of natural phenomena and of man himself, against the weakness of the senses – which are incapable of understanding the real meaning of things through simple experience (B 107) – he invites us to look inside ourselves and to first of all interrogate our own soul. The call for introspection – which Heraclitus himself said he performed (B 101) – thus appears for the first time in ancient thought. It is considered the only possibility that man has of knowing himself and that world to which he is intimately connected and whose nature he shares in a true, unitary and stable manner. The justification of the need for this recovery of interiority and of the reflection of the self with himself is motivated in that close relationship which links macrocosm and microcosm: both deriving from the same *arché*, possessing inside itself *logos*. In Heraclitic thought *logos* is a term which not only means word, speech, but also universal reason that everything governs

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and coordinates and covers all the phenomena in unity; it is laws of the interdependence of the opposites that allows the world to operate: man in himself is not rational because only what surrounds us has reason and intelligence (A 16). *Logos* on a physical level is substantiated in fire, it also has intelligence (B 64), an extremely dynamic element that lives on misfortunes that in the continuous transformations of state that it comes up against, passing from dry to wet, gives rise to phenomena and to their differences. All things are made of fire, they all derive from fire and finish in fire. Man is also part of this universe, the connection that he has with the latter and the possibility of knowing it in its true and intimate reality is represented by the fact that there is a knowing and rational faculty, which is located in the soul. The *psyché* is designed by Heraclitus not in an abstract manner, it has material nature being a sort of fragment of the cosmic fire. It is warm, thin, impalpable, closely connected to the body. It is reality, like fire, in a continual flow and is capable of providing the corporeal structures with life and movement. But not only this. Once the identity has been placed between soul-fire-*logos* (B 64) the soul will become responsible for human rationality (B 16 and 41). Precisely because it is thought, the soul is capable of raising itself to an object of investigation and in the process of self-analysis, acquires the awareness of possessing that *logos* which dominates the cosmos (B 116). This journey inside oneself is not, however, easy and definitive because the human *psyche* is extremely complex and its relations and the dynamics of its internal processes are not clear: "One would never discover the limits of psyche, should one traverse every road, so deep a *logos* does it possess" (B 45). Not all manage to perform this interior research. It follows that even if all possess *logos* (B 113 and 116) all have the potential of being wise, there is no flat evenness in the mental life of men and in their behaviour: "each one has their own mind" (B 7). Each one behaves as if they had an *idia phronesis* (B2); in relation to it each individual receives and evaluates the data of the experience, feels pleasure or pain and acts. (B 2). Heraclitus points out in another famous fragment (B 119) that each man possesses their own *daimon*, a term that may be considered to be consciousness or character, like that internal sense that directs the action, the choices, the way of living. Each one, we may translate in modern terms, is responsible for their own destiny because they interpret and see the reality according to a personal viewpoint. On the basis of this, which depends on the rational potential, on the habits of life, on having actuated or not the capacity for looking inside oneself. It thus happens that some behave like children (B 70-74-79), others like madmen (B 87) others like dogs (B 97) or deaf people (B 19 and 34). In other words not all manage to recognise the link between their own personal discernment and the one, which is common (*koinon*) to all the other men and to the universe. Most men are like the sleepers (B 2) who, forgetting what they do when they are awake, allow themselves to be conditioned by the disarticulated images of the dreams and live in a world of their own (B 89). "Most are at odds with that with which they most constantly associate – the account which governs the universe – and [...] what

they meet with every day seems foreign to them" (B 72). On the contrary whoever is awake, keeping the contact with reality alive and being in complete possession and mindful of their own intelligence, manages to evaluate and interpret and evaluate well what is phenomenologically presented to their senses. Now the fact that each person has their own mind, the differing degree of intelligence, their character, their nature, their capacity for attention and memory, using or not using reason is predetermined on a strictly physical basis because it depends on the nature of the individual material soul and on its composition. We now come to what might be called the second level of Heraclitus's psychological investigation: he goes from an analysis of the soul in general to one whose object is particular souls, in an attempt to justify the differences between the various subjects from a psycho-physiological viewpoint on natural and physical bases.

Like fire and the things that it is made up of, the soul is subject to change. It can pass from a dry state to a wetter one and thus may undergo modifications to its own constitution. The purest, warmest and driest psyche is considered by Heraclitus to be the wisest and the best (B 118). This is a soul that possesses *sophia*, that is well aware of its *logos*, that knows how to evaluate and connect the data of the experience well; it is a soul which possesses the capacity to know, remember, understand to the maximum degree. The soul, by becoming moist, weakens if the balanced relation that it has with fire and the right mixture between blood and water is changed. According to the degree of humidity that might contaminate it, resulting from the poor operation of the body and from the excesses that it may be overcome by, or due to external causes, the individual loses part or all of his reason, memory and attention. An emblematic example is that of the drunkard whose soul is made wetter by swallowing wine, because of this excessive humidity he staggers and is unable to understand where he is going (B 117). He loses his memory, balance and orientation. In this way the subjectivity of the pleasure, of the pain, of the personal aspirations will find their cause in the percentage of humidity or of dryness present in the structure of the soul. A moist soul shall thus be imperfect and coarse; it will easily make errors (B 126) and shall be dedicated above all to physical and material pleasures (B 29 and 77). Then, the excess of humidity perturbs it to such an extent as to cause madness and imbecility.

Empedocles (492-432 BC circa), like Heraclitus, elaborates a theory of intelligence and of personality in which he attempts to connect the physical and the mental. In this paper we are not interested in examining the attitude of the orphic Empedocles who believes in a divine, immortal soul living in the human body and subject to the effects of metempsychosis. We shall look into the scientific doctrine of the man from Agrigento on the basis of which the intellectual and knowledge processes are explained in the light of the theory of the four elements. Each man, like the entire universe, is made up of the four primary elements: air, water, earth and fire. "Out of these are all things fitted together and by these do they think and feel pleasure and pain" (B 107). A certain organisation of the parts making up the body and their

combination according to different proportions is invoked by him as being the basis of man's capacity for knowledge, of natural skills, of the temperament of each single individual. In other words he attempts to construct a "psychosomatic theory of character" (Klibanski et al., 1983, p. 10). The four *rhizomata* or elements present in a greater or minor quantity in the sensorial organs permit the external reality to be perceived in a subjective and objective manner according to the principle of like knows like (B 109). The anatomic seat in which they are mixed to the maximum degree, and which is thus considered the organ of thought, is the blood surrounding the heart (B 97 and 105). The individual capacities, learning and memory, the temperament and the traits of the character are determined by the quality and quantity ratio that is established between the elementary particles transported by the blood (A 86).

Theophrastus in *De Sensu* says that, according to Empedocles, those

inside whom there is a mixture of the same and similar elementary particles which are not too far from one another and not even too small or too big, are the most intelligent and have the most precise sensations; they are followed by the ones which are proportionally closer to them; whereas those which have an opposing constitution to these ones are the most foolish. Those in whom the elementary particles are rare and small are slow and subject to tiring; on the contrary, those in whom the elementary particles are dense and well broken up are impulsive and full of initiative and despite undertaking many things, they rarely finish anything due to the speed of their blood movement. Finally, there are those who have a correct *crasis* of the elementary particles in a specific part of the body, from which each one obtains their own ability; therefore some are good speakers, others skilful craftsmen, because the latter have a balanced mix of elementary particles in their hands and the former in their tongue. The same things holds true for the other abilities (D. K. 86 A 11).

As Bollack observed, "les tempéraments et les caractères [...] sont liés au rythme (*phorà*) de la pulsation sanguine qui dépend elle-même de la texture du sangue" (Bollack, 1969), i.e., it depends on the measured ratio of the elements. Theophrastus's words are confirmed in Tertullian, who in *De anima* (20,3), repeated that Empedocles attributed a ready and lively or obtuse nature to the quality of the blood.

Even mental disorders, like manic rage, which makes the individual experience a state of great anxiety, are explained by the philosopher in biological terms that is through the impurity of the soul or in an imperfection of the body. Indeed in evidence from Coelius Aurelianus who, following the opinion of Empedocles, some state that a kind of madness, that the Greeks call *mania*, is caused by the body or one of its imperfections (B 86 and A 98).

Even desires, pleasure, pain are explained by Empedocles – on the basis of the principle of similar things – according to the composition and the

mixing of the elements in the body. Everyone experiences pleasure for the things that contain the element that it is structurally without or that is congenerical to its own nature. The pain derives from the meeting with objects contrary to its own nature; desire is felt towards what can compensate the structural deficits and produce a harmonious balance. It can be seen that it is an interpretation that brings out the subjectivity, but in which the individual differences are justified in an objective physical and physiological organisation. Could this be an attempt at scientific psychology?

Hippocratic medicine (from the 5th to the 4th century BC) also comes within this sphere. By studying the sick it attempts to construct the image of a man whose psychic and physical being and whose ways of relating with his environment, both normal and pathological, can be interpreted according to principles, which belong to his *physis*. A complex *physis* which is made up of a material structure of flesh, bones, humours, but which also possesses reason, is capable of feeling emotions, and is sometimes so overcome and ravaged by passions that the ability which makes man different from other animals is cancelled. This led him to build a theory in which mental activity and its anomalies, personal inclinations and individual behaviour, even emotions and temper are strongly conditioned and predetermined only by the condition and the structure of the soma.

However, he considers the possibility that non-biological factors could contribute to creating a state of mind, features of personality and even those diseases we call mental ones. In *Sacred disease* Hippocrates considers the brain as the centre of thought, emotions, pleasure and pain. But the linchpin of the doctrine of the Master of Kos is actually situated in the system of humours. In *Nature of man*, considered the first document to outline the character traits, which develop a series of diseases or behaviours, it is said: "The human body contains blood, phlegm, yellow bile and black bile. These are the things that make up its constitution and cause its pain and health. Health is primarily that state in which these constituent substances are in the correct proportion to each other, both in strength and quantity, and are well mixed" (c. 4).

On the contrary, if there is a lack or an excess of one of them and there is not a good balance with the others, the man suffers. Hippocrates associates these humours to the qualities of dryness, wet, warm and cold, according to a system of correspondences. Indeed blood (coming from the heart) is given a warm and wet quality; yellow bile (coming from the liver) is given a warm-dry one; black bile (coming from the spleen) is given a cold-dry quality, phlegm (coming from the brain) a cold-wet one. As seasons go by and in response to a particular climate, each humour can, in turn, prevail over the others without determining a state of sickness, but only a predisposition to get it. Therefore, when Hippocrates says that a man has a bilious or phlegmatic or sanguine or melancholic temper, he intends to identify his biological constitution based on the predominance of one of the humours in his body. At the same time, he intends to determine the organic reasons capable of causing particular pathologies. In describing pathological case histories, in bilious, melancholic

diseases, etc. he not only recorded physical symptoms but also the most frequent psychic ones. Therefore those concept-terms denoting a specific anatomical and physiological constitution subsequently obtained a mainly psychological meaning. The theory of the four humours thus became the theory of mental kinds. Galen would consider the sanguine individual as a superficial, lively hyperactive man; the phlegmatic one slow, lazy and unsure; the bilious one aggressive, passionate and irritable; the melancholic one sad and depressed. In pathological conditions these connotations become exacerbated. However, there are other treatises in which the biological complement, the physiological mechanisms of humours, do not seem to be enough to explain behavioural responses and mental attitudes.

Hippocrates is aware of each individual's peculiarity. He is convinced that each man lives a dialectic relationship with everything surrounding him. He acknowledges the value of the space-time context, the socio-political environment and the habits of life, the diet and the education in forming a person. In *Airs, waters and places*, he focuses his attention on the psychic condition of men. He seems to ask why people are so different not only physically but also in the way they think and act. He classifies different types of personality according to the context people live in and he demonstrates the role of the ethos and the mores in this kind of classification. In Asia, for example, where the soil is fertile and luxuriant and the weather is hot in summer and cold in winter, without great disturbances, men are well-nourished, vigorous, tall but not very brave, not capable of physical endurance, not very virile and not intelligent because sudden change strengthens the body and the soul, keeps your mind active and does not allow you to weaken.

On the contrary, in a bitter land where the weather is very variable, men are tall, thin and smart, they are hard working and brave; those who live in depressed areas with hot winds are generally short and strong, have got dark hair but they are not valiant or hard-working. However, the author adds, the institutions might correct their nature. This means that they have an important role in the formation of a person. Laws and the kind of government contribute to mould the character and "have a significant effect on the good condition of his psyche" (c. 23).

A demonstration of this is the difference between Asians and Europeans. The former subdued by a tyrannical government, the latter have a democratic regime. The former are weak precisely because they are ruled by a monarchy: they are not free, but exploited by despots and obliged to fight, suffer and die to increase their sovereign's power. They have no interest in striving hard and they become cowardly and lazy. On the contrary, the Greeks, who enjoy a liberal government, are enterprising, skilful, brave and courageous. It seems that all the discussion on the humours that can be found at the beginning of the treatise, has now shifted towards the psyche and towards the positive or negative influence that territory, political rule and laws can have on the soul. *Psyche* is the word used by Hippocrates to define this natural and invisible place containing frame of mind, personal attitudes (*Reg.*, IV), affectivity,

emotiveness and character that may be affected by events, but that is also able to decide how to react. Indeed there are also clinical records and places of the *Corpus Hippocraticum* that may lead us to think of aetiology of certain behaviour, which is not primarily biological. This means that if the psyche is affected, the body suffers.

In *Epidemics* we read: "if the soul falls ill, it consumes the body." In *Humours* it is claimed: "the organs obey the feelings." In *Prognostic* it is stated: "a good spiritual mood ensures a favourable prognosis." Actually, as experience suggests, emotions and frame of mind are capable of affecting the body's state of health. It is worth remembering a passage from the first book of *Regime* (c. 35) in order to define individuals in relation to their intelligence. Here the author states – showing himself to be in some way the heir to the theory of Empedocles and Heraclitus – that men have various levels of intelligence or of non-intelligence, up to folly, depending on the relation established between the elements making up the soul: water and fire. There are seven possible combinations listed. Perfect intelligence is obtained when fire and water are well balanced. When fire is slightly less than water you are a little less intelligent; if fire is much less than water you are dull and slow; if fire is even more dominated by water, we get mad, disturbed people who cry without reason and are afraid of what should not be feared and worry without reason. If the water is less than the fire and the fire is pure, the soul is intelligent, ready and lively. If the water is greatly exceeded by the fire, the intelligence is more penetrating but less constant. Finally, if the water is completely exceeded by the fire, the soul is extremely dynamic and the subject tends to be a dreamer. These character traits may, however, be corrected by a good life style.

In some treatises physical and psychological, anatomical and physiological structure and states of mind seem to have been given equal value in connoting some traits of human character and personality. This is probably because in Hippocrates's thought there is no clear distinction between physical and psychic, but we pass from one level to another without any problems. In *Ancient medicine* and in a more systematic way in *Airs, waters and places* Hippocrates says that man is considered as a unity, a psycho-physical totality, who interacts with what is around him whether it is food, drink, his geo-political environment, culture, etc. These external factors together with the biological structure, which is peculiar to any single human being, modify or mould his character. On encountering these factors, each man, in his unity, reacts physically or emotionally.

As regards Plato, whose thoughts on this problem would have deserved more space, we shall limit ourselves to just pointing out a few significant aspects regarding some dialogues, concerning the explanation that the philosopher provides of the specificity of the character and of the behaviour of men. The Athenian philosopher seems to move in a different way compared to the positions of the philosophers considered. To the question "what is man?," in *Alciades I'* (130a-c) he answers through Socrates that "man is his soul" and

"who wants to find what the self is" has to know what the soul is. From his early dialogues, Plato attributes to the soul – which is an immortal and divine unity, and which uses the corruptible body as an instrument – the responsibility for moral life, control of the body and of human actions. But if man is his soul, its nature must be investigated. The soul cannot be interpreted as a simple and homogeneous unity. Each person contains a series of attitudes, behaviours, tensions, an intricate succession of feelings, of conflicts, of needs, which have to be justified in a similar interior complexity.

Looking beyond his position in the early dialogues, in *Republic* (436a-441c) Plato begins to investigate the structure of the soul and hypostasizes a distinction by functions into three parts and gives each part a specific function and nature. There is a rational immortal soul (*loghistikón*), an irritable wilful soul (*thymoeidés*) and a concupiscible, optative one (*epithymetikón*). The latter is more connected to bodily pleasure and needs. A well-balanced life, based on justice and measure, should mean a good balance of the three parts. However considering these opposing trends, there is some conflict and an internal struggle among the three parts that does not usually end with the unifying and conciliatory victory of reason. The personal identity of man and his character are determined by the power that each kind of soul has for imposing itself on the other ones and on the body. In other words the true self of each man, or a certain kind of man, comes from the imprint the winning soul gives him. The result is the birth of a typology of the features in which different personalities take shape. A person, who is ambitious, arrogant, brutal, envious, obsessed by pleasures against nature, disrespectful of others' rights, craving for power, is identified by Plato as a tyrant (*Rep.*, IX 586c-d). A person, who is ruled by an irascible soul, is by nature irritable and aggressive.

However, if he is led by reason and he is well mannered, he develops some natural qualities of bravery and self-denial, which allow him to be a warrior and the guardian of the state. If he is not, he becomes arrogant and brutal (*ibid.*, 375 b7). Moreover, Plato outlines the personality of those who are slaves to wine, food, sex, richness, but if they are educated well they can learn to control their passions and to work for the common good, obtaining no more than the essential for themselves, they embody the personality of the working-class. Finally there is the personality of those in whom reason prevails. They long for knowledge, they are unselfish, they know the supreme values and do not care about material goods; in other words they have a philosophical soul.

However, Plato does not assign the responsibility for moulding man's temperament to the soul alone. In *Carmides* (156e), Socrates criticizes the Greek physicians who, unlike the Thracians, look for organ damage and do not consider the whole at all when treating their patients. He also underlines the absurdity of the division between treating the body and treating the soul, because damage to one of them has repercussions on the other. In *Gorgias* (493a-b) the corporeal component collaborates with the psychic one, whose desires can be likened to the liquids running through the body. In *Timaeus*,

where there is an evident need to bind body and soul more closely together and to explain the individuality of the self as the interaction between them, Plato creates a psychology based on physiology. He distinguishes the soul in an immortal principle (rational) and two mortal species (kinds): (irascible and concupiscible) each of which has specific passions by nature.

The former contains the sensitive and intelligible consciousness and it has the task of guiding the other two mortal species and through them the body itself. The irascible soul contains courage and hope by its very nature and opposes hastiness and fear. The concupiscible one contains desire, above all for nourishment, procreation and sex. Plato assigns three different bodily seats to each: head, heart and lungs, stomach and liver, organs that, while working, are capable of influencing the movements of the soul (70b-71b) and maintain the harmony. The head, which controls all the rest, with its round shape, shields and adapts itself to the rational soul; the heart, the origin of the blood, which runs through the body, is positioned as a guardian. Whenever it is affected by passions or any internal or external injustice, it boils with anger and thumps. This beating, spreads the blood faster throughout the veins and is perceived by the rest of the body, which, perceiving the danger, is subdued by the rational soul. The excitement of the heart and its boldness are soothed by the soft and sponge-like lungs, cushioning the beats and cooling it with the air and cool liquids swallowed. In this way the heart is capable of soothing the irascible part of the soul inside it. The liver, which is unable to control that part of the soul that is inside it, has a structure and a quality that make it capable of mirroring the orders of *loghistikón* in the shape of images and of inducing the soul to obey it. When the soul enters the body, it is violently invested by the fluxes and efluxes of bodily matter (sensations, nourishment, evacuations) (43a-d), which modify the internal balance. A strong and right soul is capable of restoring harmony and of balancing passions.

However, a bad body disposition due to a lack or excess of its components can even cause psychic diseases. The language that Plato now uses and the scientific background on which he builds his theories are easily identified in the medicine of the time and in the theory of the fluxes. When acid and salty, bitter and bilious humours cannot find their way out, they mix up their exhalations with the movement of the soul and cause pain and disease, and according to the organ into which they flow, they cause unhappiness, sorrow, audacity, cowardice and forgetfulness (87e-88). Those who have plentiful seed thus become overexcited due to an excess of pleasure and pain. Therefore, according to the type of interaction between the components of the soul and those of the body, particular personalities and clear psychic pathologies can be specified.

From the psycho-physiological unitary point of view of the *Timaeus*, the only remedy will be "to not exercise the soul without exercising the body, nor the body without the soul, so that each one may be balanced by the other, and so be sound" (88b-c).

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Evolutionary logic and psychology: a historical comparison of relevant frameworks

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1. Evolutionary logic and psychology

For the better part of the past century, mainstream psychology has focused on behaviour as primarily, if not exclusively, the result of learning processes. The body was seen as nothing but a complex physiological machine or, at best, as an evolved vehicle for behaviour. Behavioural change could be explained from a behaviourist (Skinner, 1938; Watson, 1913) or social-learning perspective (Bandura, 1977; Miller, Dollard, 1941). Concepts such as evolved behavioural tendencies were largely neglected or even denied. As far as any attention was paid to such concepts, it was mostly limited to biological disciplines. Especially within the European ethological tradition, founded by Konrad Lorenz (1937, 1950) and Niko Tinbergen (1951, 1963), it was made clear that it was necessary to assume the existence of inborn, motivational sources, to explain the behaviour that was observed in animals.

Over the last two decades we finally saw the rise of evolutionary thinking in psychology (Barkow, Cosmides & Tooby, 1992; Buss, 1995, 1999). In fact, it would be more appropriate to speak of "the return," because the relation between psychology and evolutionary thinking is much older than is sometimes acknowledged. In the history of the behavioural sciences, several research programs have touched upon this hazy territory where psychology meets biology. Most of them have not been able to become truly psychological, because they limit themselves to biological domains. The most obvious example would be Edward O. Wilson's sociobiology, with its tenet that "the social sciences, as well as the humanities, are the last branches of biology waiting to be included in the Modern Synthesis." With the "Modern Synthesis" he refers to the neo-Darwinist theory "in which each phenomenon is weighed for its adaptive significance and then related to the basic principles of population genetics" (Wilson, 1975, p. 4). The central problem of such a biological determinist research program is that psychological or

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cultural phenomena often cannot simply be explained from such a purely biological level of analysis. Our behaviour is more than just the functional result of our genetic endowment. If we wish to explain human behaviour, at least we need to consider processes like individual development, learning and socialization within cultural traditions, that each play their part in the coming about of our behaviour. We clearly need other levels of description, besides behavioural genetics, to fully understand human behaviour.

The fact that evolutionary theory itself can only be applied to the biological underpinnings of our behaviour, does not mean that its explanatory logic cannot be used beyond the point where biology becomes psychology. It is our aim here to show how the logic of evolutionary reasoning can be applied to psychological analyses of behaviour, without adhering to biological determinism. We will do so by comparing relevant frameworks of William James (1890a, 1890b), B. F. Skinner (1981), Donald T. Campbell (1974) and the Dutch ethologist Niko Tinbergen (1951, 1963). Each of these scientists has had an influential notion about the relation between evolution and behavior. By comparing them we hope to achieve an integrative approach to the matter at hand, without reverting to the type of biological determinism that Wilson was aiming for with his socio-biology.

2. The Ethological Framework

Modern evolutionary theories with regard to behaviour, such as those used by evolutionary psychologist, often refer to the ethological explanatory framework as proposed by Tinbergen (1963). This framework contains his famous 'four whys', which, according to him, should be addressed when explaining behaviour.

Phylogeny, the first question, is about the evolutionary history of the species, up to the conception of the specific individual whose behaviour we wish to explain. This history can best be described as a chain of environmental pressures that selected any hereditary behavioural mechanism that, in its turn, caused the behaviour.

Ontogeny, the second question, refers to the life history of the individual, from conception up to the behavioural act we wish to explain. It can be described as a chain of local and temporal circumstances that tuned the behavioural mechanisms of the individual to its specific environment.

Causation, the third question, refers to the events leading to the actual behaviour we wish to explain. It can be described as a chain of stimuli triggering specific neural reactions that, in their turn, cause the subsequent behavioural pattern.

Function, the fourth question, asks about the evolutionary value of the behaviour. It refers to any subsequent events, at least partly caused by the behaviour, that improve the individual's chances of surviving and reproducing, thereby increasing the future spread of his genetic material. In any

previous generation this evolutionary advantage caused retention of the mechanism during phylogeny, thereby directing the behaviour of the present individual towards achieving the same advantage.

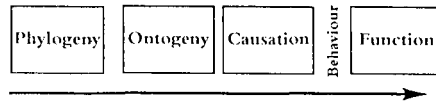


Fig. 1: Diagrammatic representation of the ethological framework as proposed by Tinbergen (1963)

These four questions can be placed on a time line, representing the history of any behavioural act, as shown in figure 1. On this time line the first three explanations describe the events leading up to the behaviour, while the fourth describes its evolutionary function. At any given moment this framework can be used to explain an individual's behaviour. The model can best be seen as a snapshot of the history of the behavioural act, showing how that act is based on a specific evolved behavioural tendency (phylogeny), that was tuned during life to local and temporal circumstances (ontogeny) and got triggered by specific events (causation), directed at achieving a certain advantage in the future (function). With this model in mind, we wonder if it is adequate to explain human behaviour. When psychologists answer all four questions, would that result in a satisfactory, integrative approach?

3. Evolutionary and behaviourist logic

Essentially, evolutionary thought combines two types of explanation. It starts with an explanation of the coming about of traits. Next it looks at the consequences of those traits in order to explain their subsequent retention. Living beings pass on hereditary traits to their offspring. During this process, slight variations in the genotype cause differences in the phenotype of the next generation. These changes have either beneficial, neutral or detrimental consequences for the chances of survival and reproduction of the individual. Over generations this results in detrimental traits being weeded out, while neutral and beneficial traits persist. With respect to behaviour, one could say:

When a hereditary behavioural reaction is followed by a beneficial consequence for the individual (in terms of survival or reproductive value), the probability of reoccurrence increases (by means of spreading of the genotype), resulting in a set of evolved behavioural mechanisms, with the function of preserving the species by adapting it to its environment.

Looking at the logic behind one of psychology's most famous paradigms – Skinner's framework of operant conditioning (Skinner, 1938) – we see a clear resemblance. Skinner's framework also combines two types of explanation. The first is about stimuli triggering actions in the individual, the second points at the consequences of behaviour and their influence on its reoccurrence. Leaving out the behaviourist jargon, Skinner's explanation runs as follows:

When a *behavioural reaction* is followed by a *beneficial consequence* for the individual (in terms of reinforcement), the *probability of reoccurrence increases* (by means of individual neural changes), resulting in a set of learned behavioural mechanisms, with the function of preserving the individual by *adapting it to its environment*.

Superficially, this seems almost equivalent to evolutionary explanations. The first part is equivalent to Tinbergen's 'causation', the second part seems to be equivalent to his 'function', but is it really?

4. Consequences? What consequences?

At the core of both evolutionary and behaviourist reasoning lies the same principle: behaviour occurs blindly, but once it occurs its consequences determine whether it will reoccur or not. Detrimental consequences lower the chance of reoccurrence, beneficial consequences increase that chance. In both theories, organisms adapt to their environment through this basic principle of selection by consequences. The theories differ, however, with regard to the specific mechanism of adaptation they address. Behaviourism is about adaptation through habit formation in the neural system. This is a proximate effect, taking place over a relatively short period of time in the present and affecting only one individual. Evolutionary theory, on the other hand, is about adaptation through changes in the genotype. This is an ultimate effect, taking place over many generations and affecting the gene pool of an entire species. Summing up, the fundamental demarcation between the two processes lies in the specific mechanism of adaptation they address.

This difference causes a problem when we wish to apply the ethological model to any behaviourist psychology. When looking at the ultimate, evolutionary explanation, both the genesis and the selection of the behaviour are covered in Tinbergen's model. They are represented by his phylogenetic and functional components. But when we wish to incorporate the proximate, behaviourist explanation, we stumble upon a shortcoming. We already noticed that in Skinner's framework the genesis of behaviour is equivalent to Tinbergen's causational component. But the selection of behaviour by its consequences as defined by Skinner is missing in Tinbergen's model. His functional component seems equivalent, but is different in a fundamental way: it exclusively allows for ultimate, phylogenetic effects. The proximate function of behaviour, the im-

mediate reinforcement that Skinner was talking about does not exist in Tinbergen's framework (graphically represented in figure 2).

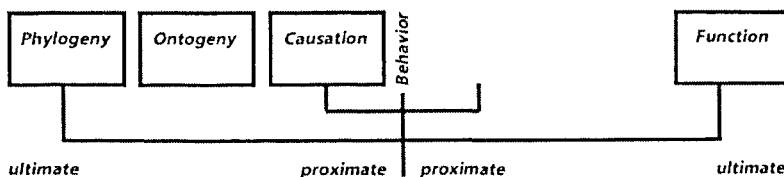


Fig. 2: Diagrammatic representation of the ethological framework as proposed by Tinbergen (1963), showing how it only allows for ultimate, phylogenetic functional explanations

The conclusion, then, must be that Tinbergen's framework leaves insufficient room to incorporate even the most elementary learning theory, and should be expanded if we wish to apply it to psychology. To integrate behaviourist logic with the model of Tinbergen, we should distinguish between two types of consequences of behaviour: the ultimate, phylogenetic function that is already represented in Tinbergen's functional component, and a proximate function that covers Skinner's reinforcement concept. Nevertheless, the framework of Tinbergen has strong heuristic value in its orderly presentation of relevant questions that a behavioural scientist should answer. If we wish to expand it, we should try to preserve this clear arrangement to prevent us from losing its heuristic value. For this reason, we stay as close as possible to the original ethological framework and make only two alterations: 1) we specify Tinbergen's function to the more appropriate phylogenetic function, thereby clarifying its relation as the functional counterpart of phylogeny; 2) in a similar vein, we introduce a functional counterpart for the causation component, thereby fully incorporating the behaviourist framework into the ethological framework (see figure 3).

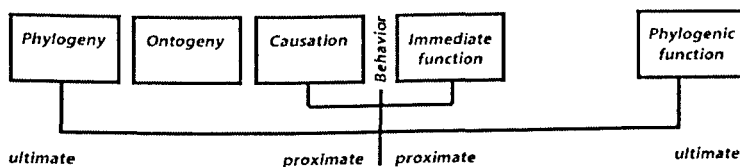


Fig. 3: Diagrammatic representation, combining ethological and behaviourist explanations

In this way we achieve a framework with two pairs of explanations, one about the evolution of the species, and one about individual learning. This is not entirely new for psychology. Skinner, in his later writings, adopted a similar framework (Skinner, 1981), in which retention of both biological dispositions and learned behaviour were explained by 'selection by consequences'. He even proposed a third, cultural level, to which he applied the same reasoning: cultural symbols and artifacts initially appear blindly, but then become selected because of their beneficial consequences for those who handle them.

At first glance, such a framework seems very useful for psychology. It is similar to the framework shown in figure 3, and even adds a third level that is very relevant to human conduct. But there is at least one assumption in Skinner's thinking that renders it unfeasible. For methodological reasons, at the core of his radical behaviourism, Skinner claims that his levels are independent and should be studied independently. A psychologist should accept the products of evolution as given and exclusively study individual learning (Skinner, 1981). This immediately puts a stop to the kind of integration we wish to accomplish, in part because it becomes impossible to study these levels in relation to each other.

5. An attempt at integration

Obviously, we need a broader scope in which we are able to study all levels and their mutual relations. Most importantly, we need a more pluralistic perspective in which no type of explanation is rejected beforehand. Such a framework should be firmly rooted in evolutionary theory but should avoid biological reductionism, so as to leave adequate room for psychological explanations. In making this attempt at integration, we should keep in mind a more practical point. As previously mentioned, the ethological framework is a very powerful heuristic tool. Its clear arrangement enables researchers to instantly recognize which questions to attend to. So, although further expansion of the framework is needed, we should try to preserve this clear arrangement, to retain that strong heuristic tool for psychological research.

6. Pluralistic functionalism

The resemblance between the structure of Skinner's explanatory framework and evolutionary reasoning is far from coincidental. Skinner largely based his theory on the law of effect once formulated by Thorndike (1898). Thorndike for his part was inspired by his tutor, William James, who was the first to connect psychology with Darwin's theory of evolution (James, 1887, 1890a, 1890b, 1899). In that sense, William James can be seen as the founding father of both evolutionary psychology and behaviourism, making him the most obvious place to start when aiming for disciplinary integration.

Beforehand, it must be said that, arguably, there is no single research program that James can be exclusively assigned to. Looking at the diversity of interpretations of his work, Donnelly (1992) concluded that almost everyone has a different interpretation of his principles. This probably leaves 'pluralism' as the only suitable label. However, one thing is beyond all doubt: James had the firm belief that psychology, as a life science, should be rooted in evolutionary theory. His thinking is pervaded by evolutionary logic, not only on a biological, but also on a psychological level.

In this sense, his thinking can best be described as pluralistic functionalism. This is most obvious in his argument that instincts are the foundation of all human conduct (James, 1887, 1890b, 1899). They are functional products of evolution, environmentally selected because of their usefulness for our ancestors. At the same time, these instincts are the stepping stones on which we build habits during our lifetime. To this process he applies the same functionalist principle: once we act instinctively, our actions are shaped into habits because of their usefulness under local and temporal circumstances.

According to James, these instincts and habits may be totally blind, in the sense that the individual has no foresight of their ends. But, once the individual reacts, he has had the possibility to relate his action with the result and the desirability thereof. When the individual becomes conscious of this relation, as is the case with humans and 'higher' animals, "an impulse acted out may be said to be acted out, in part at least, for the sake of its results. It is obvious that every instinctive act in an animal with memory must cease to be 'blind' after being once repeated, and must be accompanied with foresight of its 'end'" (James, 1890b, p. 390).

In this condition, learning becomes a complicated, recursive process. Now the individual is led by expectations about future outcomes, built upon past experience with his own actions and those observed in others. This feedback cycle detaches the individual from its ultimate evolutionary interests, and enables it to focus on individual interests which will guide subsequent behaviour and learning. This does not necessarily imply that the individual is no longer an automaton, simply that the individual is no longer bound to evolved tendencies.

According to James, even the selection of such 'action-result' relations for conscious processing, occurs on the basis of previously established usefulness. Interests that proved useful before, have a greater chance of being selected by our attention once again. Again, it should be emphasized that this selection of interests, although attentional, is not necessarily intentional. Although interests are selected by our attention, it is not at all necessary for this selection to be intentionally carried out by a free agent. If we consistently follow James' reasoning, all behaviour is still shaped by unintended consequences of previous actions. Whether or not we are able to intentionally direct our behaviour, is a question which James regarded as a matter of belief that could not be scientifically grounded (James, 1890a).

James' theorizing obviously serves our purpose. It is grounded in evolu-

tionary theory, it is functionalist in every way. Even his pragmatist epistemology is essentially functionalist, considering his maxim: "Truth is what works." Moreover, his theorizing is also more pluralistic than either Tinbergen's or Skinner's, and shows how evolved tendencies flow into learned habits and into more complex attentional learning processes.

7. A strong heuristic tool

Does James also offer us a strong heuristic tool? This is highly doubtful. His dynamic, pluralist theorizing is hardly modeled. However, previously we have seen that Skinner's perspective could be modeled by expanding the ethological framework. In a similar sense, we can try to expand it even further to structure James' theorizing.

An interesting perspective, in this regard, is offered by Donald T. Campbell (1974). His work is a valuable step forward, both as an elucidation of James, and as a useful complement to Tinbergen. Following James (1880), he emphasized the blindness of variations popping up at any given moment in the evolution of a species, the adaptation of individual behaviour or the emergence of a social ordering. Because of this blindness during the emergence of phenomena, again following James, he emphasizes the importance of selective retention of specific variations once blindly attained.

This selective retention implies that, taken from any particular point in time, any next step is only blind from that point onwards. Each previous step in the process of adaptation has put certain constraints on all following steps. At each step a particular road is taken, cutting off the road to several future alternatives. This does not only apply to biological evolution, but also carries over and upwards to other levels. Evolved behavioural mechanisms, for instance, put constraints on what can individually be learned. Thus Campbell was able to argue that the development of life on earth has led to a 'nested hierarchy of selective-retention processes'. From the crystal formations resulting from chaos billions of years ago, through the evolution of simple reflexes, to the complex social institutions we now have, blind variation combined with subsequent selective retention, has been the formative process.

As to the specific content of Campbell's model, we can only consider it briefly here. He introduced ten levels in his 'nested hierarchy of life', claiming that, "criteria on one level, are but trials of the criteria on the next higher, more fundamental, more encompassing, less frequently invoked level" (Campbell, 1974, p. 401). The levels mentioned by Campbell are 1) non-mnemonic problem solving, 2) vicarious loco motor devices, 3) instinct, 4) habit, 5) visually supported thought, 6) mnemonically supported thought, 7) socially vicarious exploration (observational learning and imitation), 8) language, 9) cultural accumulation and 10) science.

Now is not the time to explain any of these levels in detail, and of course they are debatable. But the general idea of a nested hierarchy of variation-

selection processes fits the pluralistic functionalism we are aiming for, and may assist in theorizing about the questions that can be asked in relation to human behaviour. Moreover, the distinction between such levels may assist in establishing, what is the function at a certain level of the behaviour of an individual in the chain of being at that level minus one. It even makes sense to distinguish between the suggested or imagined, that is the intended effect, and the real function at the same or a lower level. At least one could say that at levels six through ten, aim and function should be distinguished.

Most importantly, Campbell's levels assist in clarifying James' theorizing. As made clear earlier in this paper, the fundamental demarcation between such levels is the specific mechanism of adaptation on that particular level. Looking at Campbell's levels, one could argue that his detailed distinction is rather stretched, in the sense that several of his levels make use of the same mechanism of adaptation. Pruning his levels following that criterion, we are left with three distinct processes of blind variation and subsequent selective retention:

1. levels 1–3 slowly develop through biological evolution within the entire species,
2. levels 4–6 quickly develop through neural changes within the individual, while
3. levels 7–10 develop at an average pace between individuals within a social group.

8. Ontogenic function

This triplet – grounded in James' pluralistic functionalism, recognisable in Campbell's nested hierarchy, and reminiscent of Skinner's theory of 'selection by consequences' – brings forward our proposal of at least one other functional realm of behaviour that should be distinguished: the one in which our behaviour, over the course of our lives, has a function for the maintenance of the social groups we live in; the process which leads the individual to adapt to conventions of its social environment and adopt the accumulated knowledge and cultural heritage of its society.

We suggest that this ontogenic process is a combination of blind variation and subsequent selective retention, just as both the ultimate phylogenic process and the proximate causation are. Looking back at Tinbergen's original model, we notice that ontogeny was already part of his famous 'four why's'. However, once again, an explanatory functional counterpart is missing (this is obvious in figure 3), and this leads to our proposal of the ontogenic function as an additional type of explanation. This type is different from both evolutionary and behaviourist explanations because it has its own specific mechanism of adaptation, which is observational learning and imitation. The result of these attentive learning processes takes root neither in the gene pool of the species nor in the neural system of the individual, but in the repertoire of conventions

established between members of a social group. Such a type of explanation allows us to explain why individuals sometimes act in a way that is neither evolutionarily viable nor hedonistic. Going to war to defend your country might be one example. Another is smoking as a confirmation of group membership among youngsters.

A tentative functionalist explanatory scheme, which follows the same logic as those of evolutionary and behaviourist theory, would run as follows:

When a *behavioural reaction* is followed by a *beneficial consequence* for the individual (in terms of enhancing its group membership), the *probability of recurrence increases* (as a result of spreading through imitation by other members), resulting in a set of conventions, with the function of maintaining the group by *adapting it to its environment*.

We admit this is tentative, and therefore should be taken as a crude first concept, that should be refined in the near future. But, together with the ontogenic component from Tinbergen's framework it could form an explanatory pair, similar to the ones we have already encountered in Skinner's framework. When adhering to the pluralistic functionalist principles we have explained so far, we should conceive of this pair as embedded between and related to evolutionary and behaviourist adaptation.

9. The Expanded Ethological Model

Adding this to our model, we present an Expanded Ethological Model (figure 4) consisting of three nested processes of selection by consequences. Each level offers a causal explanation of blind variation on the one hand, and a subsequent functional explanation of selective retention on the other. The first level is the ultimate level of evolution, which we call phylogeny. The second level is the intermediate level of individual development, or ontogeny. The third level is the proximate level on which the actual behaviour unfolds. Tinbergen called this causation of the behaviour. This is a bit confusing, since both phylogeny and ontogeny contain histories that can be described as causal chains. Besides that, we wish to have one label for the level that can encompass both the causal explanation and its functional counter-part at the same time. Therefore, consistent with the terminology already in use, we choose to name this process ethogeny (ethos = behaviour, genesis = unfolding).

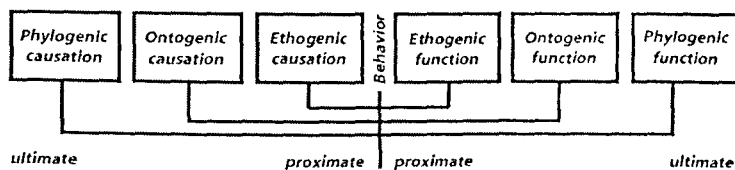


Fig. 4: The expanded ethological model, consisting of three nested pairs of explanation, based on evolutionary logic

Besides adhering to the functionalist pluralism of James, with this model we have retained the clear arrangement of Tinbergen's framework, thereby offering strong heuristics for science. The model clearly presents six fundamental questions that should be answered when explaining behaviour:

1. Phylogenetic causation: what evolutionary history formed the behavioural tendency?
2. Ontogenic causation: what local circumstances further adapted this tendency?
3. Ethogenic causation: what chain of stimuli and reactions unfolded the behaviour?
4. Ethogenic function: what individual reward immediately follows the behaviour?
5. Ontogenic function: what group-maintaining function follows the behaviour?
6. Phylogenetic function: what survival value has the behaviour for the species?

In this model, questions one, two, three and six are the ones originally proposed by Tinbergen, rephrased to fit our Expanded Ethological Model. Question four is primarily derived from the work of Skinner, but originated in the work of James. Question five is essentially new to the paradigm, and was tentatively derived from the work of James, Skinner and Campbell.

Within this model we should try to clarify the relationship between the three levels. The upward relationship from phylogeny, through ontogeny, to ethogeny is pretty straightforward. As Campbell argued, each level sets boundaries to higher levels by steering behaviour in certain directions. To give an absurd example: our evolutionary history has arranged our internal make-up in such a way as to direct our behaviour towards reproduction. Any ontogenic process leading towards a convention that strictly prohibits sex will obviously be smothered by the extinction of the group of people adopting this rule of conduct, due to lack of progeny.

In a similar way, ontogenic processes set certain constraints to the behavior which can directly be triggered in the individual. An individual triggered by a certain stimulus to behave in a way diametrically opposed to the rules of conduct of his group, will not be accepted by other group

members, with the risk of expulsion probably forcing the individual to adopt a more appropriate reaction to the same stimulus.

In the opposite direction, relationships are less clear. Acquired behaviour in one individual of course can spread through a population by means of social learning, provided that conditions are right. But is it also possible that, in a similar way, habits or conventions eventually become part of our genetic dispositions? Of course it is impossible for traits acquired during life to directly become part of the genetic material that is passed on to the progeny. But it is not inconceivable that some indirect detour exists which eventually leads to acquired traits ending up in the genotype.

Baldwin (1896a, 1896b), amongst others, has suggested that once an acquired trait is widespread in the population, it essentially becomes part of the evolutionary environment. When such a trait solves a particular evolutionary problem it creates an environment in which individuals who accidentally develop a hereditary version of the trait get a head start on their opponents, leading to the spread of the hereditary version in the population. However, this so-called Baldwin-effect is, over a century later, still a controversial theory, about which Downes (2003) concludes, after reviewing the historical debate, that a convincing empirical demonstration has never been found, leaving it an interesting idea for which only a theoretical defense can be given.

10. Conclusions

The broadest conclusion that can be drawn from this paper, is that the idea of evolutionary theory as a foundation for psychology, is as old as psychology itself, dating as far back as the first writings of William James. Moreover, his pluralistic functionalism is the richest perspective we have encountered, allowing for more integration in the life sciences than any other. However, it fails to deliver strong heuristics. Frameworks as proposed by Tinbergen and Skinner may not be sufficient for psychology, but are useful to elaborate upon – especially by refining their conception of the consequences of behaviour – and offer us the strong heuristics that James' work is lacking.

With the help of insights of such historical figures as James, Skinner, Tinbergen and Campbell, we have proposed a model that offers both a pluralistic functionalist approach and strong heuristics for the social scientist. At the core of our model lies the functionalist assumption that life is about adaptation to the environment through modification of behaviour on several levels. On each level this modification takes place through a process of 'blind variation' and subsequent 'selection by consequences', so as to retain functional traits and weed out dysfunctional ones. Each level of modification is bound to its specific mechanism of adaptation and accompanying developmental pace.

The slowest of these processes is biological evolution. The advantage of this process is that a basic behavioural repertoire is always standing by when acquired reactions fail. The disadvantage, however, is that these evolved mechanisms are

highly specific and relatively rigid, and that it takes several generations to achieve any modification. To overcome these obstacles, evolution has equipped us with general learning mechanisms which enable us to bypass our evolved tendencies and adapt our behaviour to local and temporal circumstances. William James offered such a perspective, which could be further elaborated and modeled with the help of Campbell's theory of nested hierarchies. Admittedly, the model we obtained by combining these insights from James and Campbell with those of Tinbergen, is still tentative and needs to be elaborated in full.

Besides these general remarks, the model points us towards two specific fields of investigation which require considerable attention. First of all, we have the very tentative functionalist approach to the social construction of behaviour. This concept is hardly out of its shell, and needs to be elaborated and specified. Specifically, common ground with existing literature should be examined to test this concept against those of others. A second field where much work is needed is that of relations between the various levels in the model. How are the various levels of modification of behaviour related to each other? To what extent do they constrain each other and to what extent do they catalyze each other's effects? In particular, the downward relation between the levels needs closer investigation. Can, for instance, a strong empirical case be made for the Baldwin effect? As can be seen, this paper raises several questions which show there is a lot of work to be done. At least, in themselves these questions can be taken as a first test of our central claim: they are unintended beneficial consequences of our writing and as such should raise the chance of reoccurrence of this specific behaviour. After all, as argued by both James and Campbell, the function of historical research such as this, is to be useful for future theories, just as the function of memory is to be useful for future behaviour.

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Autobiographical gender and search for happiness in Maine de Biran's Diaries

*Carmela Ferrandes**

1. Birth of the private diary

The private diary recomposes daily situations and makes history of them, using contemplations and scenes from private life not filtered by memorialistic considerations. It transcribes past events in a selective manner distinguished by protagonism.

In the pre-romantic and romantic period, those texts which had some connection to the category of private diary acquired a precise form which defined their independence. They were distinct compared to those which represent a preliminary or parallel phase of the private diary with an autobiographical-like outcome. Indeed, the writers of the romantic period preferred to reconstruct their own interior itinerary backwards, in memories, confessions and romances labelled 'stories of one's own life', or to transcribe and interpret daily life by means of letters which are full of comparisons and sensations. In this case daily life finds a deliberate and often fictitious immediacy of exchange and social echo in the otherness of the correspondent. This immediacy satisfies the need to consider one's own identity as being outside itself, in other words to construct its own image and put it into a circularity defined by the group it belongs to, since the recipients are always near or integrated in the original environment or education of the writer. At the same time the exchange of letters defines a writing scenario which is more suited to literary ambitions, but also to public if not political ones, let us not forget it, like what happens for Constant. On the contrary, let us think of the literary fiction of the epistolary novel with a single voice, of *Oberman* above all, where the addressee favours the registration of a sort of interior monologue (Didier, 1984, p. 474).

According to this perspective of interior analysis and ethical and social definition, the birth of the private diary can be suggested to be between the end of the 18th and the beginning of the 19th century.

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Maine de Biran (whose real name was Marie François-Pierre Gontier de Biran, to which he added Maine from the name of one of his lands), who was born in 1766 and died in 1824, may be considered the founder of the genre.

2. Maine de Biran: otherness of autobiographical writing

Maine de Biran was one of the most important intellectuals in the decades between the French Revolution and the Restoration. His diaries represent a rare example of a perfect blend of philosophical and autobiographical writings. The diaries investigate the nature and the definition of the self, the search for possible happiness which does not reject the contribution of science on the individual level and on that of social well-being, and consider matters connected to the decline of illuminist certainties in favour of doubts and of the impotency of will typical of pre-romantic thought.

Biran, who belonged to a family of notables and public officials, continued this family tradition, surviving four regimes with various appointments. He taught himself philosophy and science and was initially a follower of the thought of the *Idéologues*, particularly of Cabanis and of Destutt de Tracy, who had a great influence on his theories on development and decomposition of thought and on habit conditioning. Biran published very little during his lifetime and when he died, apart from the unpublished works of a theoretical nature, four notebooks were found which included a diary written by him continually from 1814 to 1824, that is until two months before his death, and the texts regarding a manuscript with fragments bearing the date of the years 1794 and 1795 and subsequent notes from diaries, carnets and loose sheets, the latter often undated. Sometimes Biran put aside his diary for several days and in the meantime noted events and feelings elsewhere. He returned to them from a different aspect and with a different viewpoint, once the usual writing was started again, although he returned to the moment of the interruption.

The intimate movement that made the young apprentice philosopher and psychologist observe himself to observe the world, thus coincided with the beginning of the drawing up of personal notes and of the outline of future works, often on the same manuscripts and without continuity.

3. Private diary and perfectibility

The epistolary and diary forms have one shared characteristic: recomposing daily elements, which makes history and belongs to them. There is also an important distinction between them, however: the personal diary establishes a progression whose rules and whose aims are established by the subject. This aspect, which necessarily involves the choice of language and writing conduct and derives from the fact that, by definition, a diary follows the existential

description of the writer and cares for and foresees the completion of him alone. In the romantic period it loses the obligatory reference of transcendence which had, until then, been inseparable from the practice of introspection. In others words, the private diary foresees a doubling and continually projects the individual towards a self which is either better or perfectible, in the sense of a constantly pursued direction. At the beginning of the nineteenth century this became customary, if we consider *Agendas* and *Livrets pratiques d'emploi du temps* available on the market (and found duly compiled in the archives of Maine de Biran) which contained notes recommending the use of abbreviations which could indicate the degree of daily satisfaction compared to the results obtained. These abbreviations should have covered three stages: "1st progression: *p* ou *b* (good). 2nd stagnation: *s* ou *m* (mediocre). 3rd déviation: *d* ou *n* (nigrum, bad) (Gouhier, 1954-1957, III, p. 62). However, where previously the diary tradition bore the hall-marks of religious confession and thus of a spiritual journey towards divinity, in the romantic period diary writing is characterised by secular behaviour, marked by returning to oneself.

Maine de Biran's Private diary on the other hand, by maintaining the two dimensions – the spiritual journey towards divinity and the return to oneself, covers all the ways leading to faith from doubt. This journey has marked the alternating fortunes of Biran the thinker, firstly by redeeming him from having been closely connected to the group of idéologues and by recognising him as being one of the masters of anti-materialist thought of the early 19th century, then for the same reason, by confining him, with the advent of positivism, as predecessor of the spiritualistic restoration in the French area. One of the major scholars and disseminators of the philosopher, A. de La Valette-Monbrun, was responsible for this interpretation. At the beginning of the last century, he made Biran's diaries a celebrative reading, aimed at showing the inevitable and exemplary outlet of his thought in mysticism and considering it just a mirror or a way to access production considered to be of higher dignity, the philosophical one.

4. Political life and diary transcription

Belonging to a family of notables and public officials, Biran also followed this family tradition and survived four regimes, obtaining various appointments. The years from 1814 to 1824 witnessed the peak of his political career: vice-prefect of Bergerac and then member of the Corps Législatif under Napoleon, with the Restoration he became the deputy of the Dordogne at the Chamber of Representatives, an office for which he was re-elected every time except for the 1816 elections, when he was violently attacked for private reasons by the extremist ultras.

Biran had started to keep a diary in the stormy years of the Revolution, when he retreated to the family holding in Grateloup and started to note down the observations and thoughts resulting from his long solitary walks.

This was in line with Rousseau's model which was so dear to him. Indeed, he shared Rousseau's sensitivity and temperament. Biran's escape from the Terror, in 1794, is emblematic of his subsequent flights from all excesses or forcing in the management of public assets, which led to him sometimes courageously aligning himself with the opposition. For instance, in 1813, he signed the petition to end the war from the Emperor, which outlined an individual ethic of behaviour rather than a political line.

In the diary, public life is an introspective place and one for personal growth eliminating the danger of a heroic transfiguration of Biran's own role on the one hand and privatises and circumscribes political life within domestic walls on the other.

5. Maine de Biran: autobiographical writing and the search for happiness

The central and most compact corpus of the diaries, according to H. Gouhier's classification, which arranged the chronology, covers the years from 1814 to 1824, that is those years which represent the fullness of Biran's political career.

And here is the first contradiction: the existence of Biran is marked by the intimate disagreement between the need and the pleasure of a public and worldly life and refusing it. The diary is not only a faithful transcription of the disagreement, but is also an indicator, a contrast element for darkening and distancing the real around the act of the reflection. The diary establishes the relationship with public life as a space of introspection and personal growth. On the one hand, it is an attitude which eliminates the danger of a heroic transfiguration of its own role, on the other, it privatises and circumscribes political life in domestic walls and not in a shifted sense. We could talk of the research for domestic happiness to oppose to the logic of appearing and worldliness connected to public life.

The diary thus becomes the "confidant" and careful interlocutor that Biran cannot find in real life. If egotism means a sort of awareness and a culture of the self and the intimate complacency and satisfaction connected to it, Biran is the master, in the discursive form as well as in the substance of its speculative activity (it is not by chance that Stendhal, who also started writing the private diary, admired and studied him). As regards his statements and political evaluations, the mystical conclusion of his spiritual progress and the severity of the reasoning carried out in the steps of stoicism, of the Pascal Jansenism and of the quietism that lead to it, have established an undisputable inheritance in their philosophical construction. Let us not forget that the publication of the *Journal*, where the aristocracy of Biran is highlighted, moreover more of moral and intellectual education, has been fragmentary in time and that its reading has been considered accessory by the scholars of Biran who are basically interested in the philosophical writings. On the other hand, within his phi-

losophy of existence, the question of social organisation and its best solutions is considered, although never centrally, as a way of finding a response to the typically 17th century problem of “bonheur,” more than in its autonomy. Furthermore there is the legitimacy of judging the philosopher through the man and not even the public man, but the one consigned to the pages of a diary not destined to be published, (although it was legitimately possible to doubt that whoever keeps a diary does not imagine and does not desire, readers by definition). The first reason for interest in Biran’s Journal comes from these elements: the parable of an intellectual born with the Revolution, whose career embraces the Empire and the Restoration and whose diary offers less the evidence of a controversial historical period than excerpts from private life, since its writing postulates a constant interiorisation of external events.

The second fundamental motive of interest of the Journal comes from this manner of privatising the public. It takes us to heterogeneous analysis plans, leading us on the one hand to the cognitive and propositive models of Biran’s philosophy, and on the other to the transformation of the ‘diary’ genre. The centrality of the subject fixes the contact point. Biran replaces the physiologicistic arrangement of the sensist psychology with an effort psychology based on the activity of the soul. This is the exact opposite of the sensation and that is provided as an immediate witness of consciousness. However, Biran did not only pursue the “effort” as a basis of a new anthropology in speculative abstract terms and on the wave of the thought of Tracy, but also as a personal way of self determination and self analysis. In other words his own personal and earthly experience when exercising the will became a will to access divine grace, was a paradigm of that of all men, and the investigation of the mechanisms of his own psycho-affective life advanced in line with that on “le sentiment de l’effort” which in turn was configured as a theory of knowledge. The series of works on the same problem and the mechanisms of support and reference between the diary and philosophical works can come as no surprise since the self is the object of the writing of the diary and at the same time the principle of philosophical research.

6. Atmospheric weather and weather of the soul

Now all this passes through the consciousness of your own body as a means of measuring and controlling the instability, both the internal physiological one and the external one, the former strictly dependent on the latter. When transcribing the daily events, the meteorological notations (about the heat, the cold, the rain, the wind, the imperceptible changes from one to another as well as sudden changes, in the form of a very sensitive interior barometer), notations heralding uneasiness which progressively expand from the brain to the stomach and the limbs, precede the reflections on any event, public or daily life.

The connection between atmospheric weather and its effect on a psycho-physical level from the theories of the *idéologie* or from the system of

causality climate/behaviour so dear to the philosophes, loses the neutral tones of the scientific discourse and the initial optimism of those who, in the road finally reached, think that they can cancel the uneasiness by recognising it and indicating it. This was a matter he also dealt with in a different manner in his role as guardian of public health: as vice-prefect of Bergerac, Biran promoted, amongst other things, the foundation of a Medical Society, whose job also included drawing up a Plan of medical topography, the first step towards general Statistics in France to improve the living conditions of its inhabitants. It considered the nature of the soil, its products, the healthiness of the air and of the water, eating habits, temperament and the character of individuals, as well as endemic, epidemic and sporadic illnesses of men and animals. In the eyes of the members of the Society meteorological observations represented a privileged means of investigation: they were assigned to a Commission consisting of four members who were positioned in the cardinal points of the "arrondissement." They were responsible for controlling the daily changes of atmospheric phenomenon and then including them in a monthly bulletin (Tisserand, 1982, V, X-XI; 13-15)). If, by cataloguing the external conditioning of the organism, the man of science publically modified "la quête du bonheur" in the sense of a psycho-physical well-being and moved the behaviour models into the medical field by planning them, the psychologist did not find certain replies to the problem of the unawareness of the modifications made by the external agents and concluded with an anticipating eye which moved the terms of the problem of the research and nature of happiness to a level which we now call psycho-somatic: basically neither obtaining nor the possible and absolute definition of happiness count, but the feeling of living with fullness conditioned by our physical state.

The datum of the meteorological instability dictates the time of the writing in the diary and ratifies the oppression of the present. We find ourselves up against a broken interior time, without footholds in the real world which permit any planning, in which the act of keeping a diary becomes the attempt to transcribe something missing. Also that trust in the perfectibility of the 'Human efforts', that a diary initially implies, are then lost, while the moral movements of the soul correspond to a book-like universe created by others (if not Montaigne it is Pascal, if not Pascal it is Fénelon, and so on with the ancient and modern moralists, all more real interlocutors than the living ones), because for Biran his own 'scientific' writing is surrounded by the same mist, it becomes an enemy, and can only be powerlessly reflected in the diary. In the light of these considerations, however paradoxical they may seem, the Journal of Maine de Biran marks the turning point of the secularisation of the 'diary' genre when the outcomes of the interior progress of the individual are of a religious nature. Biran is also secular in the way he, himself, puts man on the same level as all things and in making his moral of effort vain in the self consciousness of his own changes of humour. "Le corps me fait la loi" (Gouhier, 1954-1957, II, p. 113), he writes after yet another day of crisis. Despite this he continued to defend the rights of introspection, disassociating

himself from the sensist philosophers, for whom it did not have any scientific relevance, which he recognised not only in the purposes but also in the manner of application, as a scientific project directed towards a careful collection of documents and the registration of situations and feelings which were to be compared and analysed.

Biran is, perhaps, the last to experience his own conditioning in subjective terms, as a personal history and not like an illness, comforted by his medical-scientific beliefs and by his class membership, whose advantages he was aware of. A further reason for interest in his *Journal* is to witness a culture still without that emphasising of health in which the illusionary internal symmetry of an individual may entrust itself because it survives the written page. Just a moment before the arrival of neurosis as social inferiority, with *Journal* Biran, perhaps the first to make a more precise idea of the sub-conscious, seems to show how transcription is the only guarantee of the permanence of the self.

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The Present Relevance of Historic Questions. W. Worringer's Psychology of Art and the question how to Design Museum Buildings

*Herbert Fitzek**

Let me start with a very familiar view on traditional museum buildings. Most of them were built as decorative containers for the exhibition of important testimonies of art, science or history. New art museum buildings often do not confine themselves to exhibiting works of public interest; they themselves constitute spectacular examples of architecture and thus can claim to transmit an aesthetic message of their own.

Like the shape of the buildings, the appearance of the art exhibits has changed as well. The scenery has become increasingly detached from the walls of exhibition halls and entered the rooms and spaces available. Modern art confronts the visitors with extended displays – for example collages, installations or environments – occupying complete rooms, floors or staircases of museum buildings. Art presents itself as architectural, whereas the buildings appear to be vital representatives of contemporary art.

In so far as the interference of art and architecture in new museums of modern art is an up-to-date and challenging development, the current cultural industry is highly motivated to shape exhibition areas in an attractive manner. As a consequence, visitor's research is strongly focused on the acceptance of the new museum buildings and the collected art. Meanwhile a number of methodological tools have been developed to detect preferences for and aversions to modern art in general, its particular representations and the architecture of museums and exhibitions. The frequency of visits is measured and new methods have been adopted to design visitor routes through the museum and even to particular paintings (for example, by recording the eye movements of the observers). However, the psychological character of aesthetical experience cannot be identified from methods like these.

In fact the crucial question of how art works and how aesthetical experience is qualified seems to be neglected or even forgotten in contemporary psychology of art. This is the reason why recent attempts to establish a "psychology of museums" have faced such severe initial problems. A German reader on the psychology of museums identifies these problems in the difficulties:

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- that a difference between the experience of art and the experience of architecture cannot be affirmed;
- that “visitors to a museum are not able to verbalize their experiences in an adequate way”;
- that the “traditional empirical-statistical methods of psychology” with their “phantom of experimental generalization” will stick to the methodology of natural sciences instead of shifting to “original (non-reactive) methods” which are more appropriate to “the differences of the encounters of man and museum” in better way (Schuster, 2006, p. 44f).

In my view, difficulties like these are not inevitable. They can be discussed or overcome by reflecting on the historical debates in psychology. Going back to the history of the psychology of art, the questions mentioned above can be answered thus:

- There are early conceptions of psychological aesthetics which do not distinguish aesthetic spaces from aesthetic objects.
- There are early conceptions which do not abbreviate aesthetical experiences, but document and even intensify them by means of (aesthetical) descriptions.
- There are early conceptions which prefer a phenomenological approach – not because they are not yet used in statistical applications, but because they find that they are not adjusted to the realm of mental life.

More than changing one or other ideas of contemporary psychology, the view on history provides a reminder of the (almost) forgotten issues which are still waiting to be worked on by psychology in general and particularly by psychology of art:

- What is the psychological character of aesthetical experience?
 - How do objects gain their aesthetical character in space and time?
- and with respect to our special topic:
- What kind of psychological experience emerges from the increasing transitions of art and architecture in contemporary museum buildings?

An inspiring, but meanwhile almost forgotten, attempt to answer those questions on the basis of a psychological concept was published exactly a hundred years ago by the German aesthetician Wilhelm Worringer (1881-1965). His doctoral thesis on *Abstraction and Empathy* stated an autonomously

Wilhelm Worringer



psychological fundament of aesthetical issues, thus starting an extensive debate on the psychological origins of aesthetical impressions in the intellectual elites of pre-war Germany: “Our aesthetics is nothing more than a psychology of the classical feeling for art. No more and no less” (Worringer, 1908/53, p. 123).

Worringer’s psychological concept of reception processes shows a way out of the objective or formalistic dead-ends which had become increasingly self-evident in the aesthetics of the 19th century. They point to a phenomenological approach to art reception which is

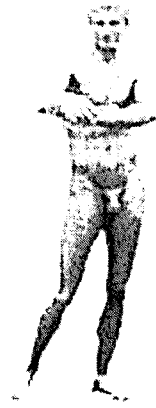
hardly to be found in former aesthetics and even nowadays rarely applied on aesthetical questions. In addition to reminding the psychology of art of its historical foundations, Worringer's anniversary proves to be a valuable means of highlighting scientific debates and transforming them into new and original solutions.

Worringer's essential contribution to the psychology of art commits itself to a prominent discussion in fin-de-siècle aesthetics, which was centred on the psychological character of "empathy" ("Einfühlung"): "Modern aesthetics, which has taken the decisive step from aesthetic objectivism to aesthetic subjectivism, i.e. which no longer takes the aesthetic (object) as the starting-point of its investigation, but proceeds from the behaviour of the contemplating subject, culminates in a doctrine that may be characterized by the broad general name of the theory of empathy" (p. 4).

In his doctoral thesis of 1908 Worringer explicitly refers to the writings of Theodor Lipps, in which he identifies an exchange of subject-object relations as the core of aesthetical experience: "The simplest formula that expresses this kind of aesthetic experience runs: Aesthetic enjoyment is objectified self-enjoyment. To enjoy aesthetically means to enjoy myself in a sensuous object diverse from myself, to empathize myself into it" (p. 5).

Worringer's point of view is often assessed as an attack against Lipps' post-romanticist paradigm of empathy. Indeed Worringer presented his treatise as a criticism of Lipps' metaphysical conception of art und art reception, trying to give evidence to a general tendency to unite subject and object. Yet it should not be overlooked that his criticism does not deny the principle of empathy. In his phenomenological analyses Worringer confirmed its outstanding meaning, but he also pointed to its limits and to opposing tendencies.

With reference to specific artistic cultures – e.g. the classicism of ancient Greece and Rome – empathy can be defined as the main character of aesthetical experience: "As such a man of the earthly world, in whom sensuousness and intellect move likewise, full of confidence, within the world-picture and dam back all 'dread of space', we may imagine the pure Greek" (p. 46). As for the Greeks and their aesthetical descendants in Renaissance and



Theodor Lipps



Classicism, empathy may deliver a sufficient explanation for the effect of art on recipients.

Worringer's arguments against a universal theory of empathy however begin with a reference to cultures – e.g. that of the ancient Egyptians and Orientals – which balk at a comparably compassionate approach to art: “With the Oriental, the profundity of his world feeling, the instinct for the unfathomableness of being that mocks all intellectual mastery, is greater and human self-consciousness correspondingly smaller. Consequently the keynote of his nature is a need for redemption [...] as regards art, it leads to an artistic volition directed entirely toward the abstract” (p. 46).

In the history of aesthetics Wilhelm Worringer's psychology of art is often seen as opposing the theory of “empathy” and generating a converse and alternative concept of “abstraction.” Scarcely is it noticed that Worringer did not only show the distinctions but also the consistent moments of aesthetical experience in general:

If we now repeat the formula which we found to be the basis of the aesthetic experience resulting from the urge to empathy: ‘Aesthetic enjoyment is objectified self-enjoyment’, we at once become conscious of the polar antithesis between these two forms of aesthetic enjoyment [...]. These two poles are only gradations of a common need, which is revealed to us as the deepest and most ultimate essence of all aesthetic experience: this is the need for self-alienation (p. 22).

In looking for the interrelation between empathy and abstraction, we can detect a common basis of aesthetical experience which is often overlooked in his booklet. Worringer doubtlessly names the psychological basis of aesthetical experience as a tendency to “self-alienation,” which obviously is not limited to art works but may be seen as a general characteristic of the correspondence of subjective and objective moments of reality (literally translated, “Selbstentäußerung” means the transfer of an ‘inner’ reality to an ‘outer’ world of objects).

On the one hand we have a tendency to express our experience of mental life, to share it with the objects surrounding us and recollect it from the reflections we receive from the outer world: “The process of empathy represents a self-affirmation, an affirmation of the general will to activity that is in us [...]. In empathizing this will to activity into another object, however, we end up *being* in this object. We are delivered from our individual being as long as we are absorbed into an external object, an external form, with our inner urge to experience” (p. 24).

On the other hand we are shy and frightened by experience and try to get stability and security from the outer world: “In the urge to abstraction the intensity of the self-alienative impulse is incomparably greater and more consistent. Here it is not characterized, as in the need for empathy, by an urge to alienate oneself from individual being, but as an urge to seek deliverance

from the fortuitousness of humanity as a whole, from the seeming arbitrariness of organic existence” (p. 23f).

Taken as a whole, the two principles of mental life (or even “organic existence”) characterize a bipolar intercourse of going beyond the borders of subjectivity in order to participate in an objective world and simultaneously constructing a barrier against uncontrollable effects from the outside world. For Worringer – following the argumentation of Goethe, Schelling and Nietzsche in this respect (cf. Fitzek, 1994; Öhlschläger, 2005) – the constitutional ambiguity of fear and attraction is the paradoxical basis of all organic existence. Aesthetical experience thus can be seen as a prototypical way of managing its opposing consequences.

By offering ways of an empathical identification with the objects of an outside world, art is able to bridge the frightening gap between inner and outer experience. By supplying means to defend oneself from the influences of an outer world, art serves as a protection of a sensitive sphere of inner existence, thus modeling two modes of the subject-object-relation for the correspondence with mental life worlds. Following this point of view, empathy and abstraction are no longer competing theoretical models of the psychology of art, they represent the double necessity in human life to settle a flexible but solid subject-object-relation, thus coping with the original ambivalence of complementarily and difference in the mental constitution of objects.

Pursuing the issue a little further would lead into the fascinating spheres of object-genesis as it is uncovered by the developmental concepts of psychology and psychoanalysis (e.g. by Freud, Spitz, Winnicott; cf. Heubach, 1986).

In this context I will restrict myself to the topic of my particular interest and end with some reflections on the consequences of Worringer’s theses for the architecture of modern art museums. Going back to the starting point of my considerations I asked for a psychological concept to identify the startling interference of/interaction between art and architecture in the spatial presentation of modern art. Worringer’s conception of art points to the (psychological) fact that it does not make sense to differentiate the effects of art on the one hand and of architecture on the other (in fact Worringer made no substantial distinction between painting and architecture). According to Worringer’s idea, the relation of art and architecture must not start with different media, but with the bipolar structure of aesthetical experience that is to be managed in any manifestation of art.

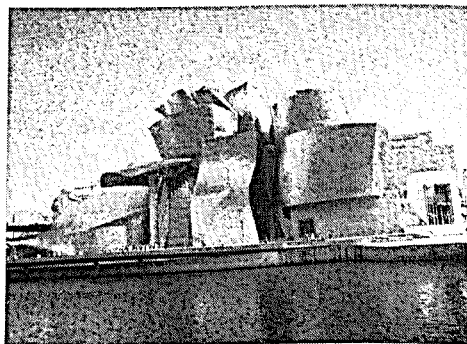
The buildings which present and exhibit art are therefore – deliberately or not – closely entangled in the effect of art. According to Worringer’s theory, they participate in the ambiguous exchange of subjective and objective processes and tend in the one or the other direction of the aesthetical impact.

On the one hand we have the close encounter of space and art attracting the audience’s attention and creating a dense sensual or material impact. Museums like the famous Guggenheim buildings in New York (by Frank Lloyd Wright) and in Bilbao (Frank Gehry) create an atmosphere of merging

outer and inner spaces, shifting pieces of art and architecture into a sensual totality. Conspicuously, museums like these seem to restrict the individuality of single pieces of art. To avoid inspiring only indifference, art here has to concur with the dominance of architecture.

On the other hand we find museums of much more sober or discreet appearance. Sometimes plain or even insignificant from the outside, they allow the art exhibits to take centre stage; in other words, they offer spaces for a more objective (i.e. object-adjusted) presentation of the works. Museum buildings of this type are less spectacular and, as a consequence, often not as famous as the others and as the works they present (as an example, we did an analysis of the Wallraf-Richartz-Museum in Cologne, which was built by the German architect Oswald Matthias Ungers).

Analyzing the different – almost opposing – effects of the presentation of modern art in new buildings, we can use Worringer's hundred-year-old concept in order to avoid a superficial assessment of the use and value of art and architecture. Worringer points to the balance of accordance and distance between aesthetical subject and object, which must be mastered in all kinds of art presentation. A museum design may be restrained or spectacular: either way it has to handle the range of transitions between subjective and objective reality which endeavour to uncover more (empirical) details of the different ways in which new museum buildings present and fulfil this (aesthetical) range.



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The History of Forensic Psychology: A critical review

*Romy Greco, Antonietta Curci**

1. Introduction

Forensic Psychology (FP) is one of the youngest, most popular and fastest growing fields of psychology, studied today. FP is the intersection between Psychology and Law, and like many branches of Psychology it is difficult to define precisely. The word forensic derives from the Latin word *forum* which was the place of public gathering in the Roman cities where the process of justice was carried out through debates. Therefore, according the etymological meaning, FP is the application of Psychology to matters concerning the court of law. Coherently, Haward considered FP as "that branch of applied psychology which is concerned with the collection, examination and presentation of evidence for judicial purposes" (Haward, 1981, p. 21). However, the current trend is to use the term FP when referring to any topic which is in some way connected with crime. Consistent with this broader definition, Bartol and Bartol (1987) considered FP as the research endeavour examining the aspects of human behaviour directly related to the legal process, as well as the professional practice of Psychology within, or in consultation with, a legal system that includes both civil and criminal law. In line with the tendency to consider FP as an umbrella including all the possible intersections between Psychology and Law, in 1999 the British Psychological Society renamed the Criminological and Legal Psychology Division the FP Division.

The narrow definition of FP is partially connected to the history of this discipline. Indeed, as will be discussed in the following paragraphs, psychologists have long and hard struggled to be admitted as expert witnesses in courtrooms. Coherently, some authors view FP as focused on the contribution of psychologists to judicial purposes. However, once psychologists had been admitted as expert witnesses, it became evident that they could contribute to the law in a variety of ways. For example, forensic psychologists can train and evaluate police or other law enforcement personal. Also,

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they may do research ranging from examinations of eyewitness testimonies to learning how to explain deviant and aggressive behaviours. Additionally, psychologists can work in prison or correctional services, juvenile detection facilities, psychiatric services, community mental health centres federal and local law enforcement agencies. In conclusion, there are many ways in which Law and Psychology can interact on a variety of topics, so the broader definition of FP is actually preferred.

2. The Psychologist as an expert witness in forensic context: a hard battle

Although the relationship between Psychology and Law has always existed, the most significant landmark in the history of FP was the founding of the first psychological laboratory by Wundt (1879) in Germany. Before this moment psychologists were uninterested in conducting research on law-related topics, and had little inclination to specialize in law-related themes. Inspired by Wundt's work, many European and American psychologists started to apply psychology to forensic matters.

Considering the American context, one of the first places to conduct research on law-related topics was Cattell's laboratory in the 1890s. Cattell began experiments on the psychology of testimony using students from Columbia University (1895), asking them to provide a response on a variety of topics and then rate their degree of confidence in their answer. He found that the majority of students gave inaccurate answers while their confidence was high. These findings generated interest among other psychologists who began to perform experiments on eyewitness testimony. Münsterberg is known as the father of applied psychology, who had persuaded the public that psychological knowledge could be applied to many fields including law. He was trained in Germany by Wundt and arrived in the United States in 1892 to direct the experimental laboratory at Harvard University. Performing many experiments on witness memory and false confessions, in 1908 he published the first professional book on FP: *On the Witness Stand*. Another very prominent figure in the history of FP was the American psychologist Marston. He was a student of Münsterberg and conducted many experimental works on the physiological effects of deception. In 1917, Marston found that systolic blood pressure had a strong correlation to lying. This discovery would later lead to the invention of the modern polygraph detector.

Regarding the European context, Binet was the pioneer of psychological testing in a forensic context. Indeed, he developed the first psychometric test of intelligence (1905), the principles of which have provided the basis for later forensic assessment on police, soldiers, and criminals. Also, Binet was one of the founders of the first psychological laboratory in France at the Sorbonne in 1889. Another key figure was the German psychologist Stern. Following Cattell's findings on witness recall in America, he asked

students to examine a picture for forty-five seconds and then try to recall what was happening in it. Stern (1901) discovered that errors were common among the witnesses, and that the lead-in questions were able to produce false memories. In sum, the application of psychology on forensic topics in Europe and United States can be traced back to the early 1900s, with contributions focused on memory and psychological testing. However, it is only in the last thirty years that psychologists have been accepted as expert witnesses. At the turn of the century, although psychologists improved the knowledge of human behaviour, they were not accepted as expert witnesses in courts.

In 1897 Schrenk-Notzing was the first psychologist to enter a European courtroom, testifying at a murder trial about the effect of suggestibility on witness testimony. Drawing on research into memory he argued that pre-trial publicity influenced the witnesses' recall so that they could not distinguish between what they actually saw and what had been reported in the press. In this case, the accused was convicted on the basis of solid evidence independent from witness testimony. Another early example of a psychologist in court was Varendonck, who testified in Belgium 1911 at a murder trial in which a man was accused of killing a child. The two witnesses were two children of 8 and 10 years of age, who gave inconsistent and conflicting accounts. Designing a series of experiments, Varendonck found that child witnesses were inaccurate in their recall of important events because they did not possess the mental capacity of adults. On these bases, he sustained that child testimony should not be admitted in courts. The jury found the defendant not guilty.

Considering the admissibility of psychologists as expert witnesses in the American context, significant differences between civil and criminal cases were considered in the early 1900s. Indeed, while American psychologists served as expert witnesses providing information to civil courts before the 1920s (Comment, 1979), they were systematically rejected for criminal cases until the 1960s. For example, in the case of the Coca-Cola Company vs Chero-Cola Company (1921) an experimental psychologist was asked whether the trademarks used by the two companies were so similar as to be likely to cause confusion in the public mind and then mislead the consumer. Nevertheless, it was in the 1940s and 1950s that psychologists more regularly testified in civil courts offering opinions and presenting data relevant on the influence of pre-trial publicity on juries, the effect of certain educational practices on children, and the likely influence of advertisements on consumers (Loh, 1981; Louisell, 1955). Another early example of a psychological contribution to a civil court is the desegregation case of *Brown vs Board of Education* (1954). In this case, two social psychologists experimentally demonstrated that children did not treat African-American and Caucasian-looking dolls in the same way. On these bases they testified that separate public schools for black and white students denied black children equal educational opportunities. As a result, racial segregation was ruled a

violation of the Equal Protection Clause of the Fourteenth Amendment of the United States Constitution.

In criminal cases, especially those involving the defendant's mental state, psychological testimony was rejected for a long time. In the early 1900s, a decided preference in the witness selection for medical (physician and psychiatrists) over non-medical experts, associated to the resistance of medical experts might be responsible for the rejection of psychological testimony in criminal cases. During this period, medical experts were considered as more credible witnesses than non-medical experts by the legal system. Also, medical experts organized active oppositions stating that only medical professionals should be allowed as experts since sanity was conceptualized as disease. Consequently, it was only in 1921 that an American psychologist was admitted to testify in a criminal court as an expert (*State vs Driver*, 88 W.Va. 479, 107 S.E. 189 [1921]).

In this case, the psychologist was admitted as an expert on the topic of juvenile delinquency, although the court rejected his testimony since his conclusions were based upon psychological testing data. Specifically, the court considered these methods inadequate to detect lies on the witness stand. Therefore, while psychologists began to be admitted as expert witness in court, the methods of psychological science were not considered reliable enough to support the court's decisions.

In 1923, the psychologist Marston testified in the case *Frye versus the United States*. This case is significant because it established the precedent for the use of expert witnesses in courts. Specifically, Marston proposed the use of the blood pressure deception test to determine the innocence or guilt of *Frye*, who was accused of murder. The prosecutor's objection to the use of the test was supported by the judge, who ruled that the method lacked sufficient acceptance in the field to be considered an admissible evidence. Subsequently, the Federal Court of Appeals confirmed this ruling sustaining that an expert must formulate opinions on methods which were adequately established to have gained general acceptance in one's professional field.

World War I brought an end to most studies and interventions by psychologists in the forensic field. Significant growth in FP did not happen until after World War II. In the post-war era, Appellate courts began to allow qualified psychologists as expert witnesses on the issue of mental responsibility for criminal conduct. However, the first influential decision was the *People vs Hawthorne* (293 Mich. 15, 291 N.W. 205 [1940]). Hawthorne had been tried for the murder of his wife's lover and had pleaded not guilty by reason of insanity. The trial court refused to consider an eminently qualified professor of Psychology as an expert witness. In finding that the trial court had erred in not accepting the psychologist as an expert, the Michigan Supreme Court ruled that the standard for determining expert status was in the extent of knowledge of a subject, not in whether or not the witness had a medical degree.

After this pronouncement, the opposition of medical experts and psychiatric groups to the acceptance of psychologists as expert witness, became

stronger. This situation culminated in 1954, when the Council of the American Psychiatric Association, the Executive Council of the American Psychoanalytical Association, and the American Medical Association joined in a decision stating that only physicians who were legitimate experts in the field of mental illness could be employed for purposes of courtroom testimony. Furthermore, other individuals could only participate if their testimony was coordinated by medical authority. This decision significantly influenced trial courts which became reluctant to accept independent psychological testimony, and medical specialists continued to be seen as more credible witnesses (Miller, Lower & Bleachmore, 1978).

In 1962, a landmark decision was made in the *Jenkins vs United States* case. The District of Columbia Court of Appeal offered a conditional, yet influential ruling that a lower court had erred in excluding psychologists as expert witnesses in a case on criminal responsibility. Specifically, the *Jenkins* ruling states that a specific type of training did not automatically include or exclude one from being admitted as an expert. By permitting the courts to admit different professions as expert witnesses, this rule produced an increase in the utilization of psychologists as experts in both civil and criminal cases. Several factors might be responsible for this evolution. Firstly, since 1965 there has been an explosion of literature and research in all areas of FP with an exponential increase of articles and books related to FP published (Tapp, 1976). As Loh (1981) observed, FP had come of age. Secondly, from the late 1970s clinical psychology obtained the licensure as an independent profession, so that psychologists gained general acceptance by society as independent mental health professionals. Thirdly, in the same period specific laws were enacted that allowed patients to be reimbursed for psychological services by insurance companies. As a result, mental health care, especially health care provided by psychologists, became available to most of the population. Together these factors might have contributed to the general acceptance of psychologists as mental health professionals for society. Since the court is a reflection of society (and by this time all court participants, such as the judge, jury, and attorneys, had become familiar with the works of psychologists), it was natural that psychologists expertise should be brought into the courts.

In the years following *Jenkins* ruling, the Federal Rules of Evidence (FRE, 1975) were legislated and many State courts have adopted these rules to date. Five primary Federal Rules of Evidence govern the admissibility and standards of expert testimony. Of particular interest here is Rule 702, which states that "if scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify in the form of an opinion or otherwise." Essential to Rule 702 was the absence of any mention of the expert opinion having to conform to general acceptance within the field. As a result, different courts came to different conclusions regarding the standard that should be applied to expert testimony. In order to resolve this confusion, the Supreme Court granted

certiorari in a case referred to as *Daubert vs Merrell Dow Pharmaceuticals*, concluding that the Federal Rules of Evidence in general, and Rule 702 in specific, replaced the Frye standard. In addition, the Court observed that the trial judge had to ensure that the expert testimony was relevant as well as reliable. In order to help determine both relevance and reliability, the Court established four factors: whether the expert's analysis derives from a scientific method that can be or has been tested; whether the expert's method has been the subject of peer review and testing; the actual or potential rate of error in the expert's methodology; and whether the relevant scientific community generally accepts the expert's methodology. Additional recent rulings continue to illustrate what appears to be an increase in the scientific rigor desired of expert testimony by courts. As such, these rulings have progressively required testimony to be reliably supported by established methods in an expert's given scientific community.

3. Current problems and future directions of Forensic Psychology

The acceptance of the psychologist as an expert witness is the result of an extremely long and hard battle. Indeed, it is only in the last thirty years that psychologists have been almost systematically involved in judicial decisions. However, is this acceptance today actual or apparent? Considering the previously discussed FP historical landmarks, it is evident that the greatest points of contention in the acceptance of the psychologist as an expert witness concerned the preferences for certain professional credentials and training (medical versus non-medical), as well as scepticism for social science methods. Analyzing the current FP literature, and the daily professional practice, it becomes evident that these themes remain issues of debate. For example, a continuing preference for medical experts was identified by Redding, Floyd and Hawk (2001). Specifically, these authors found that a considerable cohort of trial judges and attorneys subjectively favoured psychiatrists as expert evaluators by over a two-to-one margin. Moreover, scepticism remains regarding whether the methodology of social sciences and the practice of clinical mental health allows sufficiently valid conclusions to be admissible in court (Hagan, 1997).

Why is it so difficult for the forensic actors to accept psychologists as expert witnesses? Both the preference for medical experts and the scepticism for social science methods might be justified by philosophical differences between psychology and law. Slovenko (1973) reviewed many of these differences between these disciplines. For example, lawyers use an adversarial approach (or the fight theory) to arrive at the truth, while psychologists often work together in an attempt to understand a research problem or a difficult patient. Also, lawyers are concerned with assigning moral responsibility, guilt, and blame to others, while psychologists are trained not to moralize or to make moral judgements about others. Moreover, the law is

often anti-theoretical, in the sense that theory gives way to individual cases and their resolution, while psychology is heavily invested in theory. General theories are important for psychologists, so that many psychologists identify themselves professionally as adherents to one theoretical school (psycho-analytic, behavioural, cognitive) or another. As a result, there is inherent heterogeneity in mental health professionals, and a lack of an unanimously accepted theory of human behaviour that supports the accurate prediction of behaviour.

Finally, Melton, Petrila, Poythress and Slobogin (1997) posited that considerable philosophical differences exist between behavioural science and law regarding the certainty of conclusions. Specifically, inherent limitations in the social sciences characterize the psychologist's ability to specifically define, label, and predict human behaviour. For example, when psychologists formulate forensic opinions, they are obligated to stay within the bounds of empirical support. Consequently, they have to report the empirical findings supporting their opinions, further than the limitations of the research design, limited populations for whom the findings may be applicable, and the specific conditions under which the findings may hold true to a scientific level of probability ($p > .05$). Conversely, legal proceedings are usually determined to a reasonable degree of psychological probability which is something analogous to more than 50% of the time. So, a natural conflict appears when the legal profession attempts to summarize a series of logically imperfect psychological probability estimates into a concise decision.

What can psychologists do to be actually accepted in a forensic context? Firstly, psychologists should improve the scientific credibility of their expert testimony. One way to achieve this goal is through the appropriate use of psychological testing. Currently, especially in American and Italian contexts, legal advocates are more concerned in the test's relevance when considering the admissibility of the expert's testimony than its accuracy, reliability, and validity. Consequently, in everyday forensic practice, it is not unusual to encounter psychologists using old psychometric instruments, without any validity research, and which are not adequately documented. However, this situation threatens the credibility of psychological expert testimony. Accuracy, reliability, and validity should be crucial to the scientific acceptability of psychological tests. Heilbrun (1992) provides useful guidelines for the appropriate use of psychological testing in forensic assessment. Firstly, the test used must be adequately documented, reviewed by scientific literature, and needs to contain a manual describing the test's development, psychometrics, and procedure. Secondly, the reliability of the test chosen should be considered carefully. Thirdly, the test selected must be relevant to the legal issue addressed, and the relevance should be supported by published validation research. Also, the standard administration recommended in the test's manual should be used. Finally, the finding from a particular test should not be applied for a purpose for which the test was not developed. On these bases, psychologists need to improve their knowledge and competencies in psychological forensic

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assessment, with the aim of using the most reliable and valid measurement instrument for the specific issue.

In order to be actually accepted in a forensic context, psychologists should also overcome the scepticism regarding the actual utility of their contribution. Indeed, even if they cover many issues in the legal system and appear to help judges and juries make informed decisions, their expert testimony has received much criticism regarding its usefulness. For example, Faust and Ziskin (1988) believe that the expert's testimony will reflect clinicians' biases and can mislead juries. Reviewing a series of studies, the authors showed that clinicians' error rate exceeded their accuracy rate. On these bases, they sustained that it was difficult to achieve interclinician agreement on descriptions of current status. Also, Faust and Ziskin stated that generally clinicians are not experienced in the forensic role because they are more familiar with the role of helping patients. Therefore, the tendency of the clinician to empathize with people will confuse the jury's decision.

This scepticism is applicable only to situations which lack a clear distinction between the work of the psychologist in clinical and forensic settings. For example, there are some proceedings involving children or adolescents, where the legal actors believe that the psychologist who has already worked with children in a clinical setting should also provide the forensic assessment. This can be a very dangerous situation because the clinical treatment should be very different from forensic evaluation, and the same professional cannot assume these two different roles. In forensic assessment, psychologists should work in a prescribed manner, address a defined set of events established by the legal dispositions, assess the accuracy of a client's viewpoint, maintain emotional distance, recognize exaggerated or faked symptoms, verify the consistency of factual information across multiple sources, and use instruments with precise qualities. Differently, in clinical situations the psychologist can work exclusively according to his own theoretical orientation, address a set of issues identified in cooperation with the patient, focus on the subjective client's point of view, and work toward developing a trusting and empathic therapeutic alliance. In conclusion, Faust and Ziskin's argument against the use of expert testimonies in the courtroom are justified by the malpractice in confusing the role.

Another way for the psychologists to be accepted as expert witnesses is to promote and protect the integrity of their discipline as well as their work in the forensic context. In order to obtain this goal, psychologists should maintain objectivity in assessments, remain within the bounds of scientific findings in reports and testimony, and openly acknowledge the limitations of the social sciences (Ewing, 1985; Hess, Weiner, 1999; Melton et al., 1997). However, observing the daily professional practice in American and Italian forensic contexts, a very different picture emerges. Legal professionals (lawyers, prosecutors, and jurors) tend to ask for a firm answer or prediction to a particular question about human behaviour. This tendency creates problems for the psychologist who appreciates the impossibility of making a

statement of such specificity. Although he/she rarely has the courage to say "My science is a probabilistic discipline, so I am not able to give you a certain answer, but I can give you one of the most probable." This difficulty might depend on the psychologist's perception that his/her work in a forensic setting is directed to provide expert evidence, and other forms of assistance for the purpose of legal professionals. However, this is an incorrect perception reflecting a relationship between law and psychology where one is the employer and other is the servant. Similarly, when interacting with jurors, psychologists tend to focus upon what they say about his/her discipline rather than review their ability to make these comments.

It is necessary to develop open and critical attitudes, as well as to be open to different approaches. These goals are not possible where one discipline is at the service of another. Open and critical attitudes can be achieved through the development of education and training courses, the dissemination of information, and the involvement of professional bodies. Concerning education, there are a very limited number of undergraduate academic institutions that specifically offer a specialization in forensic contexts for psychologists, and on psychological matters for legal professionals. Therefore, it is necessary to develop education and training courses where psychologists and legal professionals can learn specific knowledge and acquire particular abilities. Psychologists need to understand the justice model under which the system functions, and to know the applicable law in order to be able to make legal evaluations. Lawyers and judges need to be prepared to rephrase the question because these are generally not questions regarding psychology but are legal questions. Also they need to know how and when psychologists can help them, and to develop the appropriate ways of assessing both relevance and scientific credibility of the information that the forensic psychologists give them. An open and critical attitude can be achieved also by the dissemination of information. While there are several excellent journals in the fields of law and psychology, and a comparative explosion of such journals is taking place in the UK and the rest of Europe, they tend to be written and read by psychologists, rather than by both psychologists and lawyers. Information needs to be disseminated and used by both psychologists and lawyers in forms that are easily assimilated when required. Lastly, professional bodies should require their members to demonstrate their commitment to continuing education by attendance at certain courses or study of certain materials, as the Law Society in England and Wales already does. In conclusion, only by constructing a relationship based on cooperation and reciprocal respect between forensic actors and psychologists, can the latter actually be accepted in a forensic context. FP has come a very long way in a short time capturing the attention of many people, although to overcome the current problems discussed, it still has a long way to go.

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Demarcating the boundaries of the discipline of psychology: The example of the research on colour perception

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1. Thesis

Looking at the history of psychology up to the present, one gets the impression that there are a fair number of psychological topics that are not researched in psychology proper but elsewhere. At first sight, this can seem puzzling.

It is less perplexing, however, if one employs the distinction between the *science* of psychology and the *discipline* of psychology. Then the phenomenon can be understood thus: There are topics that belong to the *science* of psychology that are not dealt with in the *discipline* of psychology but in other disciplines. This new insight leads to the question of how and why the boundaries of the science of psychology are different from the boundaries of the discipline of psychology. Ebbinghaus, a towering figure in the early history of experimental psychology and famous for his research on memory, is less well-known for his research on colour perception. But it is his research on the latter which can serve to illustrate the emerging of a disciplinary boundary that does not conform to accepted boundaries of the science.

Why is it important to distinguish between psychology as a *science* and psychology as a *discipline*? A science is an area of research, formal or empirical, as the case may be, of a specific subject matter. A discipline, as understood here, is something altogether different. A discipline consists of disciples (or students or pupils) and of teachers (or mentors), of a more or less canonised body of theoretical and practical knowledge, of examinations, and of the eventual graduation (transformation) of the student (after the final examination) to become a member of a socially recognised class of experts or of professionals in that discipline.

A science and its corresponding discipline tend to have the same subject matter, but this is not necessarily so. In the case of psychology the topics belonging to the *discipline* of psychology and the topics belonging to the

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science of psychology are not identical. Thus, many general statements about psychology are easily misunderstood if it is left unclear whether they refer to the science or to the discipline.

2. The Case

Ebbinghaus was born in 1850. He studied in Bonn, and he completed his PhD in 1873 on the "Philosophy of the Unconscious" of Eduard v. Hartmann (Ebbinghaus, 1873). After spending some years as a teacher in England and in France, he became tutor of a Hohenzollern prince in Potsdam. As the days in the Imperial Palace were strictly regulated and monotonous, he undertook the research on memory for which he would become famous. The resulting thesis (unpublished, viz. Ebbinghaus, 1983) enabled him to pass his *Habilitation* examination at the university of Berlin. He expanded his investigation and later published the results in his monograph *On memory* (Ebbinghaus, 1885; English translation: Ebbinghaus, 1913, 1964) for which he is still famous. In Berlin, he ventured into a new field of research: visual perception and specifically colour perception.

It seems obvious that somebody who specialises in psychology could choose such a topic. There is a general consensus that perception is a subject that belongs to the science of psychology, hence colour perception belongs there as well.

But caution is necessary, for here again we discover that without the distinction between a *science* and a *discipline* sentences about psychology without qualification may remain imprecise. In Ebbinghaus's time, there was not much activity, deserving the appellation psychology in the sense of a discipline. Within German universities, there were teachers of psychology and students of psychology, there were even examinations in psychology. But these examinations were part of the state examinations for school teachers, and they were supposed to turn students into school teachers, not into specialists in psychology. It would still be several decades before a full-fledged *discipline* of psychology arrived. So we might say that the *discipline* of psychology was in a state of gestation, and that its boundaries were still very fluid and unsettled. Consequently, colour perception, though part of the *science* of psychology, was not yet established in the domain of the nascent *discipline* of psychology, but the subject matter of various other disciplines.

These other disciplines fluctuated over time. In the 18th century, research in colour was foremost a matter of physics: The physicist Isaac Newton dealt with this topic in his book *Optics* (Newton, 1704, 1718). In the 19th century, colour was still an integral part of the textbooks of physics. Even today in our schools, colour is still taught, if not in art classes, then in physics classes.

The 19th century, however, saw a quiet transformation in physics. All subjective phenomena were gradually eliminated and taken over by sciences like physiology and psychology. For example, the two most prominent figures

in colour theory in the nineteenth century, Hermann Helmholtz (1821–1894) and Ewald Hering (1834–1918), were professors of physiology.

In 1871 Helmholtz would actually become professor of physics in Berlin, but in Ebbinghaus's time he was already a larger-than-life figure in science and had a wide circle of co-workers from physics as well as from physiology.

Ebbinghaus was on good terms with the Helmholtz group when in the 1880s he started to develop an interest in colour perception and colour theory. Helmholtz was the renowned authority on visual perception in general and on colour perception in particular, a reputation originating from his *Handbuch der physiologischen Optik* (1867a)¹, a work published as part of a general encyclopedia of physics which again shows that sciences and disciplines do not necessarily coincide. When Ebbinghaus became interested in visual perception, Helmholtz and his co-workers were working on the second edition of this book (Helmholtz, 1896). This may have been one of the reasons for Ebbinghaus's new interest.

Ebbinghaus's initial research in visual perception did not concern colour but the correspondence between various degrees of brightness of gray and Fechner's psychophysical basic law (Ebbinghaus, 1887, 1889). Once he ventured into colour perception, however, he came upon an unfamiliar subjective phenomenon: the binocular after-image.

2.1. The Pigmental Colour Mixer

But let us first ask what instruments for producing appropriate stimuli were at his disposal.² A visiting American psychologist, William Otterbein Krohn, published a report on the facilities in experimental psychology at various German universities (Krohn, 1892). In autumn 1891, after visiting Ebbinghaus and his tiny psychological laboratories in Berlin, he reports: "He has but little apparatus [...]." One piece Krohn considers rare: "Special mention must be made of a color-mixer so designed that one can change the sectors without stopping the machine. It is very ingeniously conceived, but poorly made by the mechanic." (Krohn, 1892, p. 589). Unfortunately, we have found no description of this instrument by Ebbinghaus or anybody else. Very likely, it was a modification of the classical rotating colour disc, an old and simple instrument and also a children's toy. One of the disadvantages of the traditional colour disc was that one had to stop the rotation if one wanted to change the proportions of the colours. The instrument reported by Otterbein seems to have overcome this inconvenience. The first mention of such an instrument was found in a remark by Nathan Zuntz about the physiologist Julius Richard Ewald presenting one at the tenth *International Medical Congress* in Berlin in 1890 (Zuntz, 1891, p. 270). We shall hear more about such instruments later, but it is curious that in later publications the Ewald instrument was never mentioned – probably because it was so poorly made.

Another hypothesis about the instrument Krohn described concerns

Helmholtz's co-worker and editor of the second edition of the *Handbuch der physiologischen Optik*, Arthur König, a physicist and former assistant of Helmholtz's who at Helmholtz's request worked in the Physiological Institute. In May 1891, König presented to the *Physikalische Gesellschaft* in Berlin an instrument similarly capable of enabling changes in the proportions of the colour sectors during rotation, conceived and constructed by the mechanic of the Berlin Physiological Institute, W. Oehmke (König, 1892). Since König and Ebbinghaus worked closely together as co-founders and co-editors of the *Zeitschrift für Psychologie und Physiologie der Sinnesorgane* in 1890, Ebbinghaus could plausibly have borrowed this colour disc, and would certainly have been able to use it in the Physiological Institute.

2.2. *The International Congress of Psychology 1892 in London*

Without a doubt, Ebbinghaus had rather modest research equipment. Nevertheless he confidently developed a new theory of colour perception and presented it to the public at the second *International Congress of Psychology* in London in August 1892 (Ebbinghaus, 1892). Comparing the rival theories of colour perception by Helmholtz and by Hering, he gave preference to the Hering theory which he tried to develop. This was quite courageous on his part, as Helmholtz himself was present.

We know of Helmholtz's presence from an anecdote reported by James Powell Cocke Southall in a footnote to an appendix to his translation of the third edition of Helmholtz's *Handbuch der physiologischen Optik* (Helmholtz, 1924a, 1924b, 1925). The author of this appendix, Christine Ladd Franklin (or Ladd-Franklin), was not only present at the congress in London, but presented a paper immediately after Ebbinghaus on the same topic, colour sensation (Franklin, 1892). According to the anecdote, when these two papers were discussed later that evening, the venerable Helmholtz was quite unequivocal in his analysis of the merits of the two papers and the two speakers: "Ach, Frau Franklin – *die versteht die Sache*" (Southall's footnote in Ladd-Franklin, 1924, p. 455). Ebbinghaus's name is charitably omitted, but a fleeting look at the congress proceedings quickly reveals the identity of the person who does *not* understand the matter.

Southall, born 1871, was certainly not a witness to this remark, and it is quite probable that Franklin herself told him this anecdote, which was subsequently recounted in print on various occasions (Ladd-Franklin, 1927, p. 8; 1929, p. 148).

In London, Ebbinghaus had certainly lost a significant contest, but against whom? The American psychologist Christine Franklin, née Ladd – who in fact signed later publications Christine Ladd-Franklin³ (1847–1930) – had studied mathematics at Johns Hopkins, and later became interested in vision and colour perception. In order to pursue her studies she travelled with her husband to Göttingen to work with Georg Elias Müller. Then she went to

Berlin for the summer-semester 1892 and managed to obtain a special admission permit – in those days women had no access to the university. There she worked with Arthur König before leaving for the London congress in August 1892 where it seems she put Ebbinghaus to shame.

2.3. *The Spectral Colour Mixer*

Ebbinghaus nevertheless tenaciously persisted in his research on colour perception. In 1893 he published the full paper in which he explained how and why he came to develop his theory (Ebbinghaus, 1893a, 1893b). Here he mentioned experiments with a totally new kind of colour mixer, “an apparatus for mixing colours belonging to Mr. Helmholtz, who most obligingly permitted me to use it as I do not possess experimental devices” (1893a, p. 173).⁴

What kind of an instrument is this? It is not a rotating colour disc, but something much more sophisticated. Franklin, who had also worked with this instrument when in Berlin, renders the German term “Farbenmischapparat” as “the great Helmholtz instrument for mixing specific light frequencies” (Ladd-Franklin, 1924, p. 460; 1927, p. 12; 1929, p. 154). In other words, it is a device which allows the experimenter to mix spectrally pure light, and to present the mixture to the eye of an observer.

The relatively antiquated colour disc has a disadvantage that is not obvious to the eye of the uninformed observer. The pigments of the colour discs may appear to reflect pure colours, but this is usually an illusion. A pigment rarely reflects only one confined segment of the colour spectrum. Usually it reflects a complicated array of different frequencies, even if the phenomenal result looks like a pure colour. The eye is not trustworthy in such circumstances, and one would need a spectroscope to discover which parts of the spectrum the pigment absorbs and which it reflects. If one mixes the reflections of two different pigments with a rotating colour disc, this problem is exacerbated. In general, the specific nature of the optical stimuli produced with the colour disc is not known. This fact certainly diminishes the value of such experiments severely.

Ebbinghaus was, of course, aware of this problem, and in his *Grundzüge der Psychologie* he remarked on rotating colour discs: “[...] with this method, one is usually obliged to use pigmental colours that are physically strongly mixed, and if one does not know exactly the composition of this mixture one might be misled about the value of the results” (1897, p. 210).⁵

Therefore it was indispensable to use pure spectral light as stimulus in experiments on colour vision. The 19th century saw a number of attempts to build instruments for exactly this purpose. The first suitable apparatus was constructed by the Berlin mechanics Franz Schmidt & Hermann Haensch, and presented to the public in 1879.

Helmholtz described it extensively in the second edition of his *Handbuch der physiologischen Optik* (1889, pp. 355-357). Arthur König and Conrad Dieterici describe it at length in Ebbinghaus' and König's journal (König,

Dieterici, 1893). When in 1891 Helmholtz turned seventy, the *German Society for Mechanics and Optics* presented him with an improved version of this instrument, also built by Schmidt & Haensch (1893).

In short, the research group around Helmholtz had what was probably a small number of these expensive instruments at its disposal, and one of those was made accessible to Ebbinghaus. And that instrument or a similar one had also been used by Frau Franklin in her research with König in Berlin.

2.4. *The Priority Claim*

Ebbinghaus in his 1893 paper reports the discovery of an optical phenomenon of capital importance for the theory of colour perception which he had made with the trustworthy Helmholtz spectral colour mixer: the binocular after-image, and he asserts that it is impossible to detect this phenomenon with the relatively crude colour disc (Ebbinghaus, 1893, p. 168ff.).

This statement is puzzling as Franklin had already reported the same visual phenomenon at the London congress the year before (Franklin, 1892) where Ebbinghaus was among the audience: It is even more puzzling if one bears in mind that Franklin had stated that she had made her discovery with the colour disc.

A woman who had managed to break into the male domains of science and university in those days would undoubtedly not have been lacking in courage, and so it was hardly surprising that Franklin, after publishing the full version of her London paper (Franklin, 1893a, 1893b, 1893d, 1893f, 1894a), protested immediately when the Ebbinghaus paper appeared. In leading scientific journals like *Science* (1893c), *Nature* (1893e), and *Mind* (1894b) she pointed out in no uncertain terms that she had made the discovery first. And it seems that at least the Anglophone world accepted her protestation and research results, even though they had been achieved with a substandard instrument. The Wundt disciple James R. Cattell (1894), for example, published a review of Ebbinghaus's paper and added the unpleasant remark that the latter's discovery had been preceded by Franklin's.

Ebbinghaus thus found himself in a singularly miserable position. The first time he presented himself in an international forum he was eclipsed, and a year later he was actually humiliated and disgraced by a woman of particular fervour and energy who had used a research instrument of rather limited usefulness. And this damnable woman would continue denigrating him in speeches and papers.

This is certainly an interesting episode in the history of the role of women in science in general and in psychology in particular. My interest here, however, lies in documenting the circumstances to support my claim that Ebbinghaus must have acquired an ardent and specific motive to further focus on research on colour perception. There was no other way to vindicate himself one day.

2.5. Ebbinghaus's Personal Spectral Colour Mixer

The opportunity for Ebbinghaus to have the means to pursue his independent research on colour with his own first-grade instrument materialised in 1894 when he accepted the Breslau University chair of philosophy with specialisation in psychology. Since this would deprive him of a plenitude of research possibilities in Berlin with the Helmholtz circle, he tried all the harder to persuade Breslau University to supply him with one of these extraordinarily expensive spectral colour mixers. And in 1896, the Breslau University Chronicle reports: "the manufacturing of a colour mixer for spectral light has been ordered"⁶ (Baumker et al., 1896, p. 33f).

It was certainly a big step for the discipline of psychology for a university to be persuaded to buy such an expensive instrument for a typically underfunded chair of philosophy, even if that chair was also responsible for psychology. This step might lead us to imagine tremendous progress in colour research by psychologists. But nothing happened.

Ebbinghaus gave a detailed description of the spectral colour mixer in general in his *Grundzüge* (1897, p. 210), but produced not a single publication in which he mentioned research done with his own spectral colour mixer. He did not even publish any further papers on colour. From Ebbinghaus's publications alone, there is no indication that he even had such an advanced spectral colour mixer.

Nonetheless, there is evidence that the instrument actually arrived in Breslau. Ebbinghaus's Breslau colleague, the ophthalmologist Wilhelm Uthhoff, who had been in Berlin earlier and who knew König well, published two papers with notes in which he thanked Ebbinghaus for having allowed him access to that instrument (Uthhoff, 1899a, p. 135; 1899b, p. 337).

These notes may seem unremarkable, but they are actually sensational. Whereas publications in psychology abound in notes thanking medical professors for permitting access to unaffordable instruments, this is – probably – the first note of this kind where the customary order is reversed and a member of the well-endowed medical faculty thanks a colleague from the poor-house philosophical faculty.

But this was not a moment of triumph. Quite the contrary. Ebbinghaus may have possessed the precious instrument, but obviously was not able to get it working properly. Letters from Arthur König found in the Ebbinghaus estate revealed that Ebbinghaus had urgently asked for help from Berlin, and that even König who had worked with this instrument for years could not remedy the problems at a distance.

Ebbinghaus had no laboratory technician, and very likely he or the university could not afford to bring experts from the company Schmidt & Haensch in Berlin to Breslau to get the machinery running correctly for Ebbinghaus's purposes. In short, it is not sufficient to own the instrument, one also needs expensive maintenance to ensure usability.

The price of his instrument is not known – but in the 1890s Schmidt &

Haensch were offering spectral colour mixers of varying degrees of sophistication for up to 3,500 marks. In 1912, E. Zimmermann of Leipzig had models ranging from 1,000 to 8,000 marks. As a yardstick, the most expensive instrument found in German psychological laboratories in those days was the 310 mark chronoscope available from E. Zimmermann.

Evidently, a financial ceiling had been reached. No ministry or university was willing to invest more money in the nascent discipline of psychology. I do not know of any other psychological institute that could afford a spectral colour mixer. For institutes in the medical faculty, such sums were not a major problem. Johannes von Kries, for example, professor of physiology at Freiburg, had a mixer that was more sophisticated and expensive than Ebbinghaus's. In one of his letters König despairingly advised Ebbinghaus to forget about his instrument and to buy instead a decent one like the one Kries had.

Another example of the discrepancies in research possibilities between the discipline of psychology and the discipline of physiology is the following. Kries invited the psychologist Kurt Koffka who was colour-blind, to spend a semester in Freiburg. Koffka continued to be interested in colour perception. He was even asked to write two important contributions for the voluminous *Handbuch der normalen und pathologischen Physiologie* on the perception of movement (Koffka, 1931a) and on the psychology of visual perception (Koffka, 1931b), although he never had the use of a decent research instrument himself.

3. Conclusion and Desideratum

The findings are: Research in colour perception, although a genuine part of the *field* of psychology, was left out of the *discipline* of psychology, and remained in the *discipline* of physiology.

The reason was simple: The technical development of the instruments pertinent for colour research resulted in instruments so expensive and requiring such levels of maintenance that the *discipline* of psychology could not conquer this territory – even though common sense says that it belongs to the *science* of psychology.

The boundaries of the *discipline* of psychology and the boundaries of the *science* of psychology do not by any means coincide. Colour perception is only one example. There are many more.

I like to urge historians of psychology to examine and to try to explain the hitherto neglected questions regarding these discrepancies and boundaries. It seems to me that acknowledging the distinction between psychology as a *science* and psychology as a *discipline* is an indispensable premise to any clarification of these anomalies.

4. Satyrplay or Farce

At this point I would like to mention another chapter in the history of research on colour perception. While in Berlin spectral colour mixers were developed and used in state-of-the-art research, in Leipzig at the famous Psychological Institute of Wilhelm Wundt an advanced researcher was spending considerable time attempting to improve a pigmental colour mixer – with all the problems that entailed.

Karl Marbe (1869–1953) who had spent the Winter semester 1890/1891 with Ebbinghaus in Berlin (Marbe, 1936, p. 188) had already finished his doctoral degree at Bonn university when he arrived in Leipzig to perfect his knowledge of experimental psychology with Wundt. Marbe invested most of his time at Leipzig in the development of a new kind of pigmental colour disc that would allow the proportions of the colours to be changed during rotation (Marbe, 1945, p. 54). He called the result of his efforts the colour variator, precursors of which he must have seen in Berlin.

Since the advent of spectral colour mixer, a colour variator using coloured pigments was good only for didactical purposes, not for serious research. Marbe even relates that Oswald Külpe, then Wundt's assistant in Leipzig, shook his head when he saw Marbe “working again and again on the construction of the apparatus for shifting sectors” – the latter being Marbe's translation for colour variator (Marbe, 1936, p. 205).

Nevertheless, the Marbe colour variator enjoyed great success in the psychological institutes, although some psychologists clamoured for an improved version, since it emerged that Marbe's instrument was not reliable as to the actual proportions of the two colour segments. The catgut used to control the coloured papers behaved capriciously when there were changes in air humidity and temperature. The Berlin psychologist Johannes v. Allesch asked a good friend who had studied engineering and was also interested in psychology to create an improved version. This friend succeeded (Traxel, 1985), and the instrument was exhibited at the third Congress of the Society for Experimental Psychology in Frankfurt in 1908 (Rupp, 1909) which happened to be hosted by Marbe. This friend would later become famous, though not in the field of the history of psychology – he was the novelist Robert Musil. His pigmental colour variator was available for sale in the instrument market until recently.

In sum: Psychological institutes could not afford the instrument needed to do serious research in colour perception. They did, however, tinker with other instruments which were perhaps of some didactical value but of less worth scientifically. Colour perception – although undoubtedly a part of the *science* of psychology – would nevertheless disappear from the *discipline* of psychology while staying within the discipline of physiology. That is to say, around 1900, a segment of the boundary between the two disciplines was fixed – a boundary that obviously did *not* correspond to the boundary between the corresponding two sciences. This observation can only be clearly stated with the help of the distinction between science and discipline.

NOTES

- 1 The book was immediately translated into French (Helmholtz, 1867b, 1867c). Only the third, posthumous edition (Helmholtz, 1909, 1910, 1911) is available in an English translation (Helmholtz, 1924a, 1924b, 1925). This English edition has been reprinted many times and is still in print.
- 2 For a general survey of the research instruments at Ebbinghaus's disposal viz. Gundlach (1986).
- 3 See Furumoto, 1992, 1994; Furumoto, Scarborough, 1986; Scarborough, Furumoto, 1987.
- 4 "[...] an einem Farbenmischapparate des Herrn von Helmholtz, dessen Benutzung mir bei dem Mangel eigener experimenteller Hilfsmittel bereitwilligst gestattet wurde."
- 5 "[...] man ist nur bei dieser Methode an die physikalisch meist stark gemischten Pigmentfarben gebunden, und wenn man über deren Zusammensetzung nicht genauer orientiert ist, so unterliegt man leicht Täuschungen hinsichtlich des Wertes der etwa gefundenen Resultate" (1897, p. 210). This quote is from the first instalment of the first volume of his *Grundzüge* which appeared much closer to the events in question than the completed first volume which appeared five years later (Ebbinghaus, 1902).
- 6 "[...] die Herstellung eines Farbenmisch-Apparates für spectrales Licht in Auftrag gegeben worden."

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Balancing between academic psychology and applied psychology: The careers of two Finnish women psychologists, Anitra Karsten and Ester Hjelt

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1. Anitra Karsten: From academic research to applied psychology

Issues of “practical” or applied psychology had gradually emerged in Finland in the 1910s, first in connection with experimental pedagogy, differential psychology and child psychology. Applied psychology started to gain more independence in the 1920s, although it was not highly thought of in academic circles. Psychotechnical research, vocational guidance and intelligence testing at schools became important topics.

Anitra Karsten (1902–1988) and Ester Hjelt (1885–1960), as the first Finnish women psychologists, had international contacts and contributed to the advance of applied psychology. It is a curious coincidence that they both started to study psychology in Berlin in 1922, though Karsten stayed there for longer and was at first more involved in academic psychology than Hjelt. In the same year, 1922, Eino Kaila, the professor of theoretical philosophy and the pioneer of Finnish academic psychology, set up a psychological laboratory in Turku (where Karsten was born and where she went to school and where Hjelt later worked at the university), while the State Railways Psychotechnical Laboratory was opened in Helsinki with Ester Hjelt as its first superintendent.

At the time of Karsten’s studies in Berlin (11 November 1922–21 August 1924) Berlin was the most important place for Gestalt psychology. Karsten was one of Kurt Lewin’s earliest female graduate students. Others included Gita Birenbaum, Tamara Dembo, Eugenia Hanfmann, Maria Ovsiankina, Bluma Zeigarnik. Karsten (1990, p. 18) described the excitement Lewin’s projects and his mundane style of leadership aroused. In an interview with Mitchell G. Ash (Frankfurt am Main, 22 February 1978; quoted in Ash, 1992, p. 210), Karsten reported that working with Lewin was “one long discussion.” Lewin’s students took part in the “social construction” of research that was often planned in the café, especially in the Schwedensche Café opposite the Berlin Psychological Institute, in the continuously changing “conversation” group.

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Thorne and Henley (2005, p. 408) have suggested that Lewin's research programme especially interested women students because his subject matter covered the more social everyday-life elements of cognition and perception, children and the wide domain of applied psychology. Everyday activity became a new area for psychological research. Although the main research programme in Berlin was based on the principles of Gestalt psychology and Gestalt theory, Lewin moved away from strictly perceptual psychological areas to include personality, motivation, memory, and social processes such as group dynamics and leadership. He was also committed to applying psychology to the problems of society, to the extent that Karsten (1963a) later called Lewin one of the pioneers of political psychology.

Karsten came back to Finland in the autumn of 1924 and tried for a while to study sociology and economics at Åbo Akademi University (the Swedish university in Turku), but her enthusiasm for psychology prevailed and she completed her doctoral studies at the University of Giessen (15 May–10 November 1926). She was awarded a doctoral degree (including psychology, economics and the history of literature) later, on 24 February 1928. Lewin published her doctoral dissertation *Psychische Sättigung* (Karsten, 1928; see also Karsten, 1976) in the most influential Gestalt psychology publication *Psychologische Forschung*.

Lewin and Karsten introduced the concept of "psychic satiation." It concerned the loss of incentive and a growing aversion while repeating the performance of an action. The concept of "psychic satiation" has featured in practical applications in work, organisational and educational psychology, and attempts have been made recently to reconceptualise it as the loss of intrinsic motivation during the repeated performance of an action (Schulz-Hardt et al., 2001; see also Metz-Göckel, 2002).

2. Anitra Karsten's career in applied psychology

Between the First and Second World Wars, the professional survival of the "fittest" meant that the majority of women psychologists had to move from academia into the diverse and newly developing fields of applied psychology (William Stern [1903, p. 28] first coined in German "Psychotechnik," in English "psychotechnics"). As Lawson et al. (2007, p. 342) state, this shifting of females into applied psychology "may have contributed significantly to the loss of many women's contributions from the historical record of psychology."

Karsten never married or had children. Gender-related challenges as well as structural and socio-cultural barriers did arise, but she did not complain about the inequitable division of responsibility between men and women, or about being discriminated against as a woman. Later on, she was ready to pinpoint different intergenerational prejudices. For a large part of her life, she also had the status of a "foreigner," representing a small-language area (she

belonged to a Swedish-language minority in Finland). She learnt German well, but was never very comfortable with English.

Karsten's work is here briefly contextualized in certain historical settings that moulded her thinking, instead of tracing the detailed development of her particular ideas. Karsten started her career in applied psychology in 1927–1928 in Ústí nad Labem (Aussig an der Elbe) in Czechoslovakia, as the manager of the advertising psychological laboratory of the central advertising department of the Georg Schicht Company. Her job was to focus on the psychological aspects of advertising, consumer research and product development. The company was at that time one of the largest manufacturers of detergents, soaps, cosmetics (mainly perfumes), candles and margarine.

The American spirit of functionalism was filtered to Germany through experiments, such as those carried out by Hans Paul Roloff (1927) on the “unconscious process” in relation to posters. Karsten knew of Roloff's research, but stressed the need for practical trials to test the effects of advertisements on different audiences (see, e.g., Karsten, 1929, 1930a, 1930b, 1936a, 1936b, 1936c). She maintained that it was not enough to have a good idea. The artistic and technical formatting of the idea had to be linked to a detailed and well-organised advertising and marketing campaign that took into account the expectations and opinions of the consumers. Karsten (1933) was also among the first to write on children as the “purchasers” of products.

Karsten moved from Aussig an der Elbe to Berlin at the beginning of 1929 and stayed there until 30 November 1939. During that time, she worked as an advertising psychologist. In addition to her practical work, she also assisted Lewin in planning films on children's behavior mostly in their natural environments (see van Elteren, 1992, p. 603) and did some minor experimental work. However, Karsten admitted that in order to earn her living she had had to stick almost entirely to the practical side (Karsten's letter to Rolf Lagerborg, 30 July 1933).

She wrote several short articles in German on advertising and marketing psychology. The psychological element in them is quite elusive, and the articles do not offer much contribution in terms of academic merit. Most of the journals in which she published in the 1930s were on the margins of psychology, and were meant for those interested in the practice of advertising and marketing.

Karsten herself did not write straightforward National Socialist propaganda, but advertising and marketing research was explicitly exploited for ideological purposes from the very beginning of the Hitler regime. Advertising served as an important instrument in building up and guarding the *Third Reich* (Westphal, 1989). Karsten survived even in National Socialist Germany. Although women were regularly not given leading positions, she was nevertheless appointed as the (first) Docent of advertising psychology in the 1936-founded *Höhere Reichswerbefachschule* in Berlin (1936–1939), and she was given the position of the head of the research institute for the science of advertising (*Forschungsinstitut für Werbewissenschaft*) in Berlin (1936–30

November 1939). When the *Höhere Reichswerbefachschule* was solemnly opened on 15 June 1936 in Berlin by Wittenbergplatz, Karsten was reported to have been the only woman present among the official male crowd (Tiander, 1936).

Both the *Höhere Reichswerbefachschule* and the *Forschungsinstitut für Werbewissenschaft* were directly led by National Socialist members and were used for planning propaganda. Undoubtedly, the National Socialist Party, which had total control over such appointments, approved Karsten's promotion: she was not Jewish, and her Nordic background suited the image of a "pure Aryan race." Karsten saw the Psychological Institute in Berlin empty of Jewish scientists and finally close in 1935.

Karsten's determined and stern personality undoubtedly helped her to maintain her post and to make the most of what was left. While visiting Helsinki in 1937, she gave an interview where she presented herself in a humble way. She had managed to establish herself in Germany and had carried out both experimental and practical work, but she characterised the role of an advertising psychologist "only as a go-between who gives the opinion of the public to the businessman and the opinion of the businessman to the public" (Fougstedt, 1937, p. 615). Almost the only personal confession in the interview is the following passage (ibid, p. 644):

No, I have practically no private life whatsoever. Life in Germany is so exciting; everything is so much at the beginning that one has to devote all one's powers to one's work tasks. However, as recreation I do find time for music and sport, especially gymnastics. In addition, I would very much appreciate my having more time. [...] No, I have no tulips, no cats, and no parakeets. [...] I am in the happy situation of having had my life arranged like in a wonderful dream. (Translated from the Swedish original.)

In a couple of years, this situation changed drastically when the dreams turned into nightmares and Karsten had to go back to serve her native country during the Winter War between Finland and Russia.

Karsten stayed in Germany until 30 November 1939. During the war, she first joined the Finnish Legation in Stockholm (1939-1940), and then she worked for both the Finlandia Press Service (1940-1944) and the State Information Institute (1941-1943). She traveled every now and then to Germany, and edited the journal *Nordlicht* (1940-1944) and two books, thus fostering relations between Finland and Germany. After the war, she was arrested by the Finnish police and was interrogated for ten days, but she was not accused of any collaboration with the National Socialist regime and was released.

During the war, Karsten had already taken up her main teaching position at the Swedish School of Economics in Helsinki (1942-1960), lecturing on marketing economics and advertising psychology. She also worked in Swedish institutes, teaching German, psychology, social psychology and pedagogy. She obtained her Master of Economics (1948) at the Swedish School of

Economics in Helsinki, and was appointed Docent of psychology (1951–1960) there. She made several study and congress trips to the United States, West Germany, England and France in 1949–1951.

After visiting the United States and especially the University of Michigan (Research Center for Group Dynamics, which was combined with the Institute for Social Research) in 1949–1950, Karsten was more informed about the new sample-survey methods in marketing and opinion research. She spoke in favor of “human relations,” leadership and group-psychological research in developing psychology within the area of economics (see, e.g., Karsten, 1952a, 1952b, 1958b).

Again, her work was mainly practice-oriented, and most of her publications were small-scale articles with some scattered references to research on marketing and advertising. At the end of the 1940s, Karsten became interested in social psychology, especially in research themes linked to prejudice and aging. She began to develop “social gerontology,” and defined old age as a social category based on prejudiced images of aging. In this connection, she was a Board member of *Societas Gerontologica Fennica* (1948–1959), and Editor-in-Chief of the journal *Geron* (1952–1959).

Karsten saw her research on aging as, on the one hand, part of developmental psychology concerning the study of the human life span, and, on the other hand, as part of social psychology concerning the study of prejudice, discrimination, conflict and communication within a group and between groups. She liked to make use of Lewinian field theory and topology, and stressed the need to connect research on aging to economics, politics (political psychology) and adult education.

She also wrote on children and youngsters, on their psychic satiation (Karsten, 1948), their groupwork and individual work (Karsten, 1949a), their social misadjustment (see Karsten, 1949b) and their behavior as consumers (Karsten, 1957). Karsten was among the first to pursue an interest in “filmological” studies, for example on the relation of children to the cinema (Karsten, 1955, 1958a).

Karsten moved permanently to West Germany in 1960, first as a visiting docent in Erlangen, and after that in Marburg. She was actively involved in several research projects (for example, on the prejudices of the youngsters [Karsten, 1965a, 1966a; see also Karsten, 1978], on the situation of old people in the German countryside [Karsten, 1968], on old people’s well-being [Karsten, 1969] and on old people as consumers [Karsten, 1971]); she was also involved in academic tuition in Germany, Switzerland and Sweden. Some years later, in 1964, she settled in Frankfurt am Main (in Johann Wolfgang Goethe University), where she received a *honoris causa* doctorate in 1975.

In West Germany, she actually shifted the focus of her research into the area of prejudice and national stereotypes (ethnocentrism–liberal attitudes) and social (in-group–out-group) relations. She was acquainted with a large body of literature and gave a review of social research in that area (Karsten, 1953, 1965a, see also Karsten, 1966b).

Karsten stressed the reciprocity of social perspectives and relations, and the emotional meaning of social perception. The difficulties in changing rationally comprehended wrong knowledge were not to be underrated: "When we encounter opposition towards a change in social ideas, we mostly have to do with an emotional opposition" (Karsten, 1951, p. 52; see also a review of motivation and affect psychology by Karsten, 1963b).

She held firmly that old people could quite easily participate in all kinds of activities. For her, retirement was never anything absolute. She was well aware of the methods and problems of old age research (for a review, see Karsten, 1965b). However, she was promoting interdisciplinary (not primarily medical) gerontology as late as 1979, and then formed a research group on social gerontology. As the initiator, she saw the founding of the "Third Age University" in Frankfurt am Main on 9 June 1982, before her 80th birthday.

Karsten defined the "Third Age University" as a forum for the intergenerational encounter, thus developing the ideas of Martin Buber ("dialogue") and Kurt Lewin ("Quasselstrippe," "chatter line"). She commented in a letter to Anna-Liisa Sysiharju (23 September 1985) that the Frankfurt model of the "Third Age University" is a "new form of didactics that is unique in the whole world." The Frankfurt "Uni 3" depended, from its beginning, on teamwork, co-expertise and the constant co-construction of knowledge.

In the 1920s and 1930s, Karsten had been a lonely "fighter" in the male-dominated field of psychology. She was an example of how a single female fighter can find a way into academic psychology and to an independent career in applied psychology (see Sprung, Sprung, 1996, p. 207; see also Jahnke, 2006). However, Karsten had also already adopted models of teamwork in Lewin's student group, and in the field of advertising psychology. At the University of Michigan in 1949-1950, she had learned more about group dynamics. Later, while working in Frankfurt am Main, she was clearly drawn to group work, both in research and in pedagogy (see Karsten, 1977).

Anitra Karsten's special contribution was to encourage the elderly to actively share their experiences, to learn continuously new things, and to participate as equals in the dialogue with students and teachers from younger generations. Karsten continued her teaching almost until the end of her days. Even in old age she was described by her colleagues in Germany as a stubborn, persistent woman who valued both traditions and innovations. She described herself thus: "For me, relevance was and is always in the foreground. The quest for a position, for power and money is something that I was spared from" (Karsten, 1979, p. 91).

3. Ester Hjelt and "practical psychology"

Ester Hjelt, who was born in 1885 in Vaasa, Finland, to a Swedish-language family (her father, Hjalmar Hjelt, was a professor of botany) was, with Anitra Karsten, a pioneer of applied psychology in Finland. Hjelt, who already had

her M.A. (practical philosophy, Romanic literature, art and general history) from the University of Helsinki (1910) and her postgraduate certificate of education (1918), studied psychotechnics first under Walther Moede in Berlin (May-June 1922 and July 1923) and then under William Stern in Hamburg (June-July 1923 and May-July 1924). As mentioned before, Karsten had started her psychology studies in Berlin (first period 11 November 1922-21 August 1924). However, there is no documentation about possible contact between them, neither then nor later.

Berlin in the 1920s has been seen as a conglomerate of several “metropolitan laboratories”: “clinics, hospitals, department stores, factories, cinemas, and housing developments” (Vasudevan, 2006, p. 806). “Psychotechnik” with its psychological testing and scientification of everyday life was tied to these laboratories where a new epistemic order and regulatory circuitry upgraded “the ordinary and mundane components of social life” (Knorr-Cetina, 1992, p. 119; see also Knorr-Cetina, 1999). “Psychotechnik” has been given twofold significance. “First, it contributed an additional set of experimental procedures for analysing and accommodating the *affective* character of urban industrial modernity. Second, it was enrolled in a larger project of policing and recuperating a national *Gemeinschaft*, a pressing predicament and one in which the field of psychiatry was deeply implicated.” (Vasudevan, 2006, p. 805.)

Fritz Giese, whose work Hjelt knew well, defined psychotechnics “as the application of psychological principles to the *entirety* of practical life including social reform, public health, economic activity, law, education, art, and science” (Giese, 1921, page 115, emphasis added). Hjelt (1938a, p. 175) quoted Giese: “Human treatment and societal problems will most probably succeed the original domains of vocational guidance and vocational choice. Psychotechnics will thus become of an essential value for shaping the whole culture – an inexhaustible source, as long as human labor poses questions to be answered.” This social-therapeutic and work-utopian touch is also revealed in various contexts of psychotechnics. Vasudevan has aptly recognized the many connections that psychotechnics had in the very core of Berlin:

A number of its experimental methods were, after all, developed within the highly ordered confines of wartime psychiatry and were only later enrolled in the conditioning of the Weimar metropolis. The net result is that psychotechnical ordering ultimately manifested itself in a series of overlapping spatial formations which increasingly tied the psychotechnical laboratory to the field-scapes of a modernising metropolis. Giese was himself explicit about this connection between everyday life and the psychological sciences, noting that “observations into everyday life need to be taken up by the [psychotechnical] experts themselves. This will include attending sports centres and other public meeting places (coffee houses, cinemas, etc), observing people in railways, cars, streetcars and hotels, people in conversation or reading the newspaper, on holidays or on their official daily routines: all these are in fact sources of psychological study” (Giese, Cordemann, 1931, p. 7; quoted by Vasudevan, 2006, p. 807).

In Finland, Aksel Rafael Rosenqvist had in 1920 published a large work on vocational guidance and experimental work psychology (especially based on Münsterberg's ideas). Rosenqvist (1920, p. 158) wrote: "Psychotechnical research thus promotes every individual's real joy of life and at the same time the right management of finances and welfare of whole society; it is thus tailor-made for abolishing social discontent that has spread to large strata."

Ester Hjelt worked from the 1910s to the 1930s mostly as a teacher of Swedish language at various private and ordinary schools (in the 1910s and the beginning of the 1920s) and in agricultural schools (1928–1934). Her licentiate thesis on school testing was completed in 1930 (Hjelt, 1930). However, she also advanced to the position of superintendent (1922–1927) of the State Railways Psychotechnical Laboratory which was founded in Helsinki in 1922 (and was the first in the Nordic countries), based on the German model.

Bernhard Wuolle, the General Director of the State Railways, who had earlier based his views Taylorism, had already in 1920 initiated the plan for founding the Laboratory, and two higher railway officials were then sent to Germany to study the results achieved there. Walther Moede visited Finland (Helsinki) in February 1921 and gave "several well-attended public lectures" both at the university and for the railway personnel (Report on the Establishment of the State Railways Psychotechnical Laboratory in Helsingfors, p. 2).

Moede's (see, e.g., 1921) model was first adopted by the State Railways Psychotechnical Laboratory but it was later changed to include more ideas of William Stern. Hjelt (1938a, p. 138) has pointed out that this change in the psychotechnical model led to an increased emphasis on taking account of the concrete way of working, while in the earlier phase of the laboratory it had been the apparatus which were the "first and foremost factor." (On the history of the institutionalization of railways psychology, see Gundlach, 2009; see also Couvé, 1925.)

The laboratory was established primarily for the examination and selection of applicants for apprenticeship in the railway workshops. The methods of testing of the different senses and of coordination (manual dexterity and grip) were the main issue. The other laboratory equipment consisted of the Hipp chronoscope, an instrument for measuring reaction to sound, Poppelreuter's instrument for gauging a worker's speed, and instruments for testing the speed and power of attention.

The first psychotechnical tests of the laboratory were carried out between 16 November 1922 and 10 January 1923. The laboratory was run by Hjelt, assisted by Dr. A. R. Rosenqvist and engineer E. E. Söderman. It was first subordinate to the Mechanical Engineering Department and later reorganized under the Administrative Department. Later it was led by engineer T. Öhman (1927–1937, the laboratory being officially closed between October 1, 1931–March 15, 1935).

Hjelt was also one of the founders (in 1932) and the secretary of the Finnish Psychotechnical Club, which was a small-scale forum for those interested in psychotechnical issues. By May 1939, there were only 27 members,

who mostly worked in the fields of medicine, engineering and pedagogy. Many of these members, however, were influential, as professors and directors. For the members, Hjelt also edited a small mimeographed journal *Psyteka* (1934–1940), which followed, with the help of short translations and abstracts, the international developments in the field of psychotechnics. The Finnish Psychotechnical Club organised further minor activities in the 1950s.

In one of the issues of *Psyteka*, Hjelt (1938b, p. 3), announcing William Stern's death, published some fragments of letters she had written commenting on her stay in Hamburg in 1923 as a visiting elderly guest taking part in Stern's exercises (Stern was both professor of Psychology and director of the Psychological Institute at the University of Hamburg in the years 1916–1933): "I come from Stern's 'Vollsitzung'. It was the best one that I have had during the whole time. Short summaries and the possibility to ask questions, and Prof. Stern as a leader, all the time raising, showing new problems. [...] One becomes again so full of burning zeal when one hears him speak and when one sees the inspired and inspiring look." She (*ibid.*) remembered her visits with advanced students to Stern's home where "his faithful life-companion and co-worker Mrs Clara Stern also took part in the discussion." Those evenings were for Hjelt like being part of a "platonic academy" where happiness meant the "feeling of inner growth."

Her own feelings became markedly pessimistic after her parents died. She reported to Edward Westermarck, her former teacher of practical philosophy, about her longing to go after her deceased mother: "[L]ife has no value for me, after my parents and my home have vanished. Nevertheless, I was condemned to stay here unfit for work and without a mission" (letter to Edward Westermarck, 13 August 1928). The mission was, however, soon revitalized, and she went on, guided by professor Rolf Lagerborg, with her licentiate thesis, which was completed in 1930. Hjelt was able to immerse herself in her work quite intensively, as testified by her letter to Rolf Lagerborg (8 January 1944): "When the first bombs were dropped on Helsinki in 1939 I was sitting and working on a much earlier launched study on intelligence testing."

Hjelt had started a "freelance" career as a "practical psychologist" in 1934. "Practical psychology" was for Hjelt (1938a, p. 9), as for Münsterberg, synonymous with "psychotechnics." She did not make any distinction between "practical" and "applied psychology" either. Hjelt's main areas of interest were linked to applied psychology, psychotechnical and psychoogical testing, industrial safety, vocational guidance and education, and child welfare.

She tried to expand the field by conducting special psychotechnical testing in various organizations (1934–1939 and again in 1947–1953; on the situation of practical psychology in Finland in the 1940, see Fieandt, 1949). For Hjelt, psychotechnical testing was justified by more than mere economic considerations: "Is it not worth," she asked, "improving work quality, even when one cannot exactly count the economic gain? Is it not worth making the best possible out of any human life? Yes, sooner or later, it is worth using psychotechnical testing" (Hjelt, 1935b, p. 657).

She published short articles on these subjects (see, e.g., Hjelt, 1928, 1931, 1934, 1935a, 1935b, 1936) and the first Swedish introductory book on practical psychology (Hjelt, 1938a). Being extremely knowledgeable of the history of international psychotechnics, she made study trips to several European psychotechnical and psychological institutes (Germany: 1922–1926; the Nordic countries: 1920s–1940s; Prague and Budapest: 1934; London: 1936–1937). She took part in the international congresses of applied psychology in Prague (1934) and in Bern (1949; see Hjelt 1949/1998) while she also visited Prof. Vidoni's institute in Genoa (1949). Of particular importance was her becoming acquainted with vocational guidance and child welfare activities. Her active stance for vocational guidance led her to make a pioneering proposal for arranging vocational guidance (1935) and vocational education (1939) in Finland.

Her academic career as a lecturer was restricted to the years 1948–1953 in Finland. When appointed to the docentship of applied psychology in 1947, Hjelt wrote in her letter to the Chancellor of the Åbo Akademi University (letter to Otto Hjalmar Granfelt, 6 November 1947) that when younger she had had fantasies, nourished by her father's academic background, about becoming a professor of Latin and Greek, but the "hard reality of life soon swept away the fantasies."

She had not yet had time to start her regular work when it fell to her to take care of the two orphaned children of her dead brother. This step-motherhood continued almost until the Second World War, "which has made most of us 20 years older." With her fantasies in the "secret safe of the heart" and in the position of "my father's unmarried daughter," she nevertheless felt, when starting her academic teaching at the Åbo Academy, that she would get "nourishment for the soul" and that there was "still a task to be performed in life," thanks to the Åbo Akademi University and its young students (letter to Otto Hjalmar Granfelt, 6 November 1947). Actually, at that time only few of Hjelt's students really concentrated on specialising in applied psychology, but she was glad even about them. Åbo Akademi University awarded her her PhD degree in 1948.

Hjelt popularized psychology and was in favor of its applications to wider society. She stressed the importance of scientific quality and expertise in both academic and "practical"/"applied" psychology. She demanded high standards for the profession of psychologist, on a par with those for the medical doctors. She published almost entirely in Swedish, only a couple of articles in Finnish (Hjelt, 1931, 1935a, 1936) and two short reports in German (Hjelt, 1928, 1949/1998). Besides her contributions to psychology, she took part in the women's movement and wrote a biography (1945) of one of its Finnish pioneers, Maikki Friberg.

Hjelt (1938a, p. 174) expressed ideas about the expansion of psychological knowledge and expertise in treating societal problems and shaping the whole culture: "A day is dawning when everybody will have access to psychological help that in the past was either not available, or was left to other institutions (church, poor relief, charity)."

4. Concluding remarks

Some features of Karsten's and Hjelt's careers can be summarized as follows. Both pursued academic studies and received their doctoral degrees (Karsten in 1928; Hjelt in 1948). They had to balance between academic psychology and applied psychology (which was less esteemed in academic circles). Both rose to leading positions in the field of applied psychology – Karsten in advertising psychology, Hjelt in psychotechnics/work psychology. Both had to work long periods outside of academia. Karsten had more contact with universities, Hjelt held university posts for only six years. Even in their university posts they lectured only on the applications of psychology.

Their “strategy for survival” and for independence was to operate as single, unmarried women without their own children (though Hjelt was a stepmother to her brother's children), and when possible to focus on co-operation and team work. Their dedication to their scientific pursuits and practical applications was unfailing. In their own ways, they made their mark, in spite of all the difficulties of being marginalized during their careers.

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The epistemological legacy of ancient Greek philosophy. Its relevance to qualitative research

*Gordana Jovanović**

1. Introduction

A need to know and the capacity to know have been among the defining attributes of human beings since the earliest times. Knowledge is a premise for many other activities but, at the same time, many other activities play a role in making and shaping knowledge. There are different places where knowledge can be generated and a number of ways in which knowledge can be acquired.

Life histories of individuals consist of different types of knowledge. We know facts and we know other people, we know places, we know how to swim or sing. There is a special type of knowledge (knowing-that) which refers to propositions: We know that our species belongs to the class of mammals; We know that the French Revolution happened in 1789. Though propositional knowledge is not restricted to science, science is (mostly) concerned with knowledge of propositions.

With the rise of the modern epoch, science has become the privileged centre of knowledge production and the unique source of the normative criteria of knowledge evaluation. Science has been given the role of drawing a demarcation line between valid (i.e. scientific) knowledge and other forms of experience in everyday life, such as religion or art, which have been deprived of the status of proper knowledge. This process has brought about what is described as the 'scientification' of life. In this way, science has begun to function as a kind of ideology too (see, for example, Habermas, 1968/1974).

The question of knowledge is by definition the core question of science and, for this very reason, it deserves special scientific attention. Other, transscientific roles of scientific knowledge can only provide additional reasons to put knowledge on the investigative agenda. Thus, the question of knowledge develops in the direction of self-reflection: how to know about

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knowing itself. But even if this self-reflective aspect is inherent in knowledge of any kind, there is a long and influential tradition of conceptualizations of knowledge which have ignored it.

Particularly as far as the social and human sciences are concerned, the question of knowledge becomes even more complex. Human individuals and social groups – as the subject-matter of the human and social sciences – produce, use and relate themselves to knowledge, beliefs, values, etc. Thus, knowledge itself is part of the subject-matter of the human and social sciences, and this constitutes an additional role of knowledge in these sciences. Needless to say, they – like other sciences – function as knowing agents. The role of knowing agent is one which the humanities share with the natural sciences. But the fact that knowledge and knowing appear at both poles of the epistemological situation – as an object as well as a subject – is a defining attribute of human and social sciences. In spite of this, there is a long and influential tradition which has ignored the difference and insisted instead on the concept of a unified method of science or ‘unity of science’, regardless of the specific nature of the subject-matter under investigation.

The unified science model insists on a methodological unification. In the history of the human and social sciences, this unification has been accomplished through (among other things) the adoption of a quantitative approach which has been promoted as an exclusive or prevailing approach throughout the greater part of the history of these sciences.

With the ‘methodological revolution’ brought about by the expansion of the qualitative approach in the last decades of the 20th century, the dominant view of the status and function of scientific knowledge in general, and particularly in the human and social sciences, has been questioned. Moreover, it has been argued for a broadening of the scope of research, for a different approach to the subject-matter, to subjects and to the researcher alike, to the research process and its goals. As a consequence, many changes have been effected: a shift away from the primacy of the method, even ‘methodolatry’ as described by Danziger (1990), to the recognition of the primacy of the object; away from the nature-centered conception of the object, to the definition of the object of the social sciences as an already interpreted life-world; away from the exclusion or at least neglect of the subjective dimension of meaning, to the acceptance of meaning as a basic category of the social sciences; away from the privileging of laboratory and controlled situations, to a return to the natural, real setting as a site for research; away from the exclusion or at least neglect of the context to the awareness that context is a constituent aspect of the phenomena under study, of the subjects and even of the researchers themselves; away from goals defined in the cognitive mode of explanation and prediction, to a frame of understanding and interpretation. Recognizing the special constitution of the ‘social’ object has led away from the cognitive interest in control, to – in the social sciences – an interest in participatory research and the alteration of conditions of life in view of a possible emancipation of the object; away from the conception of the informant as an

object of research, to the recognition of his/her role as active participants; away from methodological uniformity, to methodological pluralism and a demand for a triangulation of methods, materials, perspectives and observers. There has been a shift away from a preference for large samples, represented by a small number of variables, to small samples, and even individual cases, represented in all their structural complexity and temporal mutability; away from quantitative and towards qualitative representations of phenomena. In the social sciences, research-ethical principles derived from instrumental calculation have been replaced by ethical principles based on respect toward the informant as a participant in the research; rhetorical minimization and neutralization of the researcher's role have given way to the demand for constant, and the fullest possible, self-reflection. The absolutist epistemology derived from the correspondence theory of truth has come under pressure from the linguistic-relativistic epistemology of social constructionism; and normatively posited pure knowledge has given way to a differentiated analysis of the knowledge practice and knowledge-power relationship; and perhaps we can discern a certain move away from static ontology to developmental ontology; away from the model of identity in the present, to one geared to possible developments and changes in the object itself.

In view of the wide-ranging aspects of the qualitative methodological revolution pointed out here, it is clear that the question of the epistemological foundations of qualitative research transcends the realm of epistemology in a traditional sense. This much is implied in the self-understanding of qualitative research itself as an alternative research paradigm to the traditional unified model of scientific investigation. But this does not mean that qualitative research should or could leave epistemology behind. Rather it points to the direct relevance and great importance of examining the epistemological foundations of the social sciences and the qualitative research paradigm. Such analyses can contribute to a deeper, self-reflective understanding of qualitative research. At the same time, challenges brought about by qualitative research have implications for epistemology as such. Consequently, it is reasonable to expect changes in epistemological theorizing too.

The reasons for approaching the proposed epistemological analysis from a historical perspective are given in the history of the qualitative approach itself. This is a discontinuous and heterogeneous history, intertwined also with the history of epistemology in general, where there have been profound changes in conceptualizations of knowledge-related issues over time. The very fact of the existence of differences in the concepts of knowledge over time should be a starting point for further analyses of the conditions under which a specific understanding of knowledge was developed. As these conditions include not only theoretical (logical, conceptual) issues, but also socio-cultural context at large, historical epistemology is by the same token socio-cultural epistemology, i.e. social epistemology in a profound sense – beyond the scope of science policy programs and beyond its status as complementary to individualistic epistemologies, – as presumed in the summary of programs

of social epistemology given by Martin Kusch (2002). That the program of social epistemology as advocated by me is historically oriented, means that it must go beyond “innovations of analytic social epistemology” that deal, for example, with issues of testimony, consensus formation, division of cognitive labour, etc. (Fuller, 2004, p. 24).

Using the distinction “descriptive-revisionary” adopted by Fuller, the model of socio-cultural epistemology advanced here could be understood as a kind of revisionary social epistemology on the grounds that “the revisionist aims to open the possibility space by showing how things could be other than they are” (ibid.).

The historical analysis of epistemological issues is guided by an interest in searching for alternatives to dominant methodological imperatives. A more specific question is whether the legacy of epistemology contains ideas and insights that are in accordance with the tenets of the qualitative research approach. I assume that the Greek origins of this analysis need no additional justification. And maybe the proposed analysis could stimulate a search for new interpretive potentials in the reception of ancient Greek thought.

Finally, I expect that a reconstruction of the epistemological foundations of qualitative research can contribute to its self-reflexion and consequently to its self-empowerment. Further implications concern the understanding of knowledge culture and its relation to other socio-cultural forms which constitute the human historical world.

2. Epistemology in history

Epistemology owes more than just its name (*episteme*, *logos*) to Greek thought. It was in this Greek tradition that a sharp distinction between knowledge and mere beliefs was elaborated as a way of defining knowledge. And it was in this tradition that knowledge became essentially linked to virtue.

Both issues, together with many other epistemological problems, were topics in Plato’s philosophy. In a study devoted to *Plato’s Epistemology and Related Logical Problems*, Gwynneth Matthews (1972) selected the following epistemological problems in Plato’s philosophy:

1. What is the difference between knowledge and belief? Should the distinction be drawn in terms of the objects or the effects of each, or their relative stability, security and comprehensiveness, or in terms of their being different abilities, the one but not the other involving the ability to give an account or a definition?
2. Are knowledge and belief incompatible, or is true belief a necessary although not a sufficient condition of knowledge?
3. Is knowledge knowledge by acquaintance, or is the object of knowledge necessarily complex?

4. If knowledge is concerned with what is the case, can belief be said to be concerned with what is not the case, without its being implied that it is not concerned with anything at all?
5. How do we arrive at knowledge as distinct from belief? Does it require instruction as opposed to persuasion, and systematic method as opposed to observation? (p. 14)

Taking into account that Plato's dialogues do not offer a system of firm, unequivocal, final assertions and proofs but are rather aimed at provoking thoughts in others, it is no wonder that Plato's answers to these questions are often along different or even opposing lines, even within the same dialogue. For example, in the *Meno*, which belongs to the early group of Plato's dialogues (about 386–385. B.C.), there are two approaches to beliefs. According to the first, belief is located between complete knowledge and ignorance. The second approach attempted to define criteria for distinguishing knowledge and true belief (95a–100b) which was also discussed further in the *Phaedo* and *Republic*.

In *Theaetetus*, Plato's major work on epistemology, three theses are discussed. The first thesis, that knowledge is perception, is disproved since the knowing mind considers universals in things: "the mind itself seems to me to consider what is common to everything" (185e, Matthews, 1972, p. 178). The second thesis, that knowledge is true belief, concludes with the statement that true belief is not a sufficient condition of knowledge. "True belief accompanied by an account is knowledge, but unexplicated belief is not" (201d, p. 199). The third and last thesis claims that knowledge is true belief accompanied by logos. After discussing the logos as an expression of thoughts in speech, as the enumeration of parts and the statement of a mark (Matthews, 1972, p. 138), Plato's Socrates concluded at the end of the dialogue *Theaetetus* that it is "surely absolutely silly, when we are looking for knowledge, to say that it is correct belief together with knowledge, whether of difference or of anything else. So, Theaetetus, knowledge is neither perception, nor true belief, nor an account in addition to true belief" (210a–b, p. 211). This leaves us, as the dialogue is usually interpreted, with the idea that even if the accompanying logos or account is not itself knowledge, it adds a necessary condition which makes the three conditions (belief, truth and logos) sufficient, taken together.

Notwithstanding a certain open-endedness in Platonic dialogues, an approach can be discerned where Plato's answers to the questions about knowledge are closely related to his theory of forms. In the *Meno* and the later *Phaedo*, and most elaborated in the *Republic*, theory of recollection is used to explain the difference between the true and necessary knowledge of unchanging forms and changeable beliefs about changing things. Thus, the objects of knowledge are of a different kind when compared with the objects of belief, and the difference in objects requires difference in approach.

Then belief and knowledge will be concerned with different objects, corresponding just to the particular power of each [...]. As a different power is concerned with a different object, and belief and knowledge are both powers, but different powers, as we maintain, then it would be inconsistent to say that what can be known and what can be believed are identical (*Republic*, 477b, 478b, in Matthews, 1972, pp. 91, 92).

In the *Timaeus*, further differences between knowledge and belief are put forward (the production of knowledge by instruction as opposed to persuasion in producing and shaking beliefs, the ability to give or not give a true account).

Although Plato himself related knowledge to recollection of forms, giving priority to ontology over epistemology, the insight that knowledge is essentially defined by its object can be saved even without the Platonic theory of forms which is implicated in the theory of recollection. To formulate it in a different code, the thesis would claim that the type of object has a decisive role in defining knowledge. This model can be described as object-driven or object-led knowledge. In Plato's dualistic hierarchical ontological view, this means that only high quality of objects (in Plato these are forms) provides a guarantee for true knowledge. According to Plato, it is not possible to have high quality knowledge of an object belonging to a lower order. This, we could say, was Plato's ontologized epistemology.

There is another very important aspect of Plato's ontologized epistemology from which his moral doctrine also derives. Moral resources are laid down in thinking as a means to achieve self-mastery. As pointed out in Charles Taylor's (2000) interpretation of Plato's ethic of reason:

the good life for us is to be ruled by reason not just as the vision of correct order in our souls but also and more fundamentally as the vision of the good order of the whole [...] our becoming rational ought not most perspicuously to be described as something that takes place in us, but rather better as our connecting up to the larger order in which we are placed (pp. 122-123).

Again, it is possible to conceive of this larger order without a reference to Platonic forms. But it is important to save the large horizon as a condition of thinking and knowledge that have to serve as moral sources. This part of the ancient epistemological legacy is congruent with the tenets of the qualitative research approach, especially with its holistic approach and its demand for contextualization.

The history of philosophy, going as far back as Plato's student Aristotle, has offered different conceptions, starting with different ontologies. Evidently, it is possible to define ontology in different ways - ontological distinctions are epistemological achievements. For the purpose of examining the epistemological foundations of qualitative research, the distinction between natural and social kinds is of special importance. Inspired by Platonic insights, but formulating them

in non-Platonic terms, I will suggest the thesis that as natural and social kinds are different objects, the knowledge of different objects is necessarily different. In what sense and in which ways the knowledge of social kinds is different from knowledge of natural kinds should be the subject-matter of further analysis.

Contrary to Plato's strong commitments to dualism, i.e. "two-level vision of reality," represented by pairs of unequal opposites one/many, same/different, invisible/visible, unchanging/changing, divine/human, soul/body, intellect/senses, truth/appearance, knowledge/belief (Press, 1999, p. 44) Aristotle prefers thinking in terms of unity, rather than division. Even when using dual conceptual tools (matter – form, potentiality – actuality) Aristotle argues in favor of a mutual interdependence which builds unity. He gives the ontological credit of substance to individual things. As a consequence, Aristotle develops a pluralistic account of reality, but despite the multiplicity, "there is a sort of unity of being" (Bodéus, 1999, p. 54).

Within this plurality, there is also a profound unity of all living beings achieved through the soul as the universal vital principle of living things. "By identifying the soul with the formal principle (or actuality) and the organized body (or potentially living being) with the material principle, he avoided at once all forms of dualism, which separate the soul from the body, and all forms of monism, which reduce the soul to a corporeal entity" (ibid.).

Inspired very much by a biological model of growth through a series of stages toward a completion of a goal or purpose (*telos*) Aristotle believed in the irreducibility of the living. The general warning or claim against reductionism is, of course, very important even beyond Aristotle's philosophy. A second very important argument of Aristotle's refers to the teleological structure of things and human actions alike, "if it is a fact that nature does nothing in vain. For all provisions of nature are means to an end" (Aristotle, *On the Soul*, 434a, pp. 29–30).

With the modern disenchantment with this world view (*Entzauberung der Welt*), nature has become deprived of purpose. And due to the way modern natural science has served as a model for scientific research generally, purposes have been unwelcome in investigations of human affairs as well. This has of course serious implications for human and social sciences, but it might even affect the social world itself. Though Aristotle's very expansive, all-encompassing concept of purpose cannot be legitimized in view of the accounts of modern physics, it would be wise to follow Aristotle's anti-reductionist perspective and prevent the reduction of human purposeful actions to purposeless natural things or events.

Aristotle has demonstrated his anti-reductionist attitude in the realm of epistemology by allowing for different knowledges (*epistemai*), instead of the one knowledge (*episteme*) in Plato's teaching. It is evident that such a differentiated epistemology presupposes a belief that the world is knowable – and Aristotle was convinced that the world was knowable. His task therefore was to develop tools that would make it possible to know the world. He assumed also that there is a natural human desire for knowledge and that

knowledge belongs to “the beautiful and valuable things.” It is with this statement that the first book *On the Soul* begins (402 a-1, p. 9).

Aristotle intended to construct a comprehensive system of knowledge, divided into three types of science – theoretical, practical, and productive. Criteria used to distinguish different types of science belong to both poles – the object and the subject – in the epistemological situation. The content of some of these criteria reveals Aristotle as Plato’s pupil – in spite of the many anti-Platonic views in his philosophy as a whole. Thus, according to the criterion of the quality of objects (superiority, excellence), Aristotle argues in his book on the soul:

We regard all knowledge as beautiful and valuable, but one kind more than another, either in virtue of its accuracy, or because it relates to higher and more wonderful things. On both these counts it is reasonable to regard the inquiry concerning the soul as of the first importance. Moreover this investigation seems likely to make a substantial contribution to the whole body of truth, and particularly to the study of nature (402a 1-10, p. 9)

A second criterion Aristotle uses is also derived from the Platonic list: things that can change require a different type of science compared to sciences of unchangeable things.

There are two rational faculties, one whereby we contemplate those things those first principles are invariable, and one whereby we contemplate those things which admit of variation: since, on the assumption that knowledge is based on a likeness or affinity of some sort between subject and object, the parts of the soul adapted to the cognition of objects that are of different kinds must themselves differ in kind. These two rational faculties may be designated the scientific faculty and the calculative faculty respectively: since calculation is the same as deliberation, and deliberation is never exercised about things that are invariable, so that the calculative faculty is a separate part of the rational half of the soul (Aristotle, *The Nicomachean Ethics*, Book Six, 1139a11-1139b2, pp. 145-146).

With the differentiation of faculties, Aristotle follows the same patterns as with the soul: they are different, but united. The same applies to ethic:

although Aristotle distinguishes the knowledge of the eternal order from our awareness of the right order of life, they both remain essential to the good life [...]. The complete good of human life as rational doesn’t simply consist in ethical excellence; it also includes the excellences of science. And the fulfilment of these requires a grasp of the cosmic order. Attending to both orders is thus constitutive of the human good (Taylor, 2000, p. 125).

There is more of Platonic inspiration in Aristotle's examination of the soul and its powers. "His analysis of sensation, in which the sensible form of an object acts on the passive psychic sense organ, is analogous to his view of cognition, in which the 'thinkable form' of the object, somehow contained in the sensible form, acts on the passive intellect to bring about cognition" (Press, 1999, p. 73). These statements speak again for an object-driven theory of knowledge.

Concluding this part of the analysis, it could be said that the epistemological reading of Aristotle advanced here deviates from the usual interpretation of his relevance as a methodologists (e.g. Robinson, 1989). It also differs from some other readings aimed at finding features of Aristotle's system which are relevant today: for example Charles Tolman's (1994), when, in a very thoughtful essay review devoted to the problem "What is Living and What is Dead in Aristotle's Psychology," he talks about "the really living value of Aristotle's philosophical – now naturalist – psychology for today's psychologists" (p. 434). To be sure, the living value of Aristotle's philosophy goes beyond the opposition naturalism – transcendentalism as discussed by Tolman.

To summarize the epistemological legacy of the ancient Greek philosophy, it can be said that epistemological questions were among the first questions the Greeks posed. This fact demonstrates in itself the high degree of reflexivity of Greek thought. Other contributions reside in the ontological bent of their approach to epistemology. Although this could be seen at first glance as a way to devalue epistemology, a more thorough-going examination can show that valuable epistemological insights are entailed even in an object-driven epistemology. Its insights can be used independently of the particular ontology with which they were originally associated.

For the purpose of laying down the epistemological foundations of qualitative research these insights can be formulated in the following way. To know is not to possess a thing, but to establish a relation between a cognizing agent and the object to be known. As knowing has a dual structure, it is clear that the process and its outcomes are determined and shaped by both participants. The share of each participant can be and has been described in different ways. In both Plato's and Aristotle's explanations of knowledge, there are strong statements which favor the share of the object in the process of knowing. The greater share of the object consists in its role in determining the possibility and the type, or rank of knowledge. The kinds of attribute ascribed to object play a decisive role in distinguishing different types and levels of knowledge. Of course, this leads necessarily to the question of attribution itself. The ontological approach to attribution has a long tradition which originated in Greek philosophy. But the Greeks also established a perspectivist approach: attributes are not immanent to the substance, but are rather constituted through the perspective of the perceiving or knowing subject.

An important argument in favor of a general perspectivist approach is offered in Aristotle's definition of movement, which ultimately requires the

postulation of a first unmoved mover. It follows, as stated in *De motu animalium*: “We must however, grasp this not only generally and in theory, but also in the particular cases and in objects of sense perception [...]. For it is clear in perceptible objects, too, that it is impossible for there to be movement if nothing is at rest” (Aristotle, 698a 10–15, p. 24).

Aristotle applied the same principle to the explanation of the motion of animals, but “it has implications extending beyond animals to the motion and course of the universe” (Aristotle, 698b 10, p. 26). On logical grounds it was necessary for Aristotle to postulate an unmoved mover, but beyond that, “his general metaphysical and scientific system [...] ascribes functions or purposes to all substances” (Watt, 1996, p. 19). Thus, purpose was a general, “unmoved” perspective from which particular things and acts were considered.

This Aristotelian teleological framework was adopted in the medieval period, most importantly by Thomas Aquinas, in order to provide a rational underpinning to Christian theological teaching. But beyond the theological framework, a teleological perspective is constitutive for human activity and therefore an indispensable feature of the objects of human and social sciences.

3. Knowledge in society

The socio-political context in which Greek philosophy flourished was such that the transition from Plato to Aristotle occurred within a social transformation from the Golden Age of Athens towards an open society “under threat, if not in retreat” (Fuller, 2004, p. 25). Plato was born in the year of Pericle’s death or the year following (427 B.C.), and his life encompassed the period leading up to when Macedonian hegemony was accepted. His early dialogues, notably *Protagoras*, still recall the glorious fifth century B.C. Under the conditions of the dissolution of the previous order, and aware of dangers connected with that, Plato offered “means of counterreformation,” in the opinion of E. R. Dodds (1951/2005: 145), in stabilizing the societal pattern.

(T)he verbal recklessness of the sophists, perhaps including Socrates himself, had been largely held responsible for the political volatility that made Athens vulnerable to foreign conquest [...]. Instead Aristotle fixates on the speech’s formal properties, detached from the heat of debate. Aside from privileging the logic and grammar in rhetorical criticism, Aristotle’s approach was prudent for times when speakers might not get a second chance to correct a verbal misfire (Fuller, 2004, pp. 25–26).

Steve Fuller’s reference to the socio-political embeddedness of contemporary philosophy can be helpful in understanding the claims of social epistemology generally and its way of raising questions about the relationship of knowledge to society. This relation does not mean that knowledge mirrors reality,

but even less that knowledge mirrors a priori and pure intellectual structures. To understand this relation is a hermeneutic task of grasping meanings – and the relation may not be linear at all, but comprise all kinds of shifts and turns, adaptations, expressions or reactions. “For a recent example, consider that the massive appeal of Rawls (1972), which elevated the guiding intuition behind the welfare state to the transcendental basis for the good society, coincided with the rise of neoliberalism, a time when welfare intuitions became less compelling in the political arena (Fuller, 2002a)” (Fuller, 2004, p. 26).

Let us return to the Greek legacy, which deserves further attention in this context. Eric Robertson Dodds (1893–1979) departed from the tradition of rationalistic interpretation of Greek thought with his famous *The Greeks and the Irrational* (1951) by introducing the topos of the irrational into his analysis of Greek philosophy. However, there is a kind of hermeneutic circle between previous rationalism and its decline, and the rise of irrationalism. In Dodds’ view, Socrates and the Sophists “like the Victorians [...] had a vision of progress – of the perpetual ongoing march of the civilization – and for the same reason: they had themselves in their formative years experienced progress, swift and indisputable, holding, as it seemed, the promise that human life could be lifted by the exercise of reason to always higher levels of material and intellectual achievements” (Dodds, 1947/1973, p. 109).

In Dodds’ view, the disappointment of expectations raised with regard to the formative role of reason played an important role in the generation of irrationalism in Greek philosophy as far back as Plato. Dodds was convinced that misery and mysticism are linked. What is even more striking is that Dodds described his own epochal hermeneutic horizon in 1914 (i.e. World War I) in terms of collective epidemic madness, a “reversion to primitive ways of feelings and thinking.” It is not difficult to recognize in this diagnosis Freud’s thought in his essays published under the title *Zeitgemäßes über Krieg und Tod* [Thoughts for the Times on War and Death] (1915). But Dodds, psychologically and psychoanalytically well informed, was not ready to psychologize the collective madness of war. As he writes in a letter of February 7th 1919 to Gilbert Murray, the war was in itself “a symptom of some radical unsoundness in the structure of European society” (cited in Hankey, 2007).

Dodds stuck to this strategy of combining ancient and contemporary hermeneutic horizons. It would even be correct to say that his interpretations of antiquity were made not least for the sake of understanding contemporary civilization, as he himself stated as the editor of Plato’s *Gorgias*. Wayne Hankey commented on Dodds’ assessment of this dialogue:

Dodds found the dialogue to be an attack “on the whole way of life of a society which measures its ‘power’ by the number of ships in its harbours and of dollars in its treasury, its ‘well-being’ by the standard of living of its citizens. Such a society was Periclean Athens.” He concludes by remarking that: “We also know from experience that as the belief in traditional moral standards is progressively undermined,

the foundations of democracy become increasingly insecure; we are in a position to verify (as our parents were not) Plato's analysis of the way in which the corruption of democracy opens the road to tyranny" (Hankey, 2007, p. 6).

As the experience of war madness, then as ever, demonstrated, fascination with irrationalism leads to destruction and self-destruction. Dodds had no doubts that this was the disease of which Greek culture too died. Beyond the inclination to mysticism, occultism, and astral determinism, Dodds recognized an "age of anxiety," "fear of freedom" of living in an "open society." In these linguistic constructions we can again easily recognize Dodds' interlocutors, notably Erich Fromm and Karl Popper, to whom Dodds explicitly refers. Leaving aside the many opposing views held by those two authors, it is more important to stress here Dodds' strategy of decentration, as a logical presupposition of contextualization. In this case, decentering does not mean ignoring the irrational, but it does not mean, either, allowing it to occupy the centre.

What was for Dodds an age of anxiety, of destructive power of irrational feelings, was afterwards subjected to a more affirmative interpretation. As stated by Wayne Hankey (2007): "Eric Dodds' negative evaluation of late antiquity and of post-Plotinian Neoplatonism had undergone re-evaluation over the last forty years, especially at the hands of French scholars, philosophers, and theologians" (p. 5). We have here again a fusion of horizons as a French re-evaluation of Neoplatonism contributed to shaping postmodern philosophical orientation. In Hankey's judgment, for Jean Trouillard (1907-1984) "the problem with our civilization lies not where Dodds put it, but where Heidegger located it, i.e. in the all-encompassing reason and will which reduced both God and being to objects" (Hankey, 2007, p. 19).

The French re-evaluation of late antiquity's age of anxiety and the decline of rationalism culminated in an interpretive affirmation of self-consciousness and responsibility. The crisis proved to be fruitful for the development of self-consciousness. In his assessment of Pierre Hadot's reinterpretation, Hankey stated: "As against the judgment that there was a degeneration of antique culture arising from the fear of responsibility, Hadot is pointing to the fact that this is the great period of the deepening of subjectivity, the development of individual consciousness, of the sense of moral responsibility" (Hankey, 2007, p. 22).

From these examples of socio-cultural contextualizations of Greek philosophy, valuable insights can be gained for the positioning of qualitative research in general, and particularly for understanding social roots and social meaning of the shift to qualitative research as such.

4. Conclusion

Contextualization is an important source of knowledge generation and meaning creation – this much could be demonstrated on different levels: Greek epistemological views are embedded in ontology and related to ethics and politics, Greek philosophy in general is related to broader cultural and social patterns, and the reception of Greek thought is formed by changing hermeneutic horizons and interests of recipients.

With regard to the task posed here – namely to demonstrate the relevance of the ancient Greek epistemological legacy to the qualitative research paradigm – it is already possible to draw some conclusions. The ancient Greek views on knowledge encompass valuable insights on which qualitative research can rely. Reading ancient Greek epistemology with eyes sensitive to qualitative approach or having in mind the tenets of qualitative paradigm can bring to light certain overlooked or marginalized aspects or connotations of Greek philosophy and thus enrich the inherited picture of it. Cognitive benefits can also be gained from the socio-cultural contextualizations of shifts and changes in Greek thought. Here the qualitative research paradigm can find a means for its own contextualization, for raising and answering the question of how the shift towards qualitative research came about, what kind of forces motivated or caused this shift and what functions it served. In this way, by decentering from manifest and self-declared goals of qualitative research, it should also be possible to critically examine – in addition to self-declared liberation effects – its possible stabilizing, or manipulative usage. Qualitative ‘turns’ in sciences may, beyond their scientific relevance, also be symptoms of societal changes. But such symptoms require a deep hermeneutical approach for their meaning to be truly understood. And this is exactly the subject-matter of qualitative research.

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Aesthetics and Psychology in Terms of Baumgarten

*Hroar Klempe**

1. Introduction

Today it cannot be denied that there are obvious connections between aesthetics and psychology. Rudolf Arnheim in particular contributed much by merging these fields during the twentieth century (Arnheim, 1986). Also David Berlyne also deserves a mention as another, but quite different contributor (Berlyne, 1974). In addition there is extensive research activity within the different fields of art, as in music psychology, literature psychology and art psychology, aiming at finding evidence for the impact of art upon the human mind. Positive psychology is another field in which aesthetics appears to play an important role (Csickszentmihályi, 1990). Allessch (1987, 2006) has pointed out the historic lines of this connection between aesthetics and psychology in terms of what he calls “psychological aesthetics.” According to Allessch, the connection is deeply rooted in history in the sense that it might be traced back to the very beginning of modern aesthetics, which was founded by Alexander Baumgarten (1714–1762).

This corresponds very much to what is happening in present day aesthetics as well. Whereas aesthetics for several decades has been defined in terms of “theory of art,” this has very much been challenged, especially by research into popular culture (Welsch, 1996; Allessch, 2006). Television, radio, film and popular music all have aesthetical implications, but it is hard to apply theories of serialism and cubism to popular music and television, respectively. According to Allessch (2006), modern media have made the sensational aspects more important in the process of transmitting information (p. 142). This is also true when it comes to other areas which actualize aesthetical considerations. There is a tendency to focus on sensational aspects in general. This has moved the goalposts in the current debate on aesthetics. In short, Gernot Böhme has replaced Pierre Bourdieu (Refsum, 2008). Reconstructions of the sensational aspects of the aesthetics of Baumgarten have become more of interest than socio-functional and symbolic explanations of the content of art.

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In this paper, I will focus on the close relation between psychology and modern aesthetics, which was established by Baumgarten. I will start by looking at some parts of his pre-aesthetical text *Metaphysica* (1739) (Baumgarten, 1983), which forms the basis for – and was published eleven years before – the first volume of the *Aesthetica* (1750/58). In the eighteenth century, *Metaphysica* was divided into four different parts, which examined the four different issues: ontology, cosmology, psychology and natural theology, respectively. This way of understanding metaphysics was very much defined by his predecessor and teacher, Christian Wolff. Thus the aesthetics of Baumgarten is generally understood in terms of the Leibnizian/Wolffian distinction between the higher and lower capacities of acquiring knowledge, in which modern aesthetics is based on the lower capacity, namely sensation (Allesch, 2006, pp. 29ff). This is exactly what Wolff called “empirical psychology” (Wolff, 1732/1745/1998), which represents the theoretical framework for the aesthetics of Baumgarten. There was a certain terminological confusion at that time, which Immanuel Kant comments on in his *Critique of Pure Reason* (1787/1956/1971, B35). I will look at this close relation between early modern aesthetics and psychology, and ask if there are historical reasons for maintaining a clear distinction between the two. If there are not, one must say that the close relation between psychology and aesthetics goes far beyond Arnheim and Berlyne and the twentieth century.

2. Metaphysics in the eighteenth century

Metaphysics still played a dominating role in German philosophy in the eighteenth century. This is due to the famous confession of Kant, when in 1783, just two years after the publication of the first edition of the *Critique of Pure Reason*, he announced that David Hume was the one who had awoken him from his dogmatic slumbers (Kant, 1783/1958, p. A13/118). Even though critical philosophy must be regarded as a counter pole to the prevailing philosophy, Kant also gave lectures in metaphysics, precisely because metaphysics was a point of departure for his critical philosophy. In these lectures he referred to Alexander Gottlieb Baumgarten's (1714–1762) *Metaphysica* as a source (Copleston, 1964, p. 136; Schweizer, 1983, p. X). Thus one may presume that Baumgarten's *Metaphysica* from 1739 was regarded as an important textbook at that time (Cassirer, 1932/1968).

Baumgarten was not the only significant predecessor he referred to. The most influential character in German philosophy in the eighteenth century was undoubtedly Baumgarten's forerunner Christian Wolff (1679–1754). He was the one who defined metaphysics in a modern way consisting of the four components. Instead of treating these topics in one volume, he divided them into six different volumes, two of which covered psychology: *Philosophia prima, sive Ontologia* (1729), *Cosmologia generalis* (1731), *Psychologia empirica* (1732), *Psychologia rationalis* (1734), *Theologia naturalis* (1736–1737).

What may appear astonishing here is the fact that psychology, and even empirical psychology, were defined as parts of metaphysics. This was an old tradition (Kant, 1787, B876). Equally striking, however, is the evidence of how much was expected of psychology at that time. Wolff reflects this in the two volumes. In part these expectations grew out of the German era of modernity and enlightenment, of which Christian Wolff is to be regarded as the most brilliant figure, but Immanuel Kant also makes some important reflections on the subject at the very end of his *Critique of Pure Reason* (B869-879), where he focuses primarily on how to distinguish between what metaphysics originally was and what it ended up being. According to Kant, “metaphysics was declared to be the science of the first principles of human knowledge” (B871). This, of course, also represented a point of the departure for his own investigations of pure reason, “which investigates the faculty of reason in respect of all its pure a priori knowledge” (B869). The fact that psychology became such an important part of metaphysics exemplifies the dilemma. Psychology, especially the empirical, was defined as being about the faculty of acquiring knowledge through sensation (Wolff, 1745/1998). Thus empirical psychology is definitely not primarily about the first principles, and Kant concludes that it must be regarded as applied philosophy and that it must be “completely banished from the domain of metaphysics” (B876).

Another question to be posed is why empirical psychology became a part of metaphysics at all? Kant’s explanation is that when metaphysics was declared to be a science, there were no certain intentions regarding what it should include or not, only that it should be about the first principles and what knowledge these principles were able to generate. This means that metaphysics only prescribes “a certain precedence in respect of generality, which was not sufficient to distinguish between such knowledge from the empirical” (B871). Even in empirical research there are of course certain principles that govern our way of thinking, and “among empirical principles we can distinguish some that are more general, and so higher in rank than others” (B871). According to Kant there was no distinction in metaphysics between a priori and a posteriori knowledge. This is why Kant on the one hand held the opinion that metaphysics had come to an end, and on the other hand developed his critical philosophy. But this was also why psychology appeared to be such a problematic field, precisely because on the one hand it was about knowledge acquired through sensations (*psychologia empirica*), but on the other hand was about how the human mind perceived itself, which means observations of a priori knowledge (*psychologia rationalis*). Even though the empirical psychology had to be regarded as applied philosophy, very close to natural science and had to be “banished from the domain of metaphysics” (B876), Kant regarded it as so important that it still had to be a part of metaphysics until it could be properly taken care of.

3. Psychology in Baumgarten's metaphysics

Kant's reflections on metaphysics may serve as a background for the understanding of Baumgarten's metaphysics. Although Kant's philosophy appears much more familiar to us, Baumgarten must be regarded as an important forerunner because Kant refers to him so frequently. There are, however, more reasons for saying that Baumgarten had a very special position in the eighteenth century. According to Ernst Cassirer, Baumgarten was the only one of Wolff's pupils who "mastered the logical technique Wolff taught [and] Baumgarten's *Metaphysics* [therefore] long remains an admired model" (Cassirer, 1932/1968, p. 338). For Kant, Baumgarten became a favourite because he was such an "excellent analyst" (*loc. cit.*).

There are some concurrences, but – more importantly – many differences between the two. Kant is the one who breaks off with metaphysics by introducing critical philosophy. In that sense he represents a more modern perspective, which is much easier to understand and sometimes even an excuse for rejecting everything which comes under the heading of metaphysics. On the other hand, Kant's critical philosophy is almost not understandable unless metaphysics is taken into account as a background. Baumgarten is the one who depicts this background.

In his *Metaphysica* published in 1739, psychology is introduced in the third part, which must be said to be a standard at that time. In this part psychology is defined very much in accordance with the original Aristotelian meaning of the term: "Psychology is the science of the general designation of the soul" (Baumgarten, 1983, p. 3, § 501). Baumgarten explains its position as a part of metaphysics by the fact that it includes some of the fundamental sentences for other parts of metaphysics, especially the applied sciences. He makes a sharp distinction between rational and empirical psychology, defining the former as being about the soul's ideas out of which there are generated a series of rational deductions, and the latter as about knowledge generated from empirical experiences (§ 503).

This is very much in accordance with Wolff, who dedicated one volume to each of these aspects of psychology. Baumgarten starts with empirical psychology, which underlines a perspective saying that all our ideas are derived from experiences. This does not imply an absolute empirical perspective. Baumgarten is also governed by the Leibnizian argument against the British empiricists, namely that the mind itself must be regarded as a decisive exception from the theses that all our ideas have their origin in experiences. Thinking has a certain influence on our ideas, in the sense that "by thinking my soul goes through a transformation" (*Cogito, mutatur anima mea*, § 505). This implies that the soul is not a passive, but an active force.

Because of this, one may say that in a way Baumgarten anticipates some aspects of phenomenology, and especially the content of the term intention. Contrary to popular belief, Franz Brentano did not invent this term, even though it is primarily associated with him. Brentano borrowed the term from

Thomas Aquinas. In other words, intentions and even intentionality must be said to have been a part of scholastic metaphysics in the middle ages, and of course became an important aspect of rationalism in general.

Another aspect, however, which brings Baumgarten even more into line with the modern way of thinking, is his focus on the bodily perspective. This aspect is just a consequence of an active soul. If the soul is a force, it must also be a force in the world, and this force has to be located some place in the world, which is given by the body (§§ 507-509). The body has a certain place, age and position, and therefore one's ideas must be seen as a consequence of conditions which are given by the bodily position. Baumgarten concludes this by saying that "my soul is a force, which reflects the world as a position of the body" (*Anima mea est vis repraesentativa universi pro positu corporis sui*, § 513).

This position of the body is decisive when it comes to clearness of knowledge. If something is happening close to the borderline of my range of sight, I have just a weak and unclear impression of what is happening, whereas the opposite will be the case if it is happening in the centre, which will make the impressions much brighter and clearer. The point here is that it is possible to make a distinction between clear and unclear sense impressions and that they also generate different kinds of knowledge.

This was something quite important, which maybe leads the associations to René Descartes. His proofs of God's existence rely very much on clearness in our ideas of God. The role Baumgarten gives the body however, direct the associations in the opposite direction. According to him, clearness is more related to the lower and higher capacities of acquiring knowledge. To acquire knowledge in general was a capacity of the soul, and psychology, therefore was divided into a rational and an empirical psychology.

Baumgarten undoubtedly had a certain interest in empirical psychology, an interest due to the historical era in which he lived. He brought that interest one step further in the sense that he avoided the hierarchical differences between the two sorts of knowledge (Cassirer, 1932/1968). This represents Baumgarten's most important contribution, first of all because it opened up the way for a bodily-founded experience of the world, which generated knowledge of a certain value and was just experiential. In this sense Baumgarten opened up for saying that the experiential had its own value, despite the fact that it contradicted to rationality and had to be characterised as unclear, because this was exactly some of the aspects that must be said to be the core aspects of an experience of art.

4. Aesthetics of Baumgarten

There are some aspects of metaphysics which seem to have led Baumgarten to make a connection between sensation and the experience of art. This connection had earlier been considered as quite unthinkable because the experiences of art were conceptually strongly connected to beauty. Before

Baumgarten, beauty in art was primarily understood in terms of Plato, who defined it very much in rational and ethical terms. According to Plato, one must say that the beauty is strongly connected to order (Wyller, 1977; Sundberg, 2000). This is prevalent in the dialogue *Timaeus*, which underlines a corresponding coincidence between the order that rules the human mind, the body, the world and the Creator of the world (Platon, 1990). This order was primarily expressed in the rationality of simple numbers derived from the Pythagorean understanding of music. Thus beauty must be said to be a matter of rational thinking.

Despite the fact that in ancient times too art was regarded as being able to convey the most exalted situations, an idea which surfaces in some of Plato's dialogues, like *Ion*, *Symposium* and *Phaedrus*, for example, exaltation itself was just a result of and totally subordinated the beauty understood as rational order. In terms of eighteenth century metaphysics, beauty in art was inseparably connected to the higher capacities of acquiring knowledge. Thus the radical contribution of Baumgarten was to introduce a discussion of art while discussing the lower capacities of acquiring knowledge, which is the *psychologia empirica*, empirical psychology. He does not suggest a general discussion about art actually. The introduction of art is strongly connected to his deductions about the different sorts of ideas derived from outer and inner sensations.

There are reasons to underline the fact that empirical psychology also included inner perceptions. That was one of the core issues in Leibniz's monadology, which formed the basis of the philosophy of Christian Wolff. Leibniz differs between three different forms of consciousnesses. These are the naked nomads, the souls and the spirits. The point is that their forms of perceptions define the three levels of consciousness. The first one is characterised by unconscious registrations, the second by conscious perception, and the third by self-perception and reflection (Leibniz, 1966). The latter is exactly what characterises the human mind, and Leibniz introduces the term "apperception" to depict this capacity of perceiving one self, which is the capacity of making inner perceptions. A term that has followed psychology up till now, although it has gone through a lot of changes when it comes to what it refers to.

Baumgarten is not focusing on art in general. This is why he explains the faculty of producing art in his *Metaphysica*. He takes seriously into account man's tendency to fantasy over reality, as well as the fact that this is the result of a certain need. According to Baumgarten, literature illustrates this tendency in the best way because it easily illustrates the fact that storytelling has at least two meanings. One is to tell of an event which has really happened, and the other concerns an event which certainly has not happened, but is enjoyable and pleasing nonetheless. When it comes to the latter form of story, Baumgarten introduces the term mythology. Fiction can be said to be a kind of philosophical mythology (Baumgarten, 1983, p. 73), and experiencing it can be said to be a kind of mythical aesthetics (*Metaphysica*, § 592).

When it comes to the role of aesthetics in Baumgarten's *Metaphysica*, it is clearly a matter of necessity. Baumgarten is primarily discussing different sorts of knowledge acquired through sensation. The term aesthetics is introduced because it is derived from the old Greek word for sensation (*aisthesis*). Literature, on the other hand, is introduced because it is a consequence of outer and inner sensations, which are not so much rooted in reality as generated by an individual's imagination. In this sense one may say that Baumgarten forms the basis for his aesthetics in his *Metaphysica*, but the discussion undoubtedly also offers another point of departure, namely *psychologia empirica*.

In his *Aesthetica* in two volumes, published in 1750 and 1758 respectively, the aspect of psychology vanished from the glossary, so to speak. What Baumgarten does is to introduce another scientific approach, which focuses not so much on the soul and its ideas, but on the experiences of art. One may assume that Baumgarten thought this would probably solve the problems of an empirical psychology, which still later on concerned Kant. His concerns were about how to define and categorise empirical psychology philosophically. On the one hand it was about knowledge acquired through sensations, but on the other hand it was not about the objects themselves, which must be said to belong to the field of physics, but about our ideas about the objects. And this is exactly what Baumgarten's *Aesthetica* is about; namely the experiences of sensation. Art has a very special position from this point of view because it is an area in which the experience itself has its own value.

Baumgarten, however, has broader perspectives on aesthetics than just considering it to be about art. Thus in § 1 he says: "Aesthetics (theory of free arts, lower forms of acquiring knowledge, the art of thinking beauty, the art of an as if rationality) is the science of the sensational knowledge" (Baumgarten, 2007, p. 11.) The opening sentence of the *Aesthetica* is so compressed that it summarises almost entirely what aesthetics was considered to be about. First of all it should be remembered that Aesthetics is an overall science which includes a number of other fields. It also comprises certain traditions when it comes to dealing with these fields. This is what is said when it is referring to the free arts (*septem artes liberales*), which means that they were not applied sciences.

As has already been mentioned, the lower forms of acquiring knowledge constitute sensation and are the main content of empirical psychology. Aesthetics, in other words, is still regarded as almost indiscernible from empirical psychology. One may say that the difference is connected to a question about perspective in the sense that art, and especially literature, are the main focus of Baumgarten's aesthetics. But this is probably not the whole explanation. One may also assume that Baumgarten thought aesthetics should be the answer to the question articulated by Kant, namely how empirical psychology should be defined in the frame of the different aspects of knowledge that was identified through metaphysics.

Other aspects mentioned in this paragraph certainly support this suggestion. First of all through the main content of the sentence in this paragraph, namely that aesthetics is supposed to be the science of the sensational form of

acquiring knowledge in general. This can, of course, be understood in two different ways. One is that it embraces all the empirical sciences. The other is that it is a very special science just focusing on the knowledge within our mind acquired through sensation (*Aesthetica est scientia cognitionis sensitivae*). There are several arguments for saying that the first interpretation is out of the question. The most crucial is that physics, which must be said to be the most élatant field of an empirical science, is not part of aesthetics. Aesthetics therefore must be said to be about the ideas derived from sensation.

If, however, aesthetics is a kind of science, which focuses on ideas derived from sensation, it is primarily a science concerned with inner perceptions. This necessarily involves thinking, for several reasons. First of all it is impossible to focus on ideas without thinking and considering. In addition, one must say that ideas themselves are strongly connected to thinking in the sense that it is almost impossible to separate ideas and thinking from each other.

This strong connection between sensation and thinking forms the basis for most radical contribution. He does not evaluate the different forms of acquired knowledge in a hierarchical order, in the sense that the "lower" forms also must be said to have a "lower" value. This is exactly what Ernst Cassirer wants to underline by saying that: "Science is not dragged down to the region of sensibility, but the sensible is lifted to the dignity of knowledge" (Cassirer, 1932/68, p. 340). This is precisely what lies behind the union of beauty and sensation. This is Baumgarten's most radical contribution, namely that he makes a connection between the lower capacities of acquiring knowledge and the experience of beauty (*ars pulchre cogitandi*).

It is in this perspective that the more or less obscure statement of aesthetics as a kind of as-if rationality (*ars analogy rationis*) must be understood. Later on in his *Aesthetica* Baumgarten introduces the term "Aestheticologic" (*aestheticologicus*). This term refers to "the spiritual and subjective truth" (§ 427). The experience of truth in such a case depends very much on to what extent the ideas created in our minds appear as natural. The acceptance of free imagination is not attained before they form a totality, in which the parts support each other, and in that sense the totality is experienced as logical. Thus one may say that aesthetics ends up with something similar to logic. This form of logic is aestheticological, and it is first and foremost the means for transforming imaginations into likeness and acceptability.

The Aesthetics of Baumgarten, in other words, seems to define a certain scientific field which aspires to cover a clearly identified area, which had not been taken seriously until then. This is the area of the imagination. It is intimately connected to and even very similar to the question of acquiring knowledge through sensations, but aesthetics is not focusing on ideas which are primarily linked to true objects. On the contrary, it is focusing on subjective imagination that even though may have general appeal. This field is primarily about the subjectivity in our ideas, but one may say that art, and especially literature represents the arena in which this form of subjectivity takes place.

In this sense Baumgarten's contribution must be said to be very forward-looking. Benedetto Croce states that Baumgarten's main contribution is that theory of art is adapted to modernity (Croce, 1966, p. 88). He may say so because modernity is described in terms of autonomy and subjectivity. Despite the fact that Descartes formed the basis for modernity through his systematic doubts, he was not able to accept the subjectivity in our ideas. On the contrary, Descartes says, "it seems to me that I can establish as a general rule that all things which I [...] conceive very clearly and very distinctly are true" (Copleston, 1963, p. 107). It should be pointed out that Baumgarten distances himself from this assumption and instead accepts the subjectivity of both clear and unclear imaginations and ideas. This is pointing forward, not only to Kant, but also – and probably even more so – towards existentialism and phenomenology.

5. Some conclusions about the relation between aesthetics and psychology in terms of Baumgarten

The research question formulated in the introduction asked if there were reasons to make a distinction between psychology and aesthetics. Now, the conclusion appears to be quite clear; from a historical point of view not only are they related, but it is actually quite hard to separate them from each other. It has been shown that aesthetics grows directly out of empirical psychology, and aesthetics is more or less used as synonymous with empirical psychology in Baumgarten's metaphysics. In that sense one may conclude that aesthetics and psychology have common historical roots, and the relation between the two is so intimate and historically founded that it goes far beyond Arnheim and the twentieth century.

As mentioned, Kant had great concerns about placing and defining empirical psychology. These concerns were, of course, presented some years after Baumgarten, but even so it may be said that Baumgarten provided some answers to those concerns. His aesthetics is first and foremost an attempt at defining a certain scientific area which primarily focuses on ideas acquired through sensation. In that sense this is something quite different from physics and natural sciences, principally because the field aspires to include the experiential aspects of sensation. This is why art appears to be so important in aesthetics. Despite the fact that scholars after Baumgarten have defined aesthetics as almost synonymous with theory of art, it seems reasonable to assert that Baumgarten himself went even further in his attempts to define a scientific field in which ideas were acquired through sensation. It is almost impossible to distinguish this definition from a contemporary definition of psychology, and one may conclude that aesthetics and psychology were very closely related and almost inseparable.

One may conclude, therefore, that aesthetics and psychology had a common point of departure because both were supposed to be scientific fields

focusing on knowledge acquired through sensation. On the other hand, it must also be remembered that both terms belonged to a way of thinking and had their origins in metaphysics. The metaphysical way of thinking, however, was consequently deductive, which implies that one always starts from the general and ends up with the specific. Both psychology and aesthetics on the other hand are characterised by the reverse approach. In that sense one may say that this focus in the middle of the eighteenth century represented an important turn, which paved the way for modernity. Thus, there are some aspects of the two areas which are still recognisable from a modern perspective. In that sense, one may say that aesthetics and psychology have been and still are very close to each other.

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Sante De Sanctis' contribution to the budding scientific psychology

Giovanni Pietro Lombardo*

1. Intellectual biography: a brief note

Sante De Sanctis, born in Parrano in 1862, was among the most illustrious psychologists and psychiatrists internationally, and is held to be one of the founders of scientific psychology in Italy (Cimino, Lombardo, 2004).

After graduating with a degree in Medicine and Surgery, De Sanctis went on to teach psychiatry, in 1896, and psychology, within the Faculty of Philosophy, in 1901; he taught the first course in experimental methods during the 1902-1903 academic year. In 1903 he was assigned to psychological physiology on behalf of the Faculty of Medicine and, in 1905, served as Scientific Secretary for the V International Congress of Psychology, which was held in Rome and was attended by the most esteemed psychologists of the period (De Sanctis, 1905). In 1906, he was awarded the first professorship in experimental psychology at the University of Rome where he founded both an institute and a laboratory, of which he was director up until 1930. He collaborated with numerous national and international scientific journals during the course of his career (he has an estimated 300 scientific publications) and in 1907 founded the important journal, *Infanzia anormale*. In 1910 he was nominated to be president of the *Italian Society of Psychology*. In 1925 he wrote the treatise *Neuropsychiatria infantile*, which is one of his most important works and marks the birth of a new medical specialization, of which De Sanctis is held to be, as previously stated, the founder. After holding the professorship in experimental psychology for 23 years, in 1929, nearly at the end of his scientific career, De Sanctis was offered a transfer to the Clinic for Nervous and Mental Diseases, which up until then had been directed by Giovanni Mingazzini; De Sanctis accepted the change but only under the condition that his professorship in experimental psychology not be discontinued but be made available for someone else through a selection process (Lombardo, Cicciola, 2005). The selection process was carried out and, as is known, Mario Ponzio was appointed; Bonaventura and Musatti were alternates but were not

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called upon to leave their universities. Around 1930, as Director of the Clinic for Nervous and Mental Diseases, De Sanctis founded the first department of child neuro-psychiatry in Italy. He had scientific relationships with the most important psychologists in Europe and the United States at the time and was noted by Freud, Jung, Baldwin, Claparède, Binet, Janet, James, and Calkins as being a psychologist of dreams. De Sanctis' importance was recognized not only in Italy, but also abroad as demonstrated both by the translation of his works into French, English and German, and by the publication of his articles in the major national journals and in French, Swiss, American, German, Scandinavian, and English journals. As a psychologist De Sanctis was attentive to the possibilities of the application of psychological research; it is for this reason that he had working relationships in other disciplinary contexts, giving lectures in experimental psychology not only within the Faculty of Medicine, but also in the Roman School of Juridical-Criminal Applications and in the Pedagogical Seminar at Credaro; in the end he made a notable commitment to teaching, taking students to visit the educational institutions of Rome at the start of the 1900s, the nursery schools, schools, and the Case dei Bambini founded by his student Maria Montessori.

2. The "generalist" psychology of Sante De Sanctis

Along with other second generation psychologists – Binet, Külpe, Münsterberg, Stern, Claparède, Ebbinghaus – who have integrated the classical paradigm of Wundtian physiological psychology, De Sanctis shared a program for methodological and epistemological expansion of the discipline of psychology, which was applied in a uniform manner in diverse contexts. In his notable two-volume treatise, *Psicologia sperimentale* from 1929–30, it was exactly this modern concept of scientific psychology, which included both basic (see the studies on psychophysical proportionalism, thought mimicry, dreams, attention, emotions, memory, etc.) and applied dimensions such as psychopathology, the psychology of work, pedagogical psychology and criminal psychology, seen within the general framework of experimental psychology based on the integrated utilization of multiple methods: amongst qualitative methods, the introspective methods of internal observation (for example auto-introspection and provoked introspection, in accordance with the Würzburg School in which the subject is "interrogated" by the researcher or answers questionnaires) and the extrospective methods or external observation, in which one "objectively" observes the subject's spontaneous reactions and expressions. Alongside these we also find quantitative laboratory methods such as the psycho-chronometric method (for the measurement of mental processes), the psychophysical method (for determining the size of the stimulus necessary to provoke a given mental phenomenon), the psychophysiological method (which is sub-divided into the structural method and psychodynamic method) and the disintegrative method (which is sub-divided

into the anatomic-physiological method and the disintegrative-psychological method, examples of which include hypnosis and psycho-analysis). The approach taken, based on methodological integralism, was presented for the first time in our country as a “generalist” approach and SdS’s scientific psychology aroused great interest in disciplines like psycho-pathology, pedagogy, child neuropsychiatry, criminology and juridical sciences in general. Within its historical setting, this “modern” conception, despite being considered good at a qualitative level, was not always appreciated for its scientific and methodological innovativeness and was, in the best of cases, considered a step backwards of a “generalist” nature compared to the psychophysical experimentalism of the 1800s; at worst, the approach was associated with the least significant applications of psycho-techniques. Although De Sanctis was unanimously considered to be one of the five “pillars” of Italian psychology, he was nonetheless viewed as being “applied” and “clinical” and thus eccentric with regard to the norms of scientific psychology which were fundamentally based on other basic research traditions (Luccio, 1981, 1990; Marhaba, 1981). In my opinion, the placement of his scientific works in this applied area, which was considered to be secondary, along with the influence exercised by a historiography that may be called “militant,” which viewed De Sanctis exclusively as the founder of child neuropsychiatry (Bollea, 1960; Cerletti, 1962; Gozzano, 1962), explains why De Sanctis’s role as a psychologist has in general been undervalued. This equivocal labelling of De Sanctis as an “applied” psychologist may have been generated by his at times absolutely anti-philosophical attitude and continuous defence of the disciplinary autonomy of psychology, viewed as a biological science, and “indifference” in regards to nearly any philosophical position. On this basis one is not entirely justified in confusing De Sanctis with other authors who, during the first and second world war, applied psycho-techniques in various disciplinary contexts in an atheoretical manner (Lombardo, Cenci, 2004). Within a modern analysis, De Sanctis’s scientific work is in fact characterised by a certain theoretical richness and notable methodological rigour; in line with this evaluation, the international scientific community has in fact demonstrated its knowledge and appreciation of his works, to the extent that De Sanctis is the most well-known Italian psychologist internationally. My historiographical interpretation offers a view of Sante De Sanctis as a scholar who integrated his original clinical training with a growing dedication to general psychology, and innovatively transferred his scientific and professional competencies in medicine and psychiatry to the disciplinary context of psychology, within which he presented and founded the clinical differential and experimental methodology (Lombardo, Ciccioia, 2007a, 2007b; Foschi, Lombardo, 2006).

3. Psychopathology, differential psychology and the psycho-physiology of dreams

The scientific study of dreams, as an example, was probably what, more than anything else, led to the Italian psychologist being recognized at an international level, for the simple reason that he carried out research in accordance with the canons of modern scientific psychology on a theme that up until then had only been addressed by “philosophers, moralists, scholars, and doctors” (De Sanctis, 1899, p. 5). De Sanctis initiated this line of research in the 1800s with an increasing level of commitment and orderliness over the course of several decades up until his death in Rome in 1935. More specifically, we can affirm that De Sanctis developed three “psychologies of dreams”: the first, which can be dated back to the first years of the 1890s, was above all inspired by the Parisian clinical model and sought to describe differences and similarities between dreams and mental illness; a second followed shortly thereafter and was strongly connected with the first in that psychometric research was carried out through the first clinical study; the third “psychology” truly belonged to the 1900s in that the psychology and psychodynamics of dreams were integrated into one general conception of psychophysiology (Forschi, Lombardo, 2006).

De Sanctis' first scientific output was essentially a compilation of contributions from the differential psychopathology of dreams, for which the clinical-diagnostic goal was substantially to classify the production of dreams by the mentally ill in order to differentiate the psychopathological syndromes that affected them. In the 1899 monograph, *I sogni. Studi psicologici e clinici di un alienista*, which concluded a period of study conducted prior to the beginning of the second half of the nineties (De Sanctis, 1896, 1897, 1898), one notes however an already profitable integration between the clinical methods typical of De Sanctis' medical-psychiatric training and the psychometric instrumentation of a Galtonian derivation that were applied to the differential study of dreams through the use of questionnaires developed specifically for that purpose. Picking up on the limitations of these instruments in regards to the use to which they had hitherto been put, De Sanctis sought to construct differentiated questionnaires on the basis of the characteristics of the diverse groups of subjects analysed (De Sanctis, 1899) for the purpose of describing the forms and contents of the dreams in the different sub-groups (children, the elderly, men, women, neurotics, psychotics, epileptics, “imbeciles,” delinquents, and prostitutes) with respect to the reference group (normal and abnormal). The volume, extending as it does the study from the abnormal to the sane and to animals, marks the passage from the differential psychopathology of dreams, from an organic perspective of methodological integralism, which would from that point on be maintained and subsequently built upon. De Sanctis did not publish any more works specifically dedicated to the life of dreams between 1901 and 1913; the topic would be taken up later on and only with the analysis of the by then

hegemonic psychoanalytic approach to the interpretation of dreams, carried out in 1914 in two important works (*La psicoanalisi e il suo valore come metodo dell'onirologia scientifica* and *L'interpretazione dei sogni*) that critically examined, in terms of methodology, the hermeneutic procedures adopted by Freud and his students (De Sanctis, 1914a, 1914b). De Sanctis's distancing himself from psychiatric psychopathology is radical and definitive both in the 1916 work *Il sogno: struttura e dinamica*, republished in 1981 as *Storia e critica della psicologia* (De Sanctis, 1916/1981), and in the other works dealing with this theme that De Sanctis wrote subsequently, up until just before his death; as already mentioned, this incontrovertible element has not been taken up by the most influential interpretations, which have maintained the medical-psychiatric character of De Sanctis' research on dreams without recognizing the more significant psychological developments. Among the other contributions from this period – during which he produced a vast scientific output that has, up until now, been misunderstood and never analysed in its historiographical setting despite its unquestionable interest – is *I metodi onirologici* from 1920, which lays out the importance of natural experimentation in that it is connected to the manipulation and induction of dreams provoked through stimulation and interventions in the context of falling asleep. In brief, the experiments conducted demonstrate how the waking consciousness does not have the possibility of directly influencing the sleeping consciousness, which is, however, capable of processing daily stimulations autonomously and, after an indefinite latency period, may automatically create the connected oneiric representations. Among the most important contributions of this second period are *Psicologia del sogno* (1922/2006) and *Nuovi contributi alla psicofisiologia del sogno* (1933/2006) in which the research themes that De Sanctis had personally studied as well as the research of those with whom he worked were once again taken up and systematized. The book deals with works that had been recently republished (in one case it deals with the first Italian edition of a text that up until then had only been available in German); these works comprise an original synthesis of the research carried out, beginning with the first experiments on the depth of sleep conducted many years before with his colleague Neyroz (De Sanctis, Neyroz, 1902) (the experiments were included in order to connect the stages of sleep to the stability of the dreamer) and concluding with the most recent work of his colleague, the psychiatrist Antonio Mendicini (Mendicini, 1920) who, by studying respiratory rhythm with a pneumograph, had identified in the experimental subjects the presence of an altered respiratory rhythm that was considered to be empirical proof of a specific stage of sleep connected to oneiric production. In fact, the study of dreams implied the need for an adequate level of knowledge of the depth of sleep, or rather of the stages of sleep and their recognizability; the deepest sleep produced, in the brainstem, a chaotic activation that the cortex (in the words of De Sanctis, always “late” and “inexact”) “commented on,” giving space to the strangeness of dreams (or, in other words, oneiric bizarreness) (De Sanctis, 1933/2006). The psychophysiological and psycho-

dynamic model of dreams that emerges from this research is, to be very brief, the outcome of an 18th century conception of experimentation that was so advanced that it reminds one of the first experimental studies on sleep from the fifties: in fact, the earlier model utilizes diverse methodologies in an integrated manner, opening up new fields of study and areas of knowledge to scientific psychology that would be taken up once again in the same context only after the Second World War (Hobson, McCarley, 1977). Beginning with Freud, who was intent on constructing for himself the myth of being the first and only psychologist of the oneiric life, a myth that would root itself deeply in the scientific community, the perspective of the De Sanctian research on dreams was primarily placed within a medical-psychiatric framework while the equally relevant psychological and psychophysiological matrix is misunderstood.

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Life and work of a woman who pioneered Evolutionary Psychology: Nadezhda Ladygina-Kots

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1. Background

Nadezhda Ladygina-Kots is well-known in Russia and her contribution to international science is acknowledged by the fact that in 2002 Oxford University Press issued a paperback of her most widely known work *Infant Chimpanzee and Human Child: A Classic 1935 Comparative Study of Ape Emotions and Intelligence*.

Nadezhda Nikolaevna Ladygina was born on 6th May 1889 in Kuznetsk, a small town near Volga river. She was the ninth child in her family. Her mother was from a family of merchants. Her father was an official and an amateur musician.

Nadezhda graduated from a classical grammar school with honours and decided to continue her education at the Moscow Higher Education Institute for Women. She had been dreaming of becoming a psychiatrist who could restore a normal life to the mentally ill. Her interest in psychological problems was not uncommon in Russia at that time. At the beginning of the 20th century, psychology was a subject of fascination to many in Russia. Psychological problems were discussed in the magazines and newspapers. Studying Psychology was compulsory in all kinds of educational institutions (theological seminaries, colleges, military schools) and it was included in both secondary and university education. At that time Russian psychology had not yet been cut off by the Iron Curtain from world science. Russian psychologists communicated freely with their foreign colleagues and played a role in the development of European psychology. In 1879, the world's first experimental psychological laboratory was founded by Wilhelm Wundt in Germany. In 1885 a psychological laboratory was founded in Kazan in Russia by V. M. Bekhterev. A popular scientific journal, "Vestnik Znaniya," published works by leaders of the new European experimental school: Wundt's *Natural History and Psychology* (1907), W. Jerusalem's *Handbook of Psychology* (1907), J.

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Baldwin's *Psychology and Its Methods* (1908), T. Ribot's *Experimental Method in Psychology* (1911), and others including some by Russian scientists.

Studying at the Moscow Higher Education Institute for Women, Ladygina became fascinated by the lectures on zoology and practical training in Animal Anatomy. Her main interest, however, was animal behaviour. Ladygina-Kots wrote in her autobiography: "A key factor in my decision to study animal behaviour was the work *Mind and Life* by Professor V. M. Bekhterev. The work was devoted to research into protozoa, unicellular organisms. I was intrigued by the question – at what level of animal psychic development does consciousness appear? From that point on, studies of animal behaviour became my main field of interest."

2. A Productive Partnership

At the Moscow Higher Education Institute for Women, Nadya attended lectures by a young scientist, Alexander Fedorovich Kots (1880–1964), who chaired the recently formed Evolution and Darwinism Department (1907).

In 1911 Nadya married Kots. In spring 1913, the young couple went abroad. They visited the house where Charles Darwin was born, and some laboratories specialising in animal behaviour, like Krall in Germany. They also visited museums in Munich and Berlin, Dresden and Stuttgart, Leipzig and Frankfurt, Jena and Halle, Nuremberg and Cologne, Bonn and Hamburg, Antwerp and Brussels, Paris and London. The Kotses were passionate about public education and the dissemination of scientific knowledge, and were searching for a model which would enable them to promote both. Visiting leading museums, however, simply confirmed them in their belief that they would have to find their own path, their own way of bringing true scientific knowledge to the public. Kots and his wife would devote most of their lives to attempting to fulfil this aim. The result was the Darwin Museum, which the couple founded at their own expense in Moscow¹; it is still there. In 1913 the Museum was presented to the Moscow Higher Education Institute for Women, but the Kotses would continue to work there as long as they lived.

For the Kotses, a museum exhibition should ideally be both scientific and entertaining. At the beginning of the 20th century, the idea of putting works of art into museums of natural sciences was innovative. Alexander believed that a museum of evolution theory required an essentially new design – "the union of Science and Art," – as he wrote. In his museum one could see the works of talented animal painters – V.A. Vatagin, K.Kh. Flerov, A.N. Komarov, N.N. Kondakov, V.Ya. Trofimov and others – alongside natural exhibits.

Nadezhda Nikolaevna helped her husband organise the Museum and remained a keen and devoted colleague till the end of her life. For twenty years she worked as a guide in the Museum, and for 12 years she assisted her husband in the organization of public lectures on the Doctrine of Evolution,

as well as conducting special lessons for students of the Moscow Higher Education Institute for Women.

Nadezhda Nikolaevna founded an Animal Psychology Laboratory at the Darwin Museum. She set up an exhibition, "The World of Animal Instincts: Getting Food, Maternity, Nurture, Hiding from Enemies, Nesting, Tracking Down Prey, Play Behavior [...]."

The Kotses used several rooms of the Darwin Museum as living quarters. With their son Rudolf, born in 1925, they occupied three rooms downstairs – a dining room, Rudolf's room and the couple's bedroom – and two rooms upstairs – Nadezhda and her husband's studies. These rooms had a rather romantic look to them, on account of the great number of books, manuscripts, paintings, sculptures and museum exhibits. Some of these items belonged to the Museum and some were the Kotses' own property. It was hard for them to distinguish museum work from everyday family life. Household routine was minimised. No one ever saw Nadezhda Nikolaevna doing housework. She was free to think and be creative. Who cooked and cleaned for them? Somehow the banal tasks of everyday life got done amid the preparation of museum exhibits and the shifting of museum stands. These people were above the everyday routine, as some of their contemporaries pointed out.

Ladygina-Kots maintained close contact with people in the art world too. Thus a whole range of brilliant animal painters and sculptors participated in the creation of masterpieces for the Darwin Museum. Paintings were devoted to the life and work of Darwin, scientist-predecessors, contemporaries and followers of the great evolutionist. A great number of works illustrated different subjects from the evolutionary past of the Earth and its inhabitants. A splendid series of paintings reproduced episodes from classical experiments by Kohlerb and Wagner and Ladygina-Kots's own experiments with anthropoid apes and other animals.

At that time Nadezhda Ladygina-Kots was a real beauty, with an angelic face and splendid wavy hair. She dressed romantically and liked to appear in public. A woman of simplicity and grace, she was kind but distant, well-bred and with excellent manners.

Once, while making observations in the Zoo, Ladygina-Kots attracted the attention of a famous Russian poet, Vladimir Mayakovsky, who was walking there. The poet was stunned to see such a beautiful and serious woman. In Mayakovsky's poems there is a reference to a beautiful woman engrossed by the wild animals and oblivious to the poet himself.

The furniture in her private office was rather unusual, to judge from her contemporaries' descriptions of it. It was both practical and mystical, like a castle library, and romantic, the kind of thing you might find in the drawing room of an art lover or collector of rare objects. The office was full of photographs, as if its owner aspired to capture and freeze every moment of her life. There were photographs of herself, members of her family, close friends, colleagues and distinguished people she communicated with. Two lithographs in simple antique frames took central place on the wall of her

office. One of them was of Diana surrounded by animals; another depicted an angel grieving over dead birds.

In the years before the Russian Revolution of 1917, Ladygina-Kots was studying the behaviour of anthropoid apes. These were bought and kept at the Kotses' own expense. The couple bought a young chimpanzee, Iony, and kept it in their own home. Nadezhda investigated the emotional displays and cognitive abilities of the animal. Every day for three years the zoologist couple and their foster-child – the chimpanzee Iony – were together from morning to night, a relationship unprecedented in the history of science.

The results proved interesting enough to attract the world's attention and to win appreciation and recognition from Russian and foreign scientists. The material from this research would become the subject of Ladygina-Kots' graduation thesis: "A new method of investigating cognitive abilities in chimpanzees." While studying Iony's cognitive abilities, Ladygina-Kots worked out and introduced a new research technique – "Selection based upon a model" – into experimental practice. Since then this method has been used extensively by psychologists and physiologists investigating various aspects of the behaviour of animals. The main results of the work were reported at the All-Russia Congress for Natural Science and Medicine. Later a book was published. Nadezhda was invited to work in the Institute of Psychology at Moscow University in the department of experimental psychology.

3. After the Revolution

After the victory of the Bolsheviks in the Russian Revolution of 1917, the situation in Russia changed radically. The new government exercised control over all spheres of social life including science. The period of the "political history" of psychology began.

A. F. Kots and Nadezhda Ladygina-Kots first welcomed the Revolution as a lucky opportunity to enlighten people, to introduce the concepts of the progress of science and, in particular, Darwinism to the general public. Under the Kotses' management the Darwin Museum became a centre of enlightenment. Workers and Red Army soldiers visited the Museum along with scientists, students and schoolchildren. A. F. Kots recalled an occasion when a group of Red Army soldiers came to the Museum on horseback and remained on their mounts while they listened to his popular lecture on Darwinism.

When, at the beginning of the 1920s, the situation in Soviet Russia stabilised and political opposition was crushed, the Bolsheviks set about "putting things in order," which meant ensuring ideological unanimity in scientific and cultural matters. The dialectical materialism of Marx, Engels and Lenin was supposed to be the basis for this unanimity. First of all, idealism was outlawed. In August 1922 a number of psychologists holding idealistic views – S. L. Frank, L. P. Karsavin, I. A. Ilyin, N.A. Berdyaev, L. M. Lopatin, the sociologist P. Sorokin, a specialist in the sphere of the irrational, B. P. Vysheslavtsev,

and others – were exiled. The deportation of such prominent scientists was a heavy blow to Russian science.

The next phase in the dramatic imposition of a single methodology on Russian psychology was the abolition of the “empirical” school of thought, which was based on the works of Wundt, his concept of psychic life and research methods. In 1923, the Marxist K. N. Kornilov took over from G. I. Chelpanov as the head of the Psychological Institute, and the history of non-Marxian psychology in Soviet Russia thus came to an end.

At the same time many advanced scientists such as V. M. Bekhterev, L. S. Vygotsky and A. R. Luriya enthusiastically welcomed social reforms, which were introduced with the catchwords “Social Justice,” “Liberty,” “Brotherhood” and “Equality.” They sincerely believed that Russia was on the brink of social and cultural rebirth, and tried to take an active part in the “renaissance.” Thus Bekhterev, speaking at the public conference in the Institute of Human Brain in 1919, declared: “At this turning point of history we can’t just stand around and wait [...]. We have to decide whether we are with the people who have won their freedom and are now going to build their future.”

The 1920s in Russia saw a remarkable surge in creative activity in science. It was in those years that Vygotsky’s world-renowned cultural-historical theory appeared. The rise of psychology was due to the huge demand for practical work and the need for a new scientific methodology based on Marxism.²

The young Soviet government had great expectations of psychology. Two main objectives were established, both concerning ideology as well as the economic life of the country: increasing labour productivity³ and developing a new kind of human being – a product of proletarian culture.

The new Soviet regime gave unprecedented support to the development of psychology in Russia. In 1918 – just after the devastating First World War, after the period of civil war which followed the October Revolution – the Human Brain and Psychic Activity Research Institute opened in Petrograd, equipped with the best possible apparatus. At the beginning of the 1920s, psychology departments and laboratories were being opened throughout the country. In 1921 the Soviet government introduced a special regulation to support the laboratory headed by I. P. Pavlov. Applied psychology was also developing rapidly.

Enlightenment was the Kotses’ great life-work. For this the Darwin Museum and its founders attracted attention and won the support of politicians (N. K. Krupskaya, A. S. Bubnov) and recognized public figures of that time (F. N. Petrov, A. M. Gorky).

4. Fame and Recognition

In 1923, Nadezhda Nikolaevna’s first full-scale monograph – *Research on Chimpanzees’ Cognitive Abilities* – was published. Thanks to the opportunity

she had had to observe the chimpanzee Iony, who joined her family at the age of 18 months, Nadezhda Nikolaevna was the first to describe in detail the behaviour of an infant chimpanzee – its play, investigative and constructive activities. Her observations on the chimpanzee's perception and capacity for learning were of particular importance. Iony showed capacities for so-called manual thinking, the generalisation of objects and the idea of objects' resemblance to each other.

Ladygina-Kots' first book attracted the attention of leading European scientists. Claparède wrote in his book *The Archives of Psychology* (1924, Vol. 19): "This splendid volume adorned with excellent photographs recounts patient experiments with a chimpanzee, which were made by Mrs. N. Kots at the Animal Psychology Laboratory of the Darwin Museum in Moscow. We sincerely hope Mrs. Kots will soon publish the continuation of her research, which we find to be an example of patience, care and thoughtfulness in its interpretation of the facts."

Later similar investigations of the development of infant apes "adopted" by humans were carried out by V. and L. Kellog (Kellog, Kellog, 1933) and K. and K. Hayes (Hayes, Hayes, 1951). This experimental method enjoyed a revival in the 1970s, when American scientists assumed anthropoids to have early stages of the second signal system and began to teach them various intermediary languages. Many scientists (e.g. Savage-Rumbaugh, 1993) verified the similarity between chimpanzees' and human beings' cognitive abilities in the early period of development. Thus they showed that a 5-year-old chimpanzee copes with a human language analogue at the level that 2-2.5-year-old children cope with their native language. Ladygina-Kots's observations were confirmed by numerous investigations by ethologists, including observations by Goodall, Schaller and Fossey of chimpanzees and gorillas in their natural surroundings.

Nadezhda studied perception, emotions, memory and mental abilities from the viewpoint of evolution. She analysed the development of the psyche from the protozoa to the human being. On the one hand, this gave her an opportunity to demonstrate the characteristics of mental functions in apes in contrast to animals with simpler organisation of the nervous system. On the other hand, it made it possible for her to observe essential distinctions between the psyche of apes and human beings.

In 1925 Ladygina-Kots gave birth to a son. From the first hour of his life until he was 7 years old, his mother kept constant track of his mental development. The diaries document peculiar moments of the child's behaviour and mental development and contain thousands pages of vivid descriptions and photographs.

After careful analysis over many years of the diaries and of A. F. Kots' excellent photographs, a detailed comparison of the natural behavior of an infant chimpanzee and a human child of the same age (from 1 to 4 years) was carried out. The monograph *Infant Chimpanzee and Human Child: A Comparative Study of Ape Emotions and Intelligence* was translated into the main European languages and brought Ladygina-Kots international recognition. The main conclusions of this graphically illustrated work were: there is a formal

resemblance between many forms of chimpanzee and human behaviour, between their expressive patterns, certain instincts, sounds, imitations and motion games, but nevertheless there are essential differences in emotional quality and the nature of the games they play (especially human constructive games). Moreover, a 2-to-3-year-old child manifests an ability to abstract connected with the development of speech.

A frequently-recurring conclusion of Ladygina-Kots's works, and especially the aforementioned monograph, is that the main psychic processes of a human being (a child) differ qualitatively from those of a chimpanzee.

The monograph received plenty of rapturous reviews – one, for example, by Robert Yerkes – in a number of Russian and foreign periodicals. Excerpts were included in manuals of zoology and doctrines of evolution. Original photographs were reproduced by many American, German, French, Dutch, Polish and other publishers.

Her work was also acknowledged by A. Gesell, E. Claparède, H. Osborn, V. Keller, O. Keller, A. Piéron, A. Bjuler, J. Dembovsky, etc.

The period from the mid-1930s to the mid-1960s was a difficult one for Russia and for Russian psychology. Repression and political persecution of psychologists in the 1930s followed their failure to achieve the two fundamental objectives set by the Soviet government: to increase labor productivity and to develop a new type of a human being. Then the hard-ships of World War II arrived. During the war Ladygina-Kots stayed in Moscow and continued working selflessly, like many of her colleagues, helping in hospitals and proceeding with her work at the Darwin Museum. After World War II she was awarded medals “For Valiant Work” and “For the Defence of Moscow.”

The forced vulgar “materialisation” of psychology in the 1950s, when the physiology of higher nervous activity had a dramatic impact on psychological theory, was a heavy blow for Ladygina-Kots. It was not until 1959 that she published her next work *Constructive and Instrumental Activity of Anthropoid Apes*. This work had already been finished in 1949 but it took almost a decade to convince 1950s reviewers of its scientific relevance. Her colleagues reported that her debates with the reviewer-physiologists lasted for hours and she never showed any aggression or impatience.

Ladygina-Kots died in 1963. Her works paved the way for a new branch of psychology – evolutionary psychology. It should be mentioned that her approach is typical of the Russian scientific tradition and radically differs from the approach being developed in modern western science. As a Darwinist, she emphasized the evolutionary nature of human cognition and emotion, as modern western evolutionary psychologists do. However, she stressed the dialectics of human nature and highlighted not only the similarities but also fundamental differences between animals and human beings. She always insisted that *an ape is in no way human, absolutely not human, rather than not absolutely human*. This opposition makes her works particularly valuable for contemporary specialists, and Oxford's republication of her classic monograph is a fitting acknowledgement of her contribution.

NOTES

- 1 You can visit the website of the museum, where an English version is available: "www.darwin.museum.ru"
- 2 Vygotsky was a fervent Marxist. After being blamed for ideological sabotage in the 1930s, he is reputed to have said: "I don't want to live if I'm not to be considered a Marxist." His early death from tuberculosis, which he refused to treat, has been interpreted by a number of scholars as suicide.
- 3 It is an essential thesis of Marx's theory that the evolution of society is determined by labour productivity, and that capitalism will give way to socialism because under the latter system labour productivity will be higher.

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1. The historical background of vocational guidance in Italy

Vocational training institutions were established relatively late in Italy owing to the fact that compulsory education for all was introduced only in 1859, and was limited initially to children between 6 and 8 years of age. In 1923 vocational (mainly practical) training for workers was the responsibility of the Ministry of Agriculture, Industry, and Commerce, but in 1928 it was passed over to the Ministry of Education.

During the fascist period, repeated attempts were made to bridge the gap between the educational and vocational training systems by means of supplementary courses, but only at a lower level. After the Second World War, the concept of vocational guidance took on new importance. In fact, in the early 1950s psychologists began to organize specific centres for educational and vocational guidance in order to monitor such problems as non-adaptation to school life, lack of learning aptitudes, and difficulties in choosing a job or course of study. These centres began to spring up all over the country as a result of the large surplus of manpower on the Italian labour market, which was creating serious difficulties for the government of the day. The situation was complicated by the fact that the unemployed workers were either completely unqualified or only poorly qualified. For this reason in 1951 the Ministry of Labour arranged for the provision of training and qualification courses, both for the population at large and for the unemployed, with the aim of equipping the workforce for the national market as well as for emigration purposes. The vocational training of young people, however, was catered for separately, by the Apprenticeship Law (Act 19/1/55, no. 25).

At this point, the problem of the choice of occupation arose. There were two important perspectives: the workers' and apprentices' on the one hand, and the Government's (more exactly, the Minister of Labour's), on the other.

The first initiatives by the Ministry of Labour in this area were in 1951, when the task of vocational guidance was entrusted to the Ente Nazionale

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per la Prevenzione degli Infortuni (ENPI – National Institute for Accident Prevention) and to the Centro di Orientamento Professionale (COP – Vocational Guidance Centre).

The psychological sector of the ENPI (Centre for Work Psychology) grew out of the “Gabinetti Psicotecnici” (Psychotechnic Bureaux), which were established before the Second World War at the various Institutes for Industrial Medicine. However, the idea dated back to the pioneer studies conducted in the first decades of the 20th century by Mariano L. Patrizi, Pietro Petrazzani, and Agostino Gemelli, who had focused on fatigue, inattention and perceptive slowness, which were considered the main causes of accidents at work (Monacis, 2009).

The Bureaux practically ceased their activity in the immediate post-war years but they provided the model in 1951 for the first Centres for Work Psychology in Rome, Cagliari, and Milan, even if these Centres were actually run very differently from the original bureaux (Monacis, 2008), where activities were first carried out on an experimental basis and later used for those workers aspiring to training and qualification courses. Subsequently, on the basis of art. 5 of Act 19/19/55, no. 25, vocational guidance became compulsory in Italy, thus bringing the country into line with many other advanced countries, where such procedures had been in place for many years. It was the ENPI which first confronted the huge problem of vocational guidance for apprentices.

In 1952, as a result of both the general success achieved especially in the productive sectors and the perceived need for the future development of applied work psychology, it was decided to centrally coordinate psychological services, particularly on a technical and managerial level. The Coordination Office of the Centres for Work Psychology thus came into existence, under an agreement with the Sanitary Division under whose control the psychological services of ENPI were placed, as Luigi Palma, the general secretary, revealed during the 11th International Congress of Applied Psychology, held in 1953 in Paris (Palma, 1954, pp. 54-55).

In the same year, 1952, the National Commission for the Study and Definition of Job Specifications was founded in cooperation with the Ministry of Labour and Social Assistance, with Agostino Gemelli as chairman.

The Commission, which was made up of well-known Italian psychologists, aimed to establish a basis for occupational selection of workers and vocational guidance for the young, by means of the study and determination of job descriptions and job specifications.

The various Centres for Work Psychology began opening from 1952 in Naples, Turin, Trento, Genoa, Palermo, Bari, and Florence, began operating in the industrial sector, carrying out psychological selection of some categories of workers, and paying particular attention to accident-prone individuals: greater harmony between worker aptitudes and workplace design would lead to a considerable reduction in the so-called “subjective causes” of accidents, namely those ascribable to the particular psychological make-up of the worker.

Moreover, individuals were drawing greater satisfaction from their work, feeling more suited to it and improving their productive efficiency: the advantages were thus both individual and social.

Besides occupational selection for industry and vocational guidance, the Centres for Work Psychology also developed a private service for individuals wishing to obtain vocational or educational guidance. The ENPI also carried out a psychological verification service in industry, with a view, for instance, to the transfer or promotion of workers along the various lines of business management.

In short, three main tasks of the ENPI were identified by Palma (Palma, 1954, p. 54): personnel education, selection tests, and occupational profiles.

2. Vocational guidance in Puglia

All the tasks suggested by Palma were aims of the ENPI in Bari. During the 13th International Congress of Applied Psychology held in Rome in 1958, Giorgio Zunini, who had succeeded Alberto Marzi in 1956 as the director of the Institute of Psychology of the University of Bari, observed that:

With the cooperation of the Institute it has been possible to open an ENPI Psychology of Work Centre in Bari. The Institute provides training for the staff of the Centre, who are in particular concerned with the selection of people employed in the telephone services and drivers of motor vehicles, and with giving vocational guidance to apprentices. At the same time, the staff of the Centre undertook scientific research into various problems of applied psychology (Zunini, 1958, p. 3).

On the same occasion he spoke about the COP:

A Vocational Guidance Centre (COP) has been established through the efforts of the Institute. It plays an important part both in the way of individual consultation and in that of educational psychology carried out in collaboration with teachers in the various types of secondary school. In this field, research has been undertaken on the intelligence of adolescents, on their social behaviour and on the relationships between assessments made by teachers and the results of tests (*ibid.*, pp. 3-5).

In stating that that both ENPI and COP worked in cooperation with the University Institute of Psychology, Zunini was referring to the activity of Alberto Marzi, who had been their founder and the first director of the Institute.

In 1949 he had arrived in Bari from the University of Florence, where he had carried out research in the field of work psychology at the Vocational Guidance and Selection Bureau that he himself had opened in the 1930s, i.e. in

the post-First World War period, which was characterized by a large-scale transformation of the Italian industrial system and a significant expansion in production. This was a good opportunity to reach out beyond the limited borders of the Italian national market, but a wholesale re-organisation of working methods and management structures was required (Sapelli, 1997, p. 922). This duly happened after the war when the need for radical change in the national manufacturing infrastructure with respect to both technology and the nature of the relationships between workers, and between workers and managers, became imperative. The scientific "Taylorization" of work appeared to offer the most appropriate solutions. However, concerns began to emerge about the possible long-term deskilling of workers, as the majority were increasingly excluded from active involvement in the production process. Besides, war production had led to an increase in low-skilled work (through the employment of females and minors). The scientific organization of work would require new production technicians. Accordingly, the "optimal utilization of human resources through careful selection and promotion process" (Bigazzi, 1999, p. 955) became a topic of increasing interest. In other words, there were the beginnings of a realisation of the need to observe the individual characteristics of workers in order to assign them to the part of the production process in which their skills could be maximised. In order to achieve such results it was first necessary to promote and expand general technical-professional education which, combined with training on the job and similar learning mechanisms provided within the working environment, might lead to real change in the organization of production.

Starting from these assumptions, Marzi began to deal with selection and vocational guidance for the students of the Industrial Technology Institute and with educational guidance for Florentine schoolchildren. As far as vocational guidance was concerned, he made a series of aptitudinal instruments for selecting and training individuals for their job. Educational guidance was concerned with the study of schoolchildren's personality from the beginning of secondary school life and the identification of their main characteristics, such as intelligence, aptitudes, state of physical development, state of health, and their social and economic home background.

Marzi and his staff carried out similar activities in the COP of Bari, the aim being to help young people leaving school in their choice of university career, and to advise them according to their aptitudes, inclinations and interests by taking account of psychosomatic, social, and economic factors and home circumstances. It thus provided professional assistance in choice of occupation and professional development, especially for individuals facing their first career choice and having no previous work experience. By working with these young people the COP contributed to shaping their future, thus preventing them from making wrong career choices and avoiding severe social and personal consequences.

To these ends, subjects were assessed using tests such as the Bernreuter Personality Inventory, the Rossolimo and Vermeulen Profiles, the Wartegg and Zulliger Tests, etc.

The first of these, elaborated by Robert Bernreuter in the 1930s, was a pioneer multiphasic test of traits consisting in 125 items answered in a *yes, no, or* format that became the standard by which other personality tests were measured.

The first Profile was created by the Russian neurologist Grigoriy Ivanovich Rossolimo (1860-1928) in 1908. Better known for his studies on reflex (the so-called *Rossolimo's sign*), he combined his vast neurological clinical interests with child neuropsychology, a field in which he specialized. He opened a children's institute of neurology and child psychology that was the first of its kind in Russia. After attaining the university chair of neuro-pathology in 1917, he established a department for child psycho-neurology and defectology. He worked out a collection of tests (edited by Metodika in Moscow) designed to provide a psychological profile of mental capacity (attention, memory, will, speed of understanding, etc.).

The second Profile was created in 1923 by the Belgian psychiatrist Guy Vermeulen (1891-1943), who directed a service for child psychiatry in Bruxelles, attained a chair at the university, and headed the *Ligue Belge d'Hygiène Mentale*, established in 1932. The Profile assessed the level of development of intelligence through 150 tasks divided into 15 series of tests: tests 1-7 concerned "acquisitions functions," tests 8-13 "elaboration functions," and tests 14-15 "performance functions."

The fourth test, the "Zeichen-Test," was developed in 1936 (Wartegg, 1936) by the German psychotherapist Ehrig Wartegg (1897-1983) on the basis of the "Phantasie-Test," "which was not very useful in the characterological praxis," as he himself affirmed in 1939 (Wartegg, 1939, p. 2). The Phantasie-Test was invented by Friedrich Sander, a pupil of Wundt's who subsequently converted to *Ganzheitspsychologie*; but it was not as well-known as Wartegg's: Sander did not make any reference to his own test until 1967 (Sander, 1967, p. 87), although in 1954 Albert Wellek, another follower of the *Ganzheitspsychologie*, devoted a few lines to it and two pages to Wartegg's test (Wellek, 1954, pp. 39-44).

The "Zeichen-Test" was made up of a series of 8 designs composed of single elements (a point, a line, a square, etc.). The designs 1, 2, 7, and 8 represented female traits, whereas the designs 3, 4, 5, and 6 represented male traits. The subject had to complete the whole figure. In this way, Wartegg introduced active participation of the subject into the methods of assessment.

The Tafeln-Z-Test, invented in 1948 by the Swiss teacher and child psychoanalyst Hans Zulliger (1893-1965), was a quick screening device consisting of three inkblot slides analogous to Rohrschach's plates and was used in personnel selection, especially for the Armed Forces and Police.

As far as the selection tests were concerned, it should be remembered that the psychological section of the ENPI in Bari had a number of devices for testing hand coordination in young people and adults, which had been made by the French "Établissements d'Applications Psychotechniques" at Clamart, namely the *tests du traçage* and *du tourneur* for testing manual dex-

terity and finger capacity, which were invented by Jean-Maurice Lahy in the 1930s (Lahy, 1927) on the basis of the models created by Walther Moede in the 1920s.

Further tests were provided in the laboratory of the Institute of Psychology at the University of Bari, such as the *test d'attention diffusée* for aspiring tram drivers and the *test du double labyrinthe* to assess eye-hand coordination in tasks of predetermined speed. The former took account of the prevailing belief that the measurement of reaction time to visual and acoustic stimuli could be highly instrumental in accident prevention, as it would be possible to base maximum speed limits on the data obtained. The instrument, perfected by Lahy in 1910 (Lahy, 1913, 1938) and used by the French Public Transport Company, measured the diffuse attention capacity of the driver when exposed to an irregular sequence of complicated visual and auditory stimulations, with a background of street noises and movements. The responses were the complex reaction times of the feet and hands.

The Double Labyrinth Test was invented in the 1940s by Raymond Bonnardel (1901-1988), who was the director of both the Laboratoire de Psychologie Appliquée of the École Pratique des Hautes Études in Paris, and of the review *Le Travail humain*, previously edited by J.-M. Lahy and H. Laugier; Bonnardel was also the founder of the psychotechnical bureau of the Peugeot company. The Double Labyrinth assessed eye-hand coordination in task of pre-determined speed and was applied in many psychological fields, such as traffic, diagnostics of motor abilities, sports. The device consisted of a cylinder, which rotated at a constant speed. The respondent had to maintain two markings in the middle of the track by means of two levers. Each time a marking touched the side of the track, it was counted as an error. The course of the track became gradually more difficult and required constantly adjusted movements.

During the meeting held on 16 December 1953, the Faculty of Humanities of the University of Bari, "in order to remedy the deficiencies in the Italian education system," approved the "establishment of an Orthophrenic School," i.e. a type of institution for retarded and feeble-minded children first set up in 1899 by Giuseppe Ferruccio Montesano and Maria Montessori, even if the original idea belonged to Antonio Gonnelli-Cioni, who had edited the review *L'Ortofrenia* some years before (Pesci, 1999). "The Orthophrenic School of Bari," as the minutes of the meeting reveal, was "entrusted to a council made up of: Professor Alberto Marzi, full professor of psychology; Nicola Petruzzellis, full professor of philosophy; Serafino D'Antona, full professor of mental diseases [...]. Prof. Marzi is nominated as director of the school and Dr. Beatrice Leddomade as secretary. Its location is the Faculty of Humanities."

The Institute of Psychology was then furnished with other tests, such as the "Arthur Point Scale of Performance," which was created in 1925 and included 4 tests assessing the level of the development of language and reading abilities in deaf subjects from 5 to 15 years old, and "the Scale of F

Kuhlmann," who in 1912 and 1914 published two versions of Binet's scales: it was the second version that extended the test items downward to address intelligent activity at 2 months of age.

The undoubted involvement of the members of the Psychological Institute of Bari in such activities showed how research was never intended as an issue to be separated from its applications in everyday life: the idea was for psychology to be at the service of the needs of human beings.

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Charlotte Bühler's pioneering works in life-span studies

Agnès Pazziani*

1. Charlotte Bühler's pioneering works in life-span studies

In the Twenties and Thirties, the Vienna Psychological Institute under Karl and Charlotte Bühler was highly renowned. Karl's wife, Charlotte (1893–1974), although the junior partner had already made a name for herself in the Twenties through her experimental research on infants and her diary-based study of adolescents. In 1933, she published *Der menschliche Lebenslauf als psychologisches Problem*¹, a developmental model of the entire life-span, which was initially seen as novel and greeted with surprise, although Bühler saw it simply as an extension of her previous research. Bühler, never a shrinking violet, was rightly keen to assert that her work was opening up a new field for scientific psychology. True, interest in the entire life-course had ever since Cicero, and even Aristotle, always been a philosophical and literary pursuit.² Bühler's endeavour was, all the same, highly innovative as the psychological study of development was then under the influence of biology and centred almost exclusively on childhood and adolescence.

Bühler (1933, p. 2) aims to map the course of human life as a formal structure that goes beyond individual variety, so as to assess individual biography against a norm. Her goal is nomothetic, but her careful interpretation of individual biographies also has idiographic value. An illustration will help to clarify her intent: in her analysis of the great Prussian philologist and statesman, Wilhelm von Humboldt, she does not focus on historical circumstances (the Romantic period), or family origins, or friendships (with Goethe and Schiller), on his economic background (he was a noble free of financial worries), on personal abilities or inclinations. Bühler is not so much concerned with an individual in a historical and social context, but much rather with an individual whose life course exemplifies a general human experience (ibid., p. 6). In modern terminology, her approach would fall under normative age-graded life-span studies.³

Bühler sketches first a three-phase biological life curve: growth up to re-

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productive ability, a plateau, and then regressive transformation with loss of reproductive capacity until death. Her hypothesis is that the psychological curve runs parallel to the biological one: ascent up to a point, plateau, and limitation. This curve yields a five-phase model: childhood growth to age fifteen; then up to age twenty-five, development of reproductive ability; up to age forty-five, culmination and maturity; transition between age forty-five and fifty-five; physical decline after fifty-five.⁴

Biographical and statistical data on 200 people, among them a remarkable number of women, representatives of professions, artists, engineers, priests, professors, physicians, politicians were collected for the study. They came from biographies, autobiographies, letters, diaries. In addition, Bühler's co-worker Marie Lazarsfeld-Jahoda conducted interviews with fifty residents of the Vienna Old Folks' Home, who told her their humble life stories. Yet, the overall sample remained biased towards eminent personalities, and this was pointed out repeatedly. Erich Stern observed that there "was a danger of creating a psychology of geniuses rather than a psychology of the ordinary people we deal with in everyday life" (Stern, quoted in Bühring, 2007, p. 91).⁵ Interestingly, critics of Bühler do not seem to have noticed a possibly more significant weakness in her reliance on biographies. Even though all the narrated facts may be absolutely true, there is a built-in bias in biography, or autobiography. They inevitably give shape. Life is simplified as some elements are selected and others are left out. Those elements that have been included tend to be organised according to laws of logic, not as they appeared in the flux of life.⁶

Bühler sorted the biographical and statistical data into three categories: external observable events (e.g. marriage, job change); subjective inner experiences; achievements and productions (e.g. books written).⁷

External events or activities were further broken down into various domains of life (education, professional life, marriage, births, affiliations), which Bühler named 'dimensions'. In charts, the dimensions appear as straight horizontal lines with a beginning and an end at a given time in the life course. The lines are stacked on top of each other, and this simple device gives a graphic representation that recreates a curve of expansion, stability, loss with compensation by other activities, and later losses without compensations. Clearly, modern research, notably Baltes's selection-optimisation-compensation hypothesis (Baltes et al., 2006, pp. 591-595) owes something to Bühler.

Just as life can be segmented into five biological phases, there are also five phases in life events and activities that show a roughly parallel curve of expansion and contraction. In the first phase of life, from birth to age fifteen, a child lives in a narrow circle and its interests centre on school and family. In the second phase, between age sixteen to about twenty-five, as a result of romantic involvements and career choices adolescents grow out of the family circle and meet other people. Up to about age twenty-eight, the activities they undertake remain provisional and are often idealistic, i.e. without concern for their practical relevance. Career choices and personal friendships initiated during this stage are often of short duration. From about age twenty-

six to age fifty, the third phase corresponds biologically with the culmination of physical aptitudes (called 'vitality' by Bühler). It exhibits the greatest number of dimensions: career, marriage, family, children. Transition to the next phase is a time of crisis. The fourth phase starts on average at age 48.5. Along with a reduction in the number of positive dimensions, negative ones also appear (loosening of ties with former friends, illness, death of friends or family members). There had always been losses in the growth process, but earlier ones were compensated for, whereas losses in the fourth phase are not easily offset. The fourth phase is also a time when job changes or early retirement can be imposed, especially in occupations that require physical strength. After age sixty-five, the fifth phase, with universal retirement, is often marked by illness, re-evaluation of one's life, and fewer social dimensions, but an expansion of hobbies. Some older people, though, like adolescents, entertain projects, are interested in politics, or take up new studies.

More detailed observation of the phases uncovers discrepancies between the biological and life-events curves (Bühler, 1933, p. 22). A craftsman's productivity does not decrease as biology would predict: physical regression – though unquestionable – can be offset for a considerable time by experience (*ibid.*, pp. 35–38), and decline is delayed still longer in intellectual professions.

Exploring subjective experience after external events, Bühler notes an even more striking divergence between the biological and psychological curves. Her hypothesis is that on this subjective level humans are guided by a motivational factor, which she calls self-determination.⁸ Relying on the notion of intentionality, Bühler sees human life not as mere existence, with a phase of expansion followed by contraction, but as existence for or towards something⁹, with possibilities of expansion until the end of life. Five periods correspond to the five biological phases: the question of what one should live for is not foremost in the minds of children and early adolescents; in youth, provisional and approximate choices are made; in early adulthood, decisions become more definite; in later maturity set goals are achieved; old age can be retrospective or pursue the goals of the preceding phase. Self-determination, or in other words giving oneself life-goals is specifically human: "Being able to determine what one lives for is a criterion that reflects an accomplished life. [...] People tend to call this the meaning of their life" (*ibid.*, p. 68).

On the objective plane, life is ruled by the tendencies of expansion and contraction, but on the subjective plane two other forces are at work: the tendency to satisfy one's needs and the tendency to perform tasks. Giacomo Casanova, whose life Bühler studied in detail (*ibid.*, pp. 44–48), remains at the level of need-satisfaction, and so his life curve follows biology. It can be contrasted with Humboldt's life: "[...] one can only gain through living. Old age and youth are not so vastly different, and it is an erroneous belief to think of old age only in terms of loss, of diminishment. It is a different way of living, in which one should in no way envy youth" (1817, letter at age 50 to his wife, in Bühler, 1933, p. 79). Humboldt, as understood by Bühler, deals

with his own life in the same way as a sculptor carves material: "[...] life is not merely expansion followed by decline, but it involves development and psychic maturation; [...] a process that unwinds to the end of life and implies the progressive resolution of a task" (ibid., p. 80).

There is clearly a tension between the tendency to fulfil tasks and the impulse to satisfy needs. Maturity, according to Bühler in 1933, is reached when the satisfying of personal needs yields to the completing of self-assigned tasks. This transition is illustrated by the lives of Thomas Edison, Andrew Carnegie, and Leo Tolstoy. Few personalities could be more different, yet all three exhibited incredible vitality and decided at a given time in their lives to devote their energy to a task. This shift in priorities was called by Bühler 'change in dominance.'

After *external events* and *inner experiences*, the third category that Bühler studied with the help of Else Frenkel and Egon Brunswik could be called *creative output*. An elaborate system was developed in order to measure the amount and also the quality of the productions of 200 individuals over their life span. The distribution of achievements showed three distinct shapes: early peak, late peak, culmination in the middle of life (in addition to a rarer instance: even distribution through life).

Poetry, mathematics, theoretical physics, and accomplishments (such as those of athletes and young actors) that are related to 'vitality' coincide with youth. Accomplishments that depend on experience and systematic thought (Bühler's 'mentality') occur much later in life. This is illustrated by the achievements of statesmen (Bismarck, Stresemann, Cavour, Bebel), journalists (Börne, Austerlitz), philosophers (Leibnitz, Kant), and philologists (Humboldt). When vitality and mentality are equally required, as in business (Rockefeller, Fugger), exploration (Nansen, Hedin), often in the arts (Liszt, Bruckner, Verdi; Lessing, Hauptmann), and the sciences (Watt, Nobel, Edison), culmination takes place in the middle of life.

In conclusion, with production as with subjective experience, self-determination points to the possibility of a lack of correlation with the biological curve.

Allport (1942, pp. 48-49, 61-62, 166-167) praised Bühler's 1933 *Lebenslauf* as an instance of the inductive method: "Bühler's work is largely inductive. She did not start her investigation with the predetermined concept of *Bestimmung*. It was forced upon her in the course of a sensitive reading and comparison of cases" (ibid., p. 62). He is quick to admit, though, that preconceptions were present from the start: "[...] we cannot contend that the investigator's own psychological frames of reference did not come forth, as it were, to meet the data half way" (ibid., p. 167). I would give even greater weight to Bühler's preconceptions, or preliminary hypotheses. But this detracts in no way from the scientific value of her 1933 work. She gives long enough excerpts from biographies for readers to be able to challenge her interpretations and come to their own conclusions.

In 1959, long after Bühler and her family had fled the Nazis and settled

in the United States, a second version of *Der menschliche Lebenslauf als psychologisches Problem* was published by Hogrefe in Göttingen.¹⁰ Although the foreword gives it the modest goal of “addressing more clearly the theoretical questions of goal-structure” (Bühler, 1959a, p. 7), the reader soon discovers that *Lebenslauf II* is largely a new book. Such radical transformation is a matter of style, of methods, and of substance.

The first version was a very personal work whose argumentative and narrative flow was left unimpeded by scholarly references. The new version attempts encyclopaedically to survey the state of developmental psychology in typical academic writing.

The first book relied on written biographies; the second shows Bühler’s practical professional clinical activities influencing her theory as they yielded case studies which – unlike biographical studies – offered insight into the dynamics of motivational processes and development change.

The first book ignored psychoanalysis; in the second book Bühler has become conversant with Freudian theories, then dominant in the USA, and attempts to refute the homeostasis principle while seeking some kind of reconciliation with psychoanalysis. The first model covered aspects of development throughout life with special emphasis on career and work; the second model concentrates on personality dynamics. The first book took for granted a parallel between biology and psychology that the new version now questions as too simple.

The major revision to the first edition is the introduction of a new framework of four basic tendencies that are said to determine human life: need-satisfaction, self-limiting adaptation, creative expansion, and upholding of the internal order. Bühler’s new theory grew out of a confrontation with the prevalent ideas on motivation, which recognized only need-satisfaction as a basic tendency under the influence of Freud’s notion that basic striving is directed toward need-gratification and tension-reduction. Bühler’s approach meshed with those of congenial colleagues who collaborated with her to create the American Association for Humanistic Psychology in 1962 (Bühler, 1971a).

In her attempt to integrate the developmental and dynamic aspects of goal setting, Bühler introduced in her article on *Motivation and maturation* a concept of ‘creative expansion’ (Bühler, 1951). This tendency is first displayed as the individual’s own expansion through a continuous increase in the realm of activity, interaction with others, and impact on the outside world. It is later expressed through ‘productions’, be they biological offspring, achievements, or creative, artistic or technical productions. Bühler went on to say that ‘creative expansion’ was as much a primary motivation as Freudian ‘need-satisfaction’, and she developed a dualistic theory that sees in the healthy organism a periodical alternation between tension-releasing tendencies, on the one hand, and hindrance-overcoming, tension-increasing tendencies, on the other hand (Bühler, 1951, pp. 321, 331, 352; 1959b, p. 567). Note that Bühler’s earlier studies of children (Bühler, 1967/1928) support her assumption that ‘creative expansion’ is present at birth.

Ascribing a primary status to creative expansion had far-reaching consequences. It clashed with Freud's reality principle and with his notion of the superego.

For the derivation of her theory of four basic tendencies, Bühler had scrutinized the scientific landscape of her time and found some theories that could underpin the concept of primary tension-increasing tendencies. In a revision of the homeostasis principle, Rapaport, Toman, Emerson agreed that the tendency toward change has to be acknowledged as equally fundamental as maintenance. From change Bühler derived both adaptation (i.e. 'self-limiting adaptation') and productivity (i.e. 'creative expansion'), and from maintenance, both a tendency toward equilibrium (i.e. 'need-satisfaction') and a tendency toward 'upholding the internal order'.

In this way, Bühler arrived at her four basic tendencies "as necessary for the explanation of basic biological processes [...] a *balance* as well as an *integration* of these four tendencies is necessary for the healthy functioning of the organism" (1959b, p. 566). Her interest being psychology, not biology, she quickly moved to the psychological relevance of the four tendencies: they work toward the fulfilment of life. Fulfilment may then be defined in terms of the four basic tendencies having led to the achievement of the associated goals in a balanced and well-integrated manner (Bühler, 1959a, p. 71; 1959b, pp. 578-579). In striving towards an end-goal through the four tendencies, each person makes choices in order to establish his own values. Conflicts arise between the goal of comfort and the goal of accomplishment, and few people seem to be able to harmonize these goals satisfactorily (Bühler, 1959a, p. 71). Consequently, in each personality the four basic tendencies form an individually different dynamic pattern, depending on genetic make-up as well as on learning and experience (Bühler, 1959b, pp. 562-563).

All four basic tendencies operate at all times, but to individually varying degrees (ibid., p. 563). They keep interacting through the life-course, but balance varies along life-phases. With babies, need-satisfaction is foremost. After the second year, adaptation dominates. In childhood play and even more in youth pursuits, creative expansion takes over. In the fourth phase, with assessment of one's past, upholding of the internal order prevails. Old age can be a time of regression to need-satisfaction or the continuation of previous adaptive or creative tendencies (Bühler, 1959a, p. 82).

The enigma of the second *Lebenslauf* – as noted by Bürmann and Herwartz-Emden (1993, p. 214) – is that Bühler tended to glide over the radical differences with her first version. She never disowned her former theory of 'change of dominance', but in 1959 it is primarily ascribed to her co-worker's book (Frenkel, Weisskopf, 1937). Bühler may have felt that change of dominance was simply subsumed under the all-encompassing scheme of the four tendencies. She was to confront this problem in articles written in her last years of life.

In a 1968 article which bears the same title as her two Life Course books, Charlotte Bühler reflected lucidly on her 1933 *Lebenslauf* and characterized it

as dealing with: "[...] the lives of personalities who for one reason or another have become outstanding. An impressive fact was that most of these lives seemed to have an inner coherence, which appeared due to some unifying or integrating principle. This integrating principle seemed to evolve from certain expectations which permeated these people's lives; it suggested that human life was lived under certain directives" (1968a, p. 184). This reads as a reaffirmation of Bühler's 1933 theses, but her years as a therapist in America had given Bühler a more realistic view of the life course. Though a unifying principle may be noticed in the lives of some healthy ordinary people, such as Bill Roberts (Bühler's Everyman: a good, resourceful, and optimistic representative of middle-class America), others do not exhibit similar consistency, nor signs of "consistent pursuits" (ibid., p. 185): "Many people never think of their lives as a whole or conceive of them as a continuous period of development. They live what might be called a segmented life" (Bühler, 1968b, pp. 2-3).

So great is Bühler's missionary zeal to give everybody a chance of fulfilment that, in a chapter on *The integrating self* (Bühler, 1968c, p. 345), and in an earlier article (1959b, p. 566), she explores differentiated and accessible ways, which correspond to the relatively successful pursuits of the four basic tendencies.

Happiness corresponds to the tendency to pursue any kind of tension-reducing satisfiers, be they physical, emotional or intellectual. It gives rise to hopes for happiness through personal satisfaction in sex, love, wealth, and ego-recognition need satisfaction.

Success in participation means integration into society and mankind and requires adaptation to given situations. Here, as with happiness, opportunity plays a role in that some people feel they were given a chance appropriate to their potentialities, while others feel that circumstances prevented them from fulfilling their potential.

Accomplishment is related to the tendency towards creative expansion: the tendency to change the world through achievements. People think that their lives should amount to something, bear fruit and represent an accomplishment of some kind.

Dedication results from the tendency to uphold the internal order. This harmony, or internal order, is established by beliefs, which do not necessarily have to be moral. It produces the feeling that one has lived justly, and in old age can feel peace of mind.

A version of Bühler's life-span studies in the form of a personal development manual was published in German as *Wenn das Leben gelingen soll* (1969), and translated into English in 1971 as *The Way to Fulfilment: Psychological Techniques*. Like the 1933 *Lebenslauf*, the book retells numerous life stories, no longer the heroic biographies of eminent people, but the stories of Bühler's patients. The four tendencies are used as the key to explaining the patients' difficulties. Psychotherapy, or just reading *The Way to Fulfilment*, will help people find out what they truly want and what their inborn tendencies are.

As a result, they will be able to: “[...] *strive for the development of their potentialities*, in such a way that they take into account both *the satisfaction of their needs* and *their creatively expansive abilities*, at the same time *adapting themselves as much as possible* and standing up for *convictions* that serve themselves as well as humanity” (Bühler, 1971b, p. 83; Bühler’s italics).

Bühler’s life-course studies were truly the endeavour of a life-time: in 1933, she was just forty; her 1959 version appeared after she had turned sixty-five; between 1968 and 1971 she was into her late seventies. In her first writings, Bühler did not pay great attention to the influence of historical, social or cultural change, but, ironically, her own research was marginalized as long as behaviourism held sway; it was rediscovered in the sixties with the rise of cognitivism and humanistic psychology.

The elitist 1933 biography-based *Lebenslauf* focused on development through professional accomplishments; Bühler’s interview-based American writings seemed to give everybody an opportunity to find some kind of fulfilment. These differences must not obscure the continuities in her life-course work: attention to subjectivity and inner-directedness.

NOTES

- 1 The book was not translated, but Rubinow (1933) wrote a thorough summary in English. Most of Bühler’s European material has not been translated into English. Translations are my own.
- 2 As a forerunner, Bühler mentions Friedrich August Carus, who had dealt with the question of the ages of life in the second volume of his *Psychologie* (Leipzig, 1808), but whose contribution did not generate further research. Diltthey must have been the major influence in her recourse to biographies. Other early precursors, Tetens and Quételet, are not mentioned. See Baltes et al. (2006, p. 569ff). More surprising is the absence of any discussion of Stanley Hall’s *Adolescence and Senescence*. Gordon Allport pointed out that Bühler “failed to compare her methods and findings with previous research, for example with the studies of Galton, Cattell, Terman, Plaut and Giese” (Allport, 1933, p. 338), but acknowledged the novelty of her work.
- 3 Bühler’s stated program emphasized normative age-graded influences, i.e. those factors that depend on chronological age and influence everybody. Her program neglected non-normative influences, i.e. those unpredictable events, such as accidents or winning at the horse races, that are not linked to age. She also seemed to pay little attention to history-graded influences, i.e. the historical events that affect everybody, irrespective of age. Those limitations are more apparent than real as her detailed studies of biographies went beyond age-graded influences and into the idiographic exploration of single lives.
- 4 Segmentation of the life course into age periods is a question that has been studied empirically. Jutta Heckhausen (1999, pp. 38–39) reports on various surveys. Answers varied according to gender and age, but do not exclude Bühler’s five-phase inverted U shape. Allport noted good-humouredly that “Shakespeare chose seven; Pearson, five; Hollingworth, ten; and the Sphinx, three” (Allport, 1933, p. 337). Bühler’s insistence on five phases, a question to which she devoted the final chapter of both her 1933 and 1959 *Lebenslauf* owed much to her fancy of a recapitulation of the five phases of childhood, and to a highly speculative analogy with the five acts of tragedy.

- 5 Similar observations can be found in Engler and Hasenjürgen's interview of Marie Jahoda (2000, p. 7) and, among others, Benetka (1995, p. 178), who censures Bühler for "turning what is cultural and historical into assumptions of anthropological constants."
- 6 Not taking literary genre into account was part of Siegfried Bernfeld's (1931, pp. 29-44) scathing attack on Bühler's uncritical acceptance of the truth value of adolescents' diaries.
- 7 This classification of data was based on Karl Bühler's theory of three aspects in *Die Krise der Psychologie*: actual experiences, outward behaviour, and the productions we give birth to (2000, pp. 49-83).
- 8 This is the usual translation of 'Bestimmung', and Bühler used the words determination in her own later works in English. Yet, a case can be made for other translations. In her summary, Rubinow renders 'Bestimmung' as 'destiny.' I hesitated to translate 'Bestimmung' by the word 'calling' as Bühler stressed tasks and professional life. In his 1933 review, Allport simply left the German word 'Bestimmung' untranslated.
- 9 Jochen Brandstädter generously acknowledged his debt to Charlotte Bühler. His work on future selves, life plans and cultural scripts (Brandstädter, 2006, p. 550) is indeed foreshadowed by Bühler's notion of self-determination. His major contribution is the detailed study of the processes that mediate between defining and implementing goals.
- 10 Vandenplas-Holper (1998, pp. 112-120) gives a brief summary of both versions and succeeds in situating each in its historical context. For more thorough information on the 1959 version, go to Bühler's own 1968a article in English.

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Pierre Janet's "Psychological automatism": between philosophy and ethics

Régine Plas*

1. Introduction

In 1889, Pierre Janet (1859–1947), who was then a philosophy teacher at Le Havre Lycée in Normandy, defended his philosophy thesis *L'Automatisme psychologique* at the Sorbonne. His uncle, Paul Janet, an eminent philosopher of Victor Cousin's eclectic spiritualist school dominant at that time in the French university, was a member of the jury. The other members were chiefly spiritualist philosophers. The viva report was full of the highest praise, and emphasised that "the author was the first philosopher to introduce the experimental method, formerly used only by physiologists" and that he "had managed to avoid the pitfalls of the subject, with great dexterity, by keeping carefully away from the medical field and positioning himself exclusively in the field of philosophy."¹ Nevertheless, as soon as Janet's thesis was published, it was considered an event by doctors and philosophers alike. The following year, Charcot set up a clinical psychology laboratory for him, at the Salpêtrière hospital. From the beginning, then, the book was placed in a paradoxical situation, since it received an excellent reception from the spiritualist philosophers, and the doctors considered it to be the most brilliant illustration yet of the "new psychology" defended by Taine and Ribot, the archenemies of spiritualism – even Paul Janet's "liberal" kind.²

It has been already shown that *L'Automatisme psychologique* owes as much to spiritualist psychology as to the "new psychology" (Carroy, Plas, 2000a, 2000b): indeed, in opposing an inferior automatic – more or less conscious – activity to a superior function of mental synthesis, Janet found a way to save the philosophers' unity of the self. In extending this work, it seems useful to trace Janet's concept of psychological automatism back to its origins, and establish a link between the philosophical legacy directly underlying this concept, and what could be called Janet's anthropology. Finally, the focus will be on how this anthropology conditioned Janet's therapeutic practice and the ethics running through his writing.

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2. Psychological automatism

According to Janet, automatic activity is elementary human activity. Automatic actions have two natures: firstly they are spontaneous, meaning they are apparently not the result of external impetus. Secondly, they are regular, subject to strict determinism, and "where they are concerned, there is no question of that free will claimed by the superior faculties" (Janet, 1889, p. 24).³ Following this definition, he claimed that the study of automatic human activity was part of psychology, despite having been left wrongly to the physiologists on the grounds that this activity was devoid of consciousness. It must be remembered that from the 1840s onwards, certain physiologists, in particular the Englishmen Laycock and Carpenter, had formed the "unconscious cerebration" hypothesis, to account for somnambulism and dreams (Gauchet, 1992). According to this hypothesis, the brain could work reflexively and therefore without consciousness. Janet believed "automatic reflex and consciousness can be accepted at the same time" (Janet, 1889, p. 24). For this reason, he felt it was justified to talk about psychological automatism. However, the consciousness spoken of here was not normal consciousness, but an inferior, rudimentary and impersonal form. Indeed, Janet saw automatic activity as diametrically opposed to the mind's voluntary activity. Voluntary activity synthesized and organized phenomena, relating them to what he called "personal consciousness" or personality, and was determined by judgement and attention. Above all, it was creative. Automatic activity, on the other hand, conserved and repeated synthesis organized in the past. This is how he explained, for example, that when the hysterical patients he hypnotized developed what he called successive or simultaneous "psychological existences" – rather than "double personalities" – they replayed scenes from their childhood. They were repeating former synthesis. In normal people, these creative and conservative activities coexisted and balanced each other. Yet if the synthetic function weakened, the automatic reflex would take over, and "The entire history of madness [...] is merely the description of psychological automatism left to itself; and this automatism in all its forms stems from that actual synthetic weakness which is moral weakness itself, psychological deprivation" (Janet, 1889, p. 447).

The assertion that automatic actions were accompanied by a certain form of consciousness meant that, to Janet's mind, consciousness remained the subject of psychology. He said as much explicitly in his philosophy textbook intended for secondary school pupils, first published in 1896, which went through numerous editions until 1930.⁴ In it, he defined psychology as "the science of acts of consciousness, and their laws" (Janet, 1904, p. 8). However, as he noticed that many states of consciousness are confused and obscure, like "certain actions we have accomplished unknowingly when we were absent-minded" (*ibid.*, p. 178), he referred to Leibnizian theory of insensible perceptions. According to Janet, those perceptions are not unconscious, because there is always some rudimentary consciousness in the process, but

the idea of our personality" is missing: he called "subconscious" those inferior states of consciousness. Janet's psychology is thus not an unconscious psychology, but rather a psychology of degrees of consciousness structured by a dichotomy between the mind's superior operations controlled by will, and the inferior operations where automatism reigns supreme and this dichotomy must relate directly back to Maine de Biran's philosophy.

3. Maine de Biran, the double man

In 1845, the psychiatrist Jules Baillarger (1809-1890) formulated his famous theory of automatism, intended to account for hallucinations. He distinguished two opposing states in the mind: in the first, ideas were guided by free will; in the second, a succession of pictures and memories escaped the will and followed their own law: this was the "automatic reflex of the intelligence," through which we lost our humanity, to live "like a thing" (Baillarger, 1845, p. 495). This happened in the dream states of normal human beings, and in the delirium and hallucinations of the insane. Baillarger took up this definition from the spiritualist philosopher Théodore Jouffroy, who himself inherited it from Maine de Biran. Janet quoted Baillarger and Jouffroy, and another psychiatrist, Moreau de Tours, who was also inspired by Maine de Biran, and who classified hallucinations and insanity with dreams. Yet he more often claimed to be a follower of Maine de Biran himself, whom he considered "one of the forerunners of scientific psychology" (Janet, 1889, p. 28).

Maine de Biran⁵ (1766-1824) is certainly not one of the better-known French philosophers and politicians. Access to his laborious works is difficult, since he published few books during his lifetime, and left a large part of his writing in the form of notes and drafts. His previously unpublished works and diary were published between 1834 and 1963. It is worth noting that it was Victor Cousin who established the first classification of his manuscripts in 1825. In this work, only the aspects of his doctrine which seem to have directly influenced Pierre Janet will be mentioned.

According to Maine de Biran, self-consciousness originated from a primitive event; the muscular effort in which the self became free will, that is, an active force or power meeting the resistance of matter. This original experience enabled human beings to be absolutely sure of their individual existence, unique and identical, whatever the contingent internal and external modifications. They thus distinguished themselves not only from the object, but also from the mobility of their sensations and representations. The will was free, because it was a "hyperorganic" and non-material force, able to act on certain parts of the organism but independent of the body - in other words, the self itself. Consequently, each time free will was absent or suspended, human beings lost their sense of self, and ended up submitting to the organism's blind functioning in a return to the animal state. This was what happened in dreams, somnambulism, passion, hallucination, insanity and

generally speaking, all those states where we no longer master the course of our impressions and perceptions.

This opposition between active and passive states in the life of the mind constituted the fundamental dimension of Maine de Biran's doctrine. All his commentators remind us that his health was delicate: "great nervous mobility" in his own words. They felt this was one of the reasons for his active participation in the debate on the relationship between the physical and the moral, which was so intense among 19th century philosophers and doctors. On account of having "not much life," Maine de Biran claimed to feel within himself that alternation of states where the will managed to overpower organic tendencies, and states where it was powerless against the body's ailments. In his opinion, human beings were "double," their first nature being animal, since it was dependent on the body's functions and controlled by the laws of necessity, while their second nature was human, conscious of itself and exercising free will.

For this reason, he claimed that the lunatic who had lost his sense of self "finds himself struck off the list of intelligent beings" and it was wrong to think him capable of attention, for attention is "a voluntary act of the mind" (Maine de Biran, 1820, p. 40). Briefly, Maine de Biran believed that insanity led to the suspension of all the mind's active faculties, such as judgement, comparison, reflection, etc. On the other hand, the passive faculties like imagination, passion and mechanical memory could still function.

The relationship between Baillarger's automatic reflex theory and Maine de Biran's description of the "double man" is obvious. It seems that this description is no further from Janet's theory, and that it has led to a certain number of consequences, in its etiological concept of mental illness but also in its therapeutic practice and underlying ethics.

4. Maine de Biran's legacy in Janet's psychology

As we have seen, Janet, like Maine de Biran, placed the activity-passivity opposition at the heart of his theory, since he opposed voluntary activity, which created new synthesis, to automatic activity which only reproduced and could not innovate. We should note in passing that some of Janet's contemporaries strongly denied this concept. Binet was the first, asserting in his review of Janet's work that psychic activity producing new associations between images could develop without the notion of personality being present (Binet, 1890). The Englishman Frederick Myers (1843-1901) and the Swiss Théodore Flournoy (1854-1920) also thought that certain creations stemming from that automatic activity known as the unconscious, subconscious or subliminal could be far richer and even superior to those produced by conscious mental activity.

Secondly, in Janet's opinion, the voluntary act amounted to relating conscious phenomena to the self, or the personality. Here, his reference to Maine

de Biran is totally explicit, for he writes: "We have adopted Maine de Biran's opinion which distinguishes in the human mind a purely emotional life of isolated sensations – phenomena that are conscious but unlinked to a personality – from a perceptive life of sensations brought together, systematized and connected to a personality" (Janet, 1889, p. 294). No doubt Janet, unlike Maine de Biran, did not consider the self as a hyperorganic force, or rather, he referred this statement to metaphysics and claimed that psychology and physiology were parallel sciences studying the same subject while adopting different points of view. However, in the field he was studying, physiology was uncertain, and so he stuck to "pure psychology," as he put it (*ibid.*, p. 451).

Like Maine de Biran, he claimed that the unity of the self was developed through voluntary acts. Correlatively, he adopted as his own Maine de Biran's idea that insanity is the partial or total loss of the sense of self, since, to Janet's mind, psychological disintegration was explained by a synthetic flaw, which lay at the root of automatism. This flaw did not make sensations unconscious, but rather impersonal, for they were felt, but not attached to the "I". The self "does not contain them" (*ibid.*, p. 296).

Janet ascribed this disintegration to moral weakness or "psychological destitution" which led to the "loss of unity" in the sufferer and originated in a variety of causes: heredity firstly, but also intoxication, infection, tiredness and physical weakness. He suggested possible moral causes but remained very evasive on this point, and tended to favour organic causes. He quoted an extract from Maine de Biran's diary in support of his hypotheses, in which the latter complained that his "destitution and extreme low spirits" made him feel like a *sleepwalker*⁶ (*ibid.*, p. 432).

Finally, synthetic power and automatism were the two extremes between which all human beings oscillated "all the more determined and automated when their moral strength is weakest, all the more worthy to be considered free, moral beings when the small amount of moral strength they possess, and whose nature is unknown to us, increases" (*ibid.*, p. 447).

In his subsequent works, Janet did not limit himself to the opposition between automatic activity and synthetic activity, but developed a monumental system of dynamic psychology in which the idea of force or psychological energy occupied a central place. Psychological force conditioned synthetic power. Consequently, he never stopped claiming that all mental disorders stemmed from psychological weakness, which destroyed the sufferer's willpower. It must be remembered that, from 1901 onwards, he had created a nosographic entity that brought together a wide range of disorders, which he called *psychasthenia* – etymologically, lack of vigour of mind (Janet, 1903).

A number of his therapeutic methods followed on from this. They aimed at increasing "the power of mental synthesis and those faculties deriving from it: willpower, judgement, attention" (Janet, 1894, p. 152). In the attempt to widen his hysterical patients' field of consciousness, he suggested exercises designed to gradually increase their attention span. The psychasthenic's psychological force had to be increased through rest or food, and patients

were encouraged to avoid wasting vital energy in order to save this force, and to raise psychological pressure by means of various stimulations, so they could manage to carry out increasingly complex tasks.

Thus, to a great extent, Janet's therapeutic methods followed on from his implicit anthropology, which emphasized voluntary action and the unity of the self. Yet, he did not limit himself to that single application of his theory. Indeed, he peppered his works with the sort of considerations usually penned by moralists rather than by scientific psychologists. From 1889 onwards, in *L'Automatisme psychologique*, he expounded at length on passion, which he compared to suggestion, and which he thought "humbled our pride by placing us on a level with lunatics" (Janet, 1889, p. 435). To his mind, passion could only develop in a person weakened by illness, tiredness or sorrow. A healthy person would not be contaminated, and we were not likely to fall in love continually during our lives. As for love at first sight, he wrote in 1925, "It is essentially an immediate conviction, delirious and prolonged" in other words, an obsession (Janet, 1925, p. 1390). On sadness, he wrote that it was "always an indication of weakness, and sometimes of the bad habit of living in a weak state; pathological psychology studies have shown us what is harmful, and they underline something very important: the value of work and joy" (Janet, 1927, p. 336).

5. Conclusion

In the final pages of *L'Automatisme psychologique* Janet examines the recurrent preoccupation of moralists throughout the ages: the struggle between human beings and the beast within each one of us. To illustrate, he recalls the description of the "system of the soul and the beast" by Xavier de Maistre, author of the famous work *Voyage autour de ma chambre* (1794). Xavier de Maistre says that his "beast," usually in charge of everyday life activities, does not always obey the orders given by his soul: for example, while his soul meditates on painting, his "beast" takes him to the door of his mistress instead of taking him to the king's palace, where he was supposed to go. In it, Janet found a perfect summary of automatic thought reflexes, brought about by distraction, habit and passion. Janet the philosopher assigned a number of tasks to psychopathology: one of them may well have been to contribute to a theory of wisdom which turns out to be very classical, after all.

- 1 As cited in Nicolas, 2003, p. 8.
- 2 In his autobiography, Pierre Janet writes: “Paul Janet, to whom I owe much, [...] was not only a spiritual metaphysician, the last representative of the eclectic school of Cousin, but he was a great spirit, who was interested also in politics and the sciences, and who, with great liberalism, sought to reunite these studies. He understood the importance of medical and anatomical studies to the moral intelligence of man” (Janet, 1930, p. 124).
- 3 In his analysis of *L'Automatisme psychologique* in 1890, Alfred Binet made the treacherous remark that to a determinist, all human activity, whether elementary or not, was determined and “would consequently deserve to be called automatic” (Binet, 1890, p. 187). Binet, who didn't much like Janet, thus asserted that the question of free will was the philosopher's business, and should not concern a scientific psychologist.
- 4 The 1904 edition, which I have used, was reorganized to fit the new syllabus.
- 5 Marie François Pierre Gontier de BIRAN, known as MAINE DE BIRAN
- 6 Janet's italics

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Assessment-Centre in the German Reichswehr. The 19th and 20th Heerespsychotechnik

Inga Rapp*

Today, simulations of every day working-life are a natural part of every assessment-centre. Many people believe these methods of personnel selection were adopted from America. It comes as a surprise to discover that today's assessment-centres are rooted in Germany – specifically in Nineteen-Twenties' Germany, which was the time of the Weimarer Republic.

At first sight this seems to be unimaginable; the period between the two World Wars is known as an age informed by the military, closely followed by the Nazi era, where *Gleichschaltung* (which means enforced conformity) and oppression of every form of individuality were the ultimate aim.

An employee selection process designed to provide a better understanding of individuals does not seem to fit in with this, especially when the employer in question is the German Reichswehr (the German Armed Forces between 1921 and 1935).

However, the fact that something does not at first glance fit into a predefined picture does not mean that it does not belong there.

First of all let us recall the overall social situation at the time. The First World War was over, and Germany had been defeated. In the Versailles Treaty, Germany's exclusive war guilt has been recorded. It was not just the colonies which had to be handed over to the winners, but many other areas as well, for example Alsace-Lorraine. Danzig and Saarland are controlled by the League of Nations, and the part of the Rheinland to the left of the Rhein – my home – becomes a demilitarised zone under control of the allies. All this understandably lowers the general mood of the Germans. Especially dramatic were the changes caused by the Versailles Treaty as far as the military were concerned. The army was reduced to one hundred thousand in total, and only five thousand of these were allowed to be commissioned officers.

This limitation to one hundred thousand people was especially challenging. During the time of the Kaiser the military had had a very fine reputation – the army represented pride and security, soldiers were supposed to

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be of high morals and good character. By abolishing a large army, precisely these values were lost to the people.

Of course, only the best of the best should be part of these one hundred thousand people. In addition to that, jobs with the Reichswehr were highly valued because of the desperate economic situation in Germany. Against this background, the founding of Heerespsychotechnik, in 1920, was understandable.

Johann Baptist Rieffert was appointed its first head.

Only a very little biographical information is known about Rieffert and unfortunately I could not find a single picture of him. Rieffert was born in 1883 in Cologne. In 1910 he got a doctorate under Benno Erdmann in Bonn, in Nineteen Nineteen he was awarded a professorship with Carl Stumpf in Berlin, and was appointed associate professor and head of Heerespsychotechnik.

Already, during World War One, Rieffert had had the opportunity to get some experience in assessment. He was responsible for the selection of radio operators. This is why until 1926 Heerespsychotechnik was mainly used for specialized exams for drivers and radio operators. From 1927 a completely new assessment centre for the selection of officer cadets was added.

Now, it is obvious why the German Reichswehr wanted a completely new test for personnel selection. But why did it have to be a psychological test?

In Germany the first diploma examination regulations for the profession of psychology were adopted in 1941, which means that everything I have so far discussed took place before psychology existed as an academic subject. How can you work on the basis of scientific knowledge of a subject which does not yet officially exist?

Professor Gundlach made a useful distinction between subject and area. The subject exists for the purpose of training for specific jobs, the area includes much more.

According to Gundlach an area develops either when a topic is methodically separable from other areas, or when a number of scientists specialise in a subject and see this topic of research as a separately defined area. So, logically, an area develops first, before the desire for academic definition can develop at all.

Between the two World Wars, psychology in Germany was in the following state: the area had developed and a group of scientists specialising in it had come together. But this group did not have a scientific basis – only a sort of self-understanding. Part of this was the idea that problems of consciousness and psyche were researchable with empirical methods.

So here science was still in the midst of change; the development of theories was not yet stable. Nonetheless, practical work was carried out, especially in the area of work and organisational psychology. An important name here is Frederick Winslow Taylor, who developed his system of “scientific management” at that time. In Germany the leading figure was William Stern, in Hamburg, whose research field was job suitability. With differential psychology he developed a methodological basis. Then there was

Hugo Münsterberg, who today is known as the founder of economic psychological techniques. He promoted “objective impartiality,” which is fundamental to the self-understanding of working and organisational psychology to this day.

Finally, Fritz Giese deserves a mention as the man who made the difference between subject and object psychological techniques.

In 1925 Giese published a book which offers a broad overview of the psychotechnical methods of those days, methods which were being used not just in the economic sector, but in the military as well. In both areas a similar process took place: there was increasing technicality, and there were new, increasingly complex machines. The invention of the iron and the vacuum cleaner fall into this period, as well as the development of conveyer belts and machine guns. All of a sudden there was lots of complex technology around – technology was everywhere! That is why people had to meet new requirements. It was no longer important to develop machines which people could work with – you had to find people capable of using complex machines. This is why Dorsch (in 1963) refers to the time of World War One as “the real pacemaker of psychology.”

In the military area, specialists were selected with psychotechnical methods. The most important tests were those to test reactions. Drivers for example had to prove their speed and safety of reaction, but also had to do tests for twilight and colour vision. For radio operators it was important to find out whether applicants were capable of hearing time-structured acoustic figures (Morse code) and if they had the motor skills necessary to reproduce these. This was tested with fast writing tests. To test hearing, Rieffert developed a range of tests for the reception of types of tones. These tests were concerned with sharpness of hearing, sensitivity to different intensities of tones, the discovery of gaps and the memory for tonal quality.

Rieffert – again! – was asked to develop a selection test for officer cadets. Instead of specialists, executives should now be selected. But the technical tests which had been used until then were insufficient for this purpose. A new test had to be developed.

This was based on everyday psychology. Max Simoneit, Rieffert's successor as head of Heerespsychotechnik, later published several texts in which the ideas prevalent at the time can be discerned. Simoneit comments regarding everyday psychology: “If a non-psychologist wants to get to know someone in everyday life, he looks into his eyes, listens to his speech and language, looks at his handwriting, thinks about the other's thoughts and train of thoughts, and watches him in his actions. This is what a sensible psychologist does too.”

The theoretical concepts mirrored in these main ideas are remarkable. The psyche is of course looked at as a whole. Here we come across the theoretical connection to Gestalt Psychology. This theory reached the height of its popularity in the 1920s, when it began to take over from the purely scientific and elemental view of things in Wundt's tradition. Furthermore, Simoneit emphasizes visible attributes as the expression of inner processes. This

train of thought follows the tradition of characterology and expression psychology.

Psychological processes are visible externally. Particularly important is the assumption that test situations can be realistic for everyday life. This is the revolutionary concept in the methods of the Heerespsychologen!

What exactly did the concept developed by Rieffert look like?

It is divided into four parts: Lebenslaufanalyse, Ausdrucksanalyse, Geistesanalyse, Verhaltensanalyse.

For Lebenslaufanalyse, people's application papers were looked at: curriculum vitae, reports, and from 1940 onwards the "Sippschaftsbogen" with which you had to prove your Aryan ancestry.

In addition, individuals had to go through a fifteen-minute talk in which further data was collected. An important object of this was to gather so-called "Mileu moments": types of school, changes between schools, experiences during adolescence, travels, meetings with special people and so on.

It was the object of Ausdrucksanalyse to get to know the applicant's character by his external expressions, such as facial expression, gestures, speech and handwriting. Ausdrucksanalyse was often said to be unscientific, as it was an unavoidably interpretative method. Attempts were made to resolve this by controlling how the impression was built up. The result should be objectively measurable. While observing people, for example, one had to be able to name symptoms from which the character traits could be inferred.

An example of speech analysis: the applicant has to give the command "Attention!" to an imaginary group of soldiers. A person with little will power would utter this command with drooping shoulders, quite quietly and without clicking his heels together.

Geistesanalyse served to measure an individual's intelligence. It is another good example of the holistic approach: apart from the common tasks to test ability, there were tasks to discover the methods of thinking and the directions of thoughts, such as the writing of twelve different short essays on aesthetic, organisational and technical topics. Geistesanalyse concludes with an exploration.

Central to Verhaltensanalyse was the intentional side of a person. Main question: how is will used and what position does it have in this person's the entire psychological system?

In a "Führerprobe" an applicant had to lead the other applicants in a task, for example in bending a wire into a hanger. After that he had to give two short presentations to the same group, one with a given, and one with a chosen subject. Then he had to find out, by questioning the group, whether he had been properly understood. Here pedagogic or didactic capabilities were of minor importance. The important thing was to show to what extent you could influence others with your own will. Then there was a "Koloquium," which was also called "Rundgespräch," or group discussion without a leader. The applicants had to discuss something they were interested in, for example the exam they were doing together. The examiner himself only took part for a short time at the start and end of the discussion to help create a sense of

camaraderie and harmony so that the fierce and heated atmosphere of the debate was not a lasting emotion that people took away from this part of the examination.

The interaction between the applicants, that is their social behaviour, is what was observed. The objective of a further method, the "Befehlsreihe," was to discover the importance of intelligence for will-based actions and certain character traits such as diligence. In the first years, only one applicant at a time was tested – later a group test was developed. All of these tests involved physically challenging tasks, such as balancing along a balance beam while kitted out with rucksack, belt, gun and helmet, and fixing a rope on hooks of different heights.

In the group test there were tasks like building a bridge with a board.

Incidentally, applicants' behaviour during meals was also part of this analysis because here it clearly showed their competence in dealing with other people. In all, the exam for selecting officer cadets took two days. The results were discussed in a large group with all the psychologists involved, and recorded in an report.

The introduction of officer cadet selection marks the break in methodological history of Wehrmachtpsychologie. Up to that point the main work was based on machine-assisted tests following the psychotechnical tradition, which was based on Wilhelm Wundt's experimental psychology. Academic psychology did not yet exist – only different psychological schools and currents. These seem to have had a certain influence on the theoretical development of Wehrmachtpsychologie but apart from a very few exceptions this influence is hard to prove. Only from a very general and abstract point of view does the implementation of the ideas that were theoretically developed into practice appear logical. Wundt systematised external observation, and the "Würzburger Schule" added systematic self-observation. Gestalt psychologists counted on empathy. The result of all this was the certainty that the psyche is reflected in external expression. So observation methods which contained all this were developed. One might almost call it a sort of "empathic people-watching."

Most of the time the necessary basics were developed after the requirements were known. This was done mostly independently of academic psychology. At the beginning, when Heerespsychotechnik was set up, contact with the academic world was forbidden by the Versailles Treaty; later the desire to exchange ideas had disappeared. It is possible that the different groups had just developed too differently.

After Rieffert left, Simoneit attempted to systematise and document the theoretical and conceptual ideas behind Wehrmachtpsychologie. The question of why Wehrmachtpsychologen were able to become experts in character assessment so quickly without even having a theoretical background is answered by Petri: "the psychologists were taken to be experts by the military before they could demonstrate that they were." Petri emphasises that "it is the definition of the subject which made what they did possible."

The involvement of the holistic approach in the development of tests for Wehrmachtpsychologie has to be specifically emphasised at that point. This approach turned into the central basis for psychologists in general. From today's point of view, the developments described seem to be historical. At second glance, this impression is deceptive. The current questions and currently used tests are comparable to those described. This is true not only for selection tests in the Bundeswehr, but for the economy in general. Even certain problems are still the same – for example, the objectivity of the impressions of the observers in an assessment centre.

Physiological Psychology in the Early International Psychology Congresses

*Gabriella Sava**

1. The first international psychology conferences (1889–1905)

The first international congresses, along with the establishment of specific research laboratories¹ and specialised journals², represent the first signs of the emergence in the history of psychology of the discipline's autonomy. Psychology, notwithstanding, lacked an epistemological statute of its own that would have enabled it to differentiate itself from the field of philosophy, where it had traditionally been found, and the bio-medical realm, a more recent collocation.

The first international congresses reflect the beginnings of scientific psychology and the congress proceedings reveal on the one hand the extraordinary wealth of interest in the “new psychology” but on the other hand the existence of a notable heterogeneity in psychological studies along with incorrigible fragmentation in research interests.

The first international psychology congress took place in Paris in 1889, with Jean-Martin Charcot presiding; the three subsequent congresses were held at regular intervals in the main European capitals: London in 1892 with Henry Sidgwick presiding; Berlin in 1896 with Carl Stumpf presiding; and in Paris again in 1900 with Théodule-Armand Ribot presiding. The 5th Congress was celebrated in Rome in 1905³ with Giuseppe Sergi presiding.

An idea of the difficulty in identifying a unequivocal epistemological identity for the “new” psychology can be gleaned from a look at the laboured attempts to decide upon a name for the international congresses: for the first the term “Physiological Psychology” is used; for the second a wider term is chosen “Experimental Psychology”; for the third congress, a definitive name is chosen which suppresses any attribute that might limit the scope of psychology. Thus, from 1896 onwards the International Congresses were simply, of “Psychology.”

The issue was clearly not just one of terminology, since the choice of

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Congress title guided the direction that was to be given to the discipline as far as both content and methodology were concerned. For example, by using the terms "Physiological," "Experimental" or "Empirical," the relationship between psychology and the scientific disciplines, as opposed to the philosophical realm, was strengthened. Psychological research was delineated, and remained anchored within the natural science paradigm, excluding the possibility of moving towards another approach; the idea however spread that psychologists could look for new applications of their research through the use of non-reductive methodology.

In the first international congresses geographically specific characteristics of the research being carried out were apparent. In spite of the diversity in their theoretical perspectives and methodologies, however, the scholars shared a desire to compare their research into the psyche:

At that time there were many disciplines that sheltered under the umbrella of psychology, and psychologists came from diverse fields: there were physiological psychologists, psychiatric psychologists, medical psychologists and psychologists of philosophy; other psychologists were interested by occult phenomena, telepathy, clairvoyance, etc. (Nicolas, Meunier, 2002, p. 21).

The need to present to as wide an audience as possible the early results of the science of the psyche was explicitly outlined in *Project d'un congrès international de Psychologie* published in 1881 by the Polish scholar Julian Ochorowicz in the *Revue Philosophique de la France et de l'Étranger*. This journal was founded by Théodule Ribot and was responsible for the introduction of "new psychology" to France.

This call to arms by Ochorowicz, considered the founder of Polish psychology, was taken up by the Société de Psychologie Physiologique, founded in 1885 with its famous central figure and president Jean Martin Charcot (1825-1893). The distinguished members included the following: Charles Richet, general secretary, and Ribot, Taine, Binet, Beaunis along with famous psychiatrists such as Bourneville, Cotard, Le Grand du Saulle, Magnan, and Moreau de Tours. In fact, at the end of 1888, the physiologist and vice-president of the Société de Psychologie Physiologique, Charles Richet, with the intention of providing a scientific grounding for psychic phenomena as Charcot had done for hypnotism, planned the first international psychology congress. Richet intended to hold the conference during the World Fair which was to take place the following year to celebrate the anniversary of the *grande rivoluzione*. The Société de Psychologie Physiologique formed the organizational committee for the 1st International Congress of Physiological Psychology and awarded the presidency to Charcot; it furthermore undertook to form an international select committee with scholars from twelve European nations and the USA; it planned the Congress in nine sections and seven sub-sections.

It is worth underlining that although the members of the Société de Psychologie Physiologique were illustrious scholars of neurology, psychiatry, physiology and also philosophy, some of their research interests such as telepathy and clairvoyance, to which they applied scientific methods of investigation, would be classed as parapsychology or metaphysics in today's terms. They modelled themselves on the Society for Psychical Research, founded in 1882 and run by Henry Sidgwick, which sought to raise awareness of and co-ordinate research into certain psychic phenomena linked to theosophy and spiritism.

Ochorowicz's exhortation was referred to by Ribot in the opening speech of the First International Congress of Psychology (Ribot, 1890, pp. 29–30). Opening the congress, Ribot made reference to the significant tradition of scientific congresses in the nineteenth century specifically held by chemists, physicists, natural scientists, biologists, doctors and finally anthropologists: psychologists were the last to take up the opportunity to forge personal relationships that could immediately lead to working relationships, joint ventures and increased cooperation (ibid., p. 29). Scientific work had a new dimension, which was also a "necessary condition" for psychological studies; they could no longer be individual exercises. Psychologists abandoned the "pure speculation" which had dominated for so long and embraced new objectives: continuous observation of normal and pathological facts in conjunction with rigorous experimentation.

The nature of the first two international congresses of psychology reflected the influence of both the Société de Psychologie Physiologique and the Society for Psychical Research: in so far as the first congress was explicitly dedicated to Physiological Psychology, and the main themes dealt with were in the realm of metaphysics. The same was true of the second congress (London 1892) presided over by Henry Sidgwick, entitled *Experimental Psychology*, but with many studies on suggestion, telepathy, hallucinations, sleepwalking, hypnotism, etc. In their research in these areas members of both the Society for Psychical Research and the Société de Psychologie Physiologique affirmed a commitment to scientific methodology (double-blind trials, probability, statistics, etc.), and laboratory experiments when the matters under investigation permit it. There is a naive enthusiasm that excites followers of metaphysics and parapsychology when, in order to satisfy the natural science paradigm, they try to make detailed observations of phenomena which inevitably are not caught by experiments.

Paradoxically, the themes furthest from the current model of science were present in force when the name of the Congress was restricted to only physiological and experimental factors. It was not until the Paris Congress of 1900 and the invective *Contre le spiritisme* by Oskar Vogt, the Berlin doctor specialising in nervous and mental disorders, that there was no longer any place for theosophy, parapsychology and spiritists at the International Congresses of Psychology (Vogt, 1901b).

2. Physiological Psychology and the first international psychology congresses

a. Development of physiological psychology

The first international psychology congress was devoted to physiological psychology. In this we can discern the preoccupation with making psychology scientific. Thanks to the epithet "physiology," psychology was to be liberated from philosophical and metaphysical speculation. While the roots of physiological psychology are to be found in "philosophy of mind" (exploration of the relationship between body and mind, on which René Descartes is the most noted authority), its scientific basis is found in *Anatomie et physiologie du système nerveux en générale et du cerveau en particulier, avec des observations sur la possibilité de reconnaître plusieurs dispositions intellectuelles et morales de l'homme et des animaux par la conformation de leurs têtes* (Paris 1810–1819) by Franz Joseph Gall and his student Johann Gaspar Spurzheim.⁴ They asserted that for every human faculty there is a corresponding cerebral area; that our intellectual, moral and psychological characteristics depend on the functional organisation of the brain. Furthermore, they affirmed that the fundamental characteristics of an individual's personality, mental constitution and tendencies, could be ascertained from an analysis of the cranium and consequently the underlying cerebral mass.

Gall and Spurzheim's theory of phrenology entails a new approach to psychology: in what amounts to a clear break in relations with the philosophical tradition, they see psychic life as dependent on cerebral mass and each individual function – for example in the human brain there are 27 faculties, 19 of which are also present in animals. With this theory, psychological research focuses on cerebral physiology, fuelling materialistic tendencies, in so far as explanation of psychic activity is seen as having no need for recourse to a presumed spiritual substance, known as the 'spirit'.⁵

Phrenology may be applauded for freeing psychology from abstract speculation, but it has to be recognised that psychology was thus reduced to cerebral physiology, with the risk of becoming neurophysiology: however, the alternative for psychology was to risk not being recognised as an autonomous discipline, with inevitable institutional consequences.

Flourens elaborated a contrasting theory to that of Gall and Spurzheim, which localised functions in neuraxis: intelligence is located, as a result of experimentation, in the brain hemispheres on which functions of the psyche depend like sensory perception, memory, judgment and will. Unlike the phrenologists, Flourens specifies that functions of the psyche are not to be associated with single parts of the hemispheres, but to the hemispheres in their totality. As far as the mind–body relationship question is concerned, he favours "interactional dualism" and sees phenomena of the psyche as manifestations of a united, unique and indivisible organ, represented by the cerebral hemispheres; which in turn are considered not reactive to direct

stimulation, therefore unresponsive, external to and not sensitive to nerve impulses.

Various developments in the theory of localization followed, some rigid and some more flexible (Cimino, 1984, pp. 66-79): early scholars located the functions of the psyche in well-defined cerebral areas; later theorists proposed holistic interpretations, in which the functions of the psyche depend on global activity and the integration of all the cerebral activities. Most notably, from 1870 onwards, following on from experiments on the localization of the language centre of the brain by Broca, and experiments using electrical stimulation by Fritsch and Hitzig, a new approach to the mind-brain relationship emerged along with a new perspective on psychology: the processes of the psyche are considered functions of the cerebral cortex, an organ seen as having distinct centres. From this new perspective, reductive materialism, which made psychology into physiology, is not a danger; rather we have psychophysical parallelism, in which physical phenomena and phenomena of the psyche proceed in parallel and in a biunivocal relationship.

The parallel hypothesis, unlike materialistic monism, encourages growth in neurophysiological research and affirms the scientific autonomy of psychology, which is no longer reduced to neurophysiology, but also completely freed from philosophy.

From this perspective, the work of Wundt – his attempt to bring about an integration of physiology of the nervous system and psychology – takes on a special significance: psychology is established as science, tied to all the other living sciences, from biology to neurophysiology.

In 1874 Wundt, following on from his collaboration with Johannes Müller, Émil du Bois-Reymond and Hermann von Helmholtz, with a marked influence from Helmholtz's⁶ sensory physiology, published *Grundzüge der physiologischen Psychologie* with which the legitimization of physiological psychology as an autonomous science⁷ really got under way.

b. *Physiological Psychology in the early international psychology conferences*

Ten years after Wundt set up the first experimental psychology laboratory in Leipzig, a date traditionally taken as the starting point for “new psychology,” there was the first international congress of physiological psychology; at which the founding fathers of scientific psychology and the most illustrious experts in psychology⁸ were present, even if, as has been stated, only some of the congress sessions were devoted to physiological psychology.

In the opening speech at the First Congress, Ribot presided owing to the absence of Charcot, and outlined a list of the themes at the core of physiological psychology research which would all be discussed during the Congress: the study of the nervous system, seen as the link between physiology and psychology; experiences and observations regarding cerebral localization; analysis of sensations, seen as the “raw materials” for our mental life;

other research papers presented at the congress looked at statistical and experimental research into mental images and the first attempts to analyse abstract and general ideas; studies regarding the association of ideas; definitions of voluntary and automatic movements; and research into hereditary factors of a psychological nature.

In addition to physiological psychology, another controversial issue discussed at the 1st Congress was hypnotism, on which there were two opposing schools of thought, represented by Nancy and Salpêtrière. Even if Richet had hoped to bring about a reconciliation between these two French schools, Nancy prevailed and won considerable support during the congress, although hypnotism would remain a highly controversial issue at subsequent congresses.

Richet, a physiologist who was to receive the Nobel Prize for medicine in 1913 and was also famous for his studies on phenomena of the psyche, seems to have explored how psychology interfaces with medicine. The paper on "poisons of the psyche" was schematic but thorough: it included a classification of how various substances – from alcohol to morphine, from tobacco to opium – impact at a psychic level; attempts were made to identify the effects, length of effect and causal mechanisms of these substances, raising numerous further questions for discussion at the Congress (Richet, 1890).

To Richet is attributed another psychophysiological study, regarding a dog that is classified as having psychic blindness as a result of the destruction of the occipital lobe. Following discussion of the topic and contributions from Magnan, James, Bajenoff, Forel, there was clarification of the nature of the surgical intervention, follow-up experiments, with a view to applying the results of the investigation to humans.

Also within the realm of psychophysiology was a discussion of muscular sensibility. Muscular sensibility as a concept had been analysed in the preliminary congress papers, both as a "consciousness" of our body's situation and of its parts, and as "sensation" which accompanies muscular movement. At the congress particular attention was focussed on sensation derived from superficial skin, joint sensitivity and muscular sensitivity itself.

In order to fully understand this multi-faceted topic, a study commission presided over by William James had been formed with the objective of putting together a textbook. There were many contributions on this point, including those by James and Richet, but above all a heated debate between Binet and Janet over the relationship between intensity stimulation and the intensity of sensation: for Binet the intensity of the sensation, if not the cause at least has an effect upon the sensation; for Janet on the other hand, the sensation is not due to the quantity of stimulation but its quality (Congrès, 1890, pp. 70-72).

Another topic of discussion at the boundary between biology and psychology was psychological inheritance, on which Francis Galton (1822-1911) presented a paper. He developed the Darwinian theory of the inheritance of acquired characteristics and tried to apply it to the realms of biology and psychology, exploring the possibility of hereditary transmission to descendants of mental habits acquired by parents. During the discussion a

questionnaire was proposed designed to identify the presence in family groups of hereditary similarities and transmission of habits, memories etc.

In the Second Congress, devoted to experimental psychology, once again metaphysical ideas are given most space, but the role and importance of physiological psychology are more clearly asserted. In the paper *L'avenir de la psychologie*, Richet maintains that Psychology is part of Physiology, since the fundamental question is how *l'esprit* and *le corp* unite. A thorough physiology of the brain is, in his opinion, the first problem to be resolved by psychology. There are many questions to be answered. In particular, psychological research has to explain the relationships between ideation and cerebral circulation, with the chemical exchanges that take place in the nerve cells, with electrical phenomena; they need to localise the various psychic phenomena in specific regions of the brain. In general, Physiological Psychology is defined as the study of sensations, more precisely as investigation into the relationship between sensations and peripheral stimulus, such as for example, studies into differential perceptive sensibility, looking at sensory threshold, etc. (Richet, 1892, p. 25).

There were many papers in the area of Psychophysiology: Henschen from Uppsala on visual perception and localization of sight in the visual area of the cortex; on the localization of functions in monkey brains, tested using electrodes; Ransom's work on muscular sensibility in epileptics; Schäfer's work on the role of the prefrontal lobe derived from experiments entailing lesions in that area in monkeys, was used to demonstrate that conscious intelligence is not a function of that area in humans; Waller on the functioning of the cerebral cortex; Ebbinghaus on colour recognition, Heymans on attention, Binet on the nerve system involved in the flight of beetles, Titchener on the binocular effects of monocular stimulation, Goldscheider on muscular sensibility in the blind, Lange on perception in general.

Bain's paper on *The respective spheres and mutual helps of Introspection and psycho-physical experiment in Psychology* was surely pertinent to the methodological relationship between psychology, physiology and physics; it discusses the quantitative analysis of mental facts compared to a qualitative analysis.⁹

At the Third International Congress of Psychology held in Munich in 1896, presided over by Carl Stumpf, a student of Brentano and a protagonist in the hard fought debate over Wundt's experimentalism, a greater number of physiopsychologists participated and more attention was paid to experimental method. In fact, during the Congress there was an exhibition of instruments, grouped according to their manufacturer (Zimmermann, Petzold, Zeiss, etc.): medico-physiological instruments, but also psychological instruments, put on show by the management of the Physics Institute, and run by Leo Graetz, a professor of Physics at Munich University and Schumann of the University of Berlin.

In his opening speech Stumpf felt the need to give an overview of the brief history of psychology, beginning with the areas of research that had evolved in the previous ten years. Taking Fechner as a starting point, Stumpf

focussed on the Spinozian roots to his monistic psychophysics, in the same vein he returned to Hume to explain causal relationships between psychic phenomena and physics.

Bearing in mind the historical development of psychology, Stumpf also illustrated the various parallel theories that try to explain mechanical processes, in the context of the relationship between physics and psychology. In his opinion, in both sciences the method he defines as "quantitative/symbolic" is to be used, even if a distinction has to be made between phenomena of the psyche that have at their core mathematical or physical qualities and those that don't.

Stumpf was in favour of parallel theories and welcomed as an assumption localization theory, even if he limited its application to elementary phenomena of the psyche.

For his part, Theodor Lipps, the Congress vice-president, advocated the independence of psychology from on one side the pretensions of the tyranny of dogmatic and aprioristic metaphysics and on the other side the pretensions of its equally irrational recently, physiology, which was seeking to get into bed with Procuste and a new far more dangerous and reckless metaphysics dressed up as science and positivism.

Psychophysiology is one of the five areas of the congress along with Psychology of the Normal Individual; Psychopathology and Criminal Psychology; Psychology of Sleep and Dreams, including those induced by hypnosis; Comparative Psychology and Pedagogy. The area dedicated to Psychophysiology is separated into: Brain Anatomy and Physiology; Physiology and Psychology of the senses; Psychophysics. In the first sub-categories we can find the following topics: Anatomy and Physiology of the brain and of sensory organs; development of the central nerves; localization theory and neurones, association pathways and brain structure; psychic functions of the central nervous system, reflexes, mechanical processes, innervations and specific energy.

As can be gleaned from the fact that psychophysiology was accorded the first congress session, the somatic base to the life of the psyche is the point of departure for psychological research, running the risk of reducing psychology to the spheres of physics and physiology. Amongst the other scholars, the Italian physiologist Luigi Mariano Patrizi, a professor at the University of Sassari, contributed two papers, respectively *Primi esperimenti intorno all'influenza della musica sulla circolazione del sangue nel cervello umano* and *L'equazione personale studiata in rapporto colla curva pletismografica cerebrale*; in these the author revealed the relationship between an organic function, artery pressure measured at a cerebral level, and sound stimuli of various types, with the addition of recording of changes in cerebral pressure levels during general activity such as paying attention.

The Fourth International Congress of Psychology, was held in Paris between the 20th and 26th August 1900, with Ribot as the president and Janet as the general secretary; the programme was notable for its apparent similarity to the previous congresses, but in reality during the Congress clear distinctions emerged

between the different models of psychology; distinctions that had actually long existed. In the opening speech *La psychologie de 1896 à 1900*, Ribot declared that he wanted to limit himself to a brief summary of the main themes of psychological interest; he stated that studies pertaining to anatomy, histology and physiology of the nervous system are indispensable conditions for psychological research but for this very reason must be deemed complementary to real psychology:

D'abord, l'anatomie et la physiologie du système nerveux tiennent une place d'honneur par l'importance et par le nombre. Je n'y insisterai pas, parce qu'il faut bien admettre que, si elles sont les conditions nécessaires, indispensables, des recherches psychologiques, elles restent, en définitive, des sciences auxiliaires, et que tant les phénomènes nerveux n'ont pas été interprétés, traduits en termes empruntés à la conscience, il n'y a pas encore de psychologie (Ribot, 1901, p. 42).

Real psychology entails sensory research, which is seen as the "raw materials for mental life"; these studies predominate, according to Ribot, both in terms of mainstream and more specialised research. The latter have not been carried out on all the sensory organs but have addressed the study of the so-called "internal sensations" and in particular of muscular fatigue.

The other themes of psychological interest that were widely studied, Ribot reports, were memory, association of ideas, attention and emotions. These themes had not been sufficiently explored during the early stages of experimental psychology since they dealt with "superior regions" and required the integration of methods from psychophysics with other procedures, such as investigation, questionnaires and data gathering.

In the congress, cerebral physiology was one of the six General Sections; one out of the seven Special Sections was dedicated to the relationship between psychology and anatomy, and a second to that between physiology and comparative physiology; these two special sections were then united in one section under the presidency of Yves Delage, Professor of Zoology and Comparative Anatomy at the Sorbonne, Paris: also if one looks at the space dedicated to psychophysiology it emerges that psychologists no longer require the "protection" of bio-medical science, just as they became autonomous in respect to philosophy, although one cannot deny the support that both sectors offer to psychology.

Among the papers on brain physiology the most interesting are those by Hébert and Demoor on the physiology of the cerebral cortex, Joteyko on muscle fatigue measurement in central and peripheral organs, Lehmann on the relationship between stimulation and sensation, Patrizi and Casarini on the vascular motor reactions of individuals to different types of mnemonics and their classification according to "personal equations." In the Section devoted to psychology's relationship with anatomy and physiology, some contributions demonstrate the importance of cerebral histology, such as Stefanowska's work on the protoplasmic appendices of nerve cells, or deal

with certain functional relationships: Joteyko looks at muscle fatigue as a defence function of the organism, Philippe describes the first movements of the infant, observed in a foetus of about five months. Adopting a polemical position in respect to the neurophysiological framework of psychology, Vogt accepts the importance of anatomy and cerebral physiology, but emphasises:

C'est sur les méthodes purement psychologiques que nous devons baser la psychologie d'aujourd'hui et celle de demain. [...] Actuellement, les recherches anatomiques ne sont capables d'élucider les problèmes de la psychologie. Ces recherches sont déjà très utiles aujourd'hui pour le clinicien. Elles le seront certainement un jour pour le psychologue. Mais ce jour est loin, et, pour qu'il s'approche, il faut encore que beaucoup de savants travaillent à l'anatomie du cerveau. Mais les anatomistes doivent rester dans le domaine de leur science et ne pas croire fonder sur leurs recherches une science qui a des méthodes propres à elle (Vogt, 1901a, p. 260).

Nevertheless, just as physiology is not entirely dependent on anatomy, psychology cannot be a simple appendix of neuroanatomy or of neurophysiology: psychologists must carry out research with their own methods and elaborate specific hypotheses that can be put to the test, experimentally and integrated with introspection.

The issue of physiological psychology returned to centre stage at the 5th International Congress of Psychology, presided over by Giuseppe Sergi, but with the renowned psychiatrist and Italian Minister of Education, Leonardo Bianchi as honorary president.

In the opening speech, entitled *La psicologia odierna e le sue attinenze con alcuni rami della biologia*, Bianchi argued in favour of the theory of cortical localization, definitively confirmed by clinical research "ensuring a place of honour for psychology amongst the positivist sciences" (Bianchi, 1905, p. 43). He listed the various areas of research that had made psychology scientific, from comparative psychology to experimental physiology, from normal and pathological histology to anthropology and psychopathology: all of which had contributed to producing a map of the brain's differentiated cortical zones and their operations; furthermore, it had been confirmed that those zones "work together carrying out differentiated functions that provide specific contributions to a mental architecture that has long been considered inaccessible by analysis" (ibid.).

The psychological research into localization was, however, far from completed. Certainties existed regarding the localization of only a few functions such as sensory images, motor response and language. Research into the capacity to develop mental syntheses and into the faculty for representing the intellectual and emotional personality in parts of the frontal lobe was still at an early stage. According to Bianchi, as far as histology was concerned, thanks to Golgi's exemplary early work subsequently developed by Cajal, the

complexity of our understanding of nerve cells meant that they were actually designed like organs.

Bianchi was so sure that research in physiological psychology, along with that into histology and psychopathology would lead to the identification of laws located in time and space regarding the phenomena of the psyche, that he felt psychology should aim to be not only a scientific discipline but also a bio-medical science.

In opposition to a psychology concerned with only description and experimentation, the 5th Congress saw the discussion of another form of psychological research, based on the narrative model and interpretation. This was granted a session in the congress, which also had working seminars on pathological psychology and on applied criminology psychology, pedagogy and sociology: this organisation of the congress programme indicated the variety of areas within psychology and of methods of investigation, that were given the same scientific dignity as psychophysiology.

During the congress the dialectic between physiological psychology and philosophical psychology was ongoing and helped to construct the epistemological identity of the “new psychology.” The discussions, however, failing to find a mutually acceptable solution to the matter in hand, fueled controversy between philosophers and biologists over the position of psychology.

Giuseppe Sergi, one of the first Italians, along with Ardigò and Buccola, to work in the field of psychology, distanced himself from Bianchi’s reductionism. He not only saw the complexity of psychological phenomena as irreducible to physiological and biological factors, but also maintained the imperative of cooperation between psychologists and other scholars interested in the understanding of humans in their various facets, moral and social dimensions included (Sergi, 1905a, pp. 48-49).

From this perspective bio-medical science gave psychology an invaluable boost, but psychology did not coincide exclusively with anatomical, physiological or pathological investigations of the brain and the nervous systems, because “perhaps no other science has to rely on so many other sciences to interpret and explore its phenomenon as psychology” (ibid., p. 50).

In the session dedicated to experimental psychology, there were 76 papers on psychology in relation to anatomy and physiology, on psychophysics and on comparative psychology, as well as on themes from histology to the psychophysiology of nerve cells, to nerve fibre structure and function, to the psychophysiology of the sense organs and investigations into the psychophysiology of animals.

Among the contributors there were notable scholars of physiology and neuroscience; Italian psychophysiology was represented by Kiesow, who offered 9 studies and Patrizi, but there were also scholars with a psychiatric background linked to the activity of the *Frenocomio* laboratory in Reggio Emilia like Besta, Brugia, Donaggio, Ferrari, Giacchi and Guicciardi. Among the foreign contributors, there was the group associated with the Institut

Générale Psychologique in Paris in addition to eminent scholars such as Claparède, Scripture, Michotte, and Titchener.

A noteworthy series of papers dealt with the examination of psychophysiological instruments and their use. They focussed not only on known equipment but also on new products that were on show; some practical demonstrations were carried out.

In his closing speech, Sergi brought together the salient themes of the various debates of the congress, and outlined a paradigm for the "new" psychology:

Two tendencies, two methods, have been at odds in this congress, as elsewhere, between thinkers and observers regarding the problems of the human psyche. The direction for the future given by this congress to psychological studies is decisive and evident, in spite of appearances to the contrary. It has been recognised that the observation of the phenomena that entail psychological problems can no longer be empirical, but must be scientific and methodical, and also experimental, with precise instruments, just as in other experimental sciences (Sergi, 1905b, p. 785).

Sergi's observations regarding the different models for psychology in the last congress could be equally applied to the entire first series of International Psychology Congresses. In fact, in all of them, to varying degrees, there is a clear conflict between a research perspective that risks reducing psychology to biology or neurophysiology and the phenomenological perspective that maintains that psychology cannot be reduced to lower levels but does not deny the importance of the basic material of the psyche in terms of its biological and neurological structure.

Reflections on the 'nature' and 'basis' of psychology, which animated the discussions at congresses at the turn of the century, is a constant presence in the development of psychology, and the answers to the questions raised by the research in physiological psychology have been sought in countless research projects in various fields, including interdisciplinary ones.

The attempt to establish a biology, a physiology or neurology of the processes of the psyche, which was historically opposed by behaviourists and psychoanalysts, re-emerged in the twentieth century neuroscientific approach to psychology, particularly in the second half of the century following on from new discoveries about the functioning of the cortex and sub-cortex and new maps of the structure of the brain, at a cellular and molecular level. In the 1970s, in fact, Lurija formulated a new theory of the functional systems of the brain; he identified dynamic "localizations" with a theory of analogous dynamic functions. Subsequently in the 1980s it was possible to observe a progressive integration of the neuroscientific perspective and cognitivism with cognitive neuroscience.

- 1 The first experimental psychology laboratory was set up by Wundt in Lipsia in 1879, and similar structures soon followed in other countries: the first experimental psychology laboratory outside of Europe appeared in 1883 in Baltimore, USA thanks to Granville Stanley Hall, Wundt's first American student; in 1886 Bechterev founded the laboratory of Kazan in Russia; in 1889 laboratories opened in the Sorbonne, Paris and at Rome University, thanks to Beaunis and Sergi respectively; in 1897 a laboratory was opened in England thanks to the efforts of Ward and Rivers.
- 2 In the last quarter of the 19th century numerous periodicals regarding psychology started up: in 1875 Ribot founded the *Revue philosophique de la France et de l'Étranger*, which was not devoted specifically to psychology but published many articles concerned with psychological themes; in 1876 in Great Britain Bain started the journal *Mind*; in 1881 Wundt founded the journal *Philosophische Studien*, which published research from the laboratory in Lipsia; in 1887 Stanley Hall brought out the *American Journal of Psychology*, the first journal on experimental psychology in the United States. Not long after, in 1890, Ebbinghaus and König in Berlin published *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*, which divulged research carried out in the German laboratories. Finally, in 1894, Cattell and Baldwin brought out *The Psychological Review*.
- 3 The Congress should have been held in the autumn of 1904, as had been agreed at the end of the 4th Congress. However, the 6th International Congress of Physiology had been arranged for the same time in Brussels, so a select committee of the 5th International Psychology Congress, presided over by Luigi Luciani, decided in a meeting on the 30th May 1903 to postpone the congress until the spring of 1905.
- 4 The term 'physiological psychology' has been synonymous with "psychophysiology" for a very long time, in the sense of the study of the physiological origins of behaviour, with special attention being paid to the brain. Only around the 1960s can a differentiation be seen to emerge between physiological psychology and psycho-physiology: physiological psychology deals predominantly with experiments carried out on animals, and the effects of the manipulation of physiological variables (for example, lesions or stimulation of brain areas, administration of experimental drugs or medication, etc.) on behavioural variables; psycho-physiology looks at physiological variation related to psychological processes like perception and attention in predominantly healthy human participants.
- 5 The work is in 4 volumes; III and IV are exclusively Gall's, while the first two are fruit of the collaboration with Spurzheim.
- 6 Up until the early 1850s Helmholtz had been doing "pioneering" work on the physiology of vision and sound; subsequently he studied the logical steps of conscious processes (Cappelletti, 1996, pp. 14-15)
- 7 It is worth noting that the "scientific birth" of psychology owes a debt not only to the cultural positivist and evolutionist background at the foundation of research in biology and physiology, but also to psychiatry, which emphatically supported psychological research with a scientific method. In fact, in the realm of psychiatry, research of a psycho-physical nature was taking place and quantitative research was being carried out on individuals with mental health issues to monitor variations in reaction time or the length of time of thought processes. In Italy laboratories opened which focussed on psychophysiology, psycho-chronometry and psychophysics: the *Frenocomio* in Reggio Emilia, run by Tamburini, and the Psychiatric clinic in Turin, run by Morselli. The psychophysiological research carried out by Angelo Mosso in Turin using state of the art equipment was renowned both in Italy and abroad.
- 8 As far as the first international congress is concerned, there were 204 participants including Bain, Beaunis, Bernheim, Binet, Charcot, Delboeuf, Durkheim, Exner, Freud, Gley, Galton, Helmholtz, Hering, James, Janet, Jastrow, Lange, Lipmann, Münsterberg, Paulhan, Ribot, Richet, Sidgwick, Taine, Tarde and Wundt. The Italians present were Cesare Lombroso, Angelo Mosso and Enrico Ferri.
- 9 In the congress proceedings, Marillier underlines some differences between the Paris congress and that of London, stating that not enough space had been assigned to muscular

sensibility and attention, notwithstanding Galton's presence; similarly the question of inheritance, which had been the main theme of the organisers of the Paris Congress was not even touched upon (Marillier, 1892, p. 502).

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1. Introduction

The Institute of Psychology in Bari was founded after the Second World War. Maybe because not enough time has yet passed, or perhaps, as Sadi Marhaba suggested, because of changes in culture as a whole and in “psychology in particular, [...] historians have no alternative but to use [...] different conceptual categories for the pre-1945 and post-1945 periods” (Marhaba, 1981, p. 9). The lack of thorough current historiographical investigations into the 1940s and 1950s is in striking contrast with the increasingly extensive research into the events of the years preceding those two decades. We should therefore dedicate some attention to the efforts of those, like Ponzo, Banissoni, and Marzi, who did their utmost in the post-war period to bring psychology out of the cultural and political obscurity into which it had fallen.

The predominant role of both neo-Hegelianism and Crocean idealism in the totalitarian regime was the main cause of the dark days of psychology. After the Educational Reform promoted by Giovanni Gentile in 1923, psychology was removed as a subject from secondary school syllabuses. Philosophical and pedagogical subjects remained as they were thought to be useful for students intending to go on to train as teachers.

In November 1935 psychology was to some extent rehabilitated as the result of a reform introduced by the Minister De Vecchi. It was to become a main subject in Philosophy degrees and a subsidiary subject in Education, Medicine, and Law degrees, and in 1942 the Ministry of National Education made post-graduate courses in psychology available to graduates in Medicine. The subject was still omitted from secondary school syllabuses, however, although in 1939 the introduction of the “Schools Bill” would redefine the relationship between schools and psychology.

In 1943 Alberto Marzi observed that: “after being disgracefully driven out by a reform issued twenty odd years ago, psychology is re-entering Italian schools through the front door with full honours [...] this time not as some

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sort of subsidiary subject of teaching [...] but as a valuable and irreplaceable aid to teachers in their efforts to fully achieve their educational aims" (Marzi, 1943a, p. 172).

2. Alberto Marzi

At that time Marzi was working in Florence at the Laboratory of Experimental Psychology of the Royal Institute of Advanced Studies, set up by Francesco De Sarlo in 1903. He had been born on 13 June 1907 in Florence, where he obtained a first degree in Philosophy. He then graduated in Natural Science from the University of Modena. In 1936 he became a university lecturer on Experimental Psychology. In the course of his work, Marzi adopted the approach of his teacher, Enzo Bonaventura of the Florentine Laboratory, focusing on both philosophical and scientific fields. In 1948, in a memorial speech thirty days after Bonaventura's death, Marzi paid tribute to him saying that he stood for: "Multiplicity of demands, rigorous training in philosophical studies as well as natural and biological science" (Marzi, 1948, p. 98).

In fact this combining of the two fields of philosophy and science was espoused by the whole of the Florence Laboratory team, which, more than any other Italian research team working at the time, was concerned with tracing the theoretical antecedents of experimental studies. De Sarlo would have approved: in spite of his medical education and his firm belief in the usefulness of experimental psychology, he considered psychology not an autonomous science but a link to philosophy, to the extent that he could affirm that "Psychology, including the Laboratory itself, ought to have its own seat in the Faculty of Humanities" (De Sarlo, 1905, p. VI).

As far as psychology at the University of Bari was concerned, it appeared as a discipline within the temporary Humanities Course which started in 1944. Serafino D'Antona, who taught at the Faculty of Medicine, and later Vincenzo De Ruvo, a philosopher, were responsible for teaching it. The establishment of an official Chair of Psychology and the opening of an Institute took place later, when Marzi arrived in Bari, and coincided with the establishment of the Faculty of Humanities at the end of the 1940s. The Faculty meeting of 28 February 1949 saw the appointment of "Professor Alberto Marzi, who participated in the recent selection process for this position, on account of [his] experience in this field of studies." It is worth remembering that the previous opening for a chair of psychology had been announced in 1931 by the University of Rome.

During the Faculty meeting of 7 November 1949 Marzi outlined his own teaching programme and insisted on the vital importance of founding an Institute of Psychology. The following day he wrote to the rector:

with the scientific progress of this science, various applications of it have been developing in the fields of education, of medicine, of law, and

above all of work through guidance and vocational selection. As the direction universally followed is scientific and experimental, we cannot contemplate such research without appropriate institutes equipped with the appropriate technical facilities which the best universities have long enjoyed. I would urge that an Institute of Psychology be founded in our university, in the Faculty of Humanities and Philosophy. Such an Institute should be equipped with scientific instruments in order that research may begin.

In the following year the Institute was opened. It was equipped with a laboratory where Marzi would continue the investigations he had begun in Florence in various fields: education/teaching, developmental psychology, films, and work. In Berlin and the US he bought a number of educational films for the Bari Institute. These were kept in the "Cineteca M. Ponzo," so-called because Ponzo had promoted a special committee in the 1940s at the CNR (National Centre for Research) to improve the use of films in teaching and scientific research (Ponzo, 1947, p. 2).

As regards work, it should be pointed out that from the 1930s Marzi's interest was increasingly directed towards applied psychology. It has to be remembered that right up until this period "few people in Italy were interested in applied psychology," as Ponzo recalled in 1953. "Those who devoted themselves to these subjects – he continued – had to prove themselves to be well-read and competent in every branch of psychology – general and applied – and to be prepared to put their knowledge into practice effectively at any given time" (Ponzo, 1953, p. 13).

The foundation, in 1945, of the University Vocational Guidance Centre (C.O.P.), the only one of its kind in Italy, was significant. Its aim was to help school-leavers in their choice of university career, by providing advice based on their aptitudes, inclinations and interests, and by taking account of psychosomatic, social and economic factors, and home circumstances. Equally significant was Marzi's work with the Florentine Institute for Applied Psychology, which had been set up in 1930 as the Vocational Guidance and Selection Bureau alongside the "Leonardo da Vinci" Institute of Industrial Technology, and which in 1945 acquired independence and its new name. Its first task was to install apparatus designed for the purpose of carrying out preliminary studies in educational and vocational guidance for pupils of the Institute and in personnel selection for adults (drivers, policemen, firemen, etc.).

These apparatus were constructed in the workshops of the Industrial Institute itself by Marzi who continued with this activity for his entire academic career. The "Multiple apparatus for reaction times" was particularly important. It was built in 1943 – he explained – in order to "verify each type of reaction, i.e. visual or auditory reactions or reactions of choice. [...] The reaction of choice can happen by alternating visual and auditory stimuli with rhythm and a sequence of regular or irregular presentations" (Marzi, 1943b, p. 296). In 1951, during his time in Bari, Marzi revised this opinion by

sensibility and attention, notwithstanding Galton's presence; similarly the question of inheritance, which had been the main theme of the organisers of the Paris Congress was not even touched upon (Marillier, 1892, p. 502).

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remarking that “in the diagnosis of the reactive capacity to stimuli, one should consider not only the reaction time [...] but also the mean variation (mV) as well as the relation between this variation and the average (A) – also the time of restoration. This constitutes the period preceding the elaboration of the reaction of restoration, which represents a phase of the reaction time emphasized by Ponzo” (Marzi, 1951a, p. 4).

After initial 1883 research on time carried out by Buccola (Buccola, 1883), Ponzo started his own studies on time in 1910 in Turin, when he was working in the Laboratory of Psychology directed by Federico Kiesow (Kiesow, Ponzo, 1910; cf. Sinatra, 2000). In 1904 Kiesow had confirmed the existence of sensory and muscular reactions and had demonstrated a third type of reaction. It was an indifferent, intermediated reaction which could be considered a tendency of the subject to gradually assume a determined type of personality during the exercise (Kiesow, 1904). Ponzo underlined the importance of this reaction, thanks to which it was possible not only to highlight the main individual differences between the motor type (slow), and the indifferent type, but also to enable the subject to adapt, through exercise, to reactions different from those which came naturally. He was extremely satisfied with his discovery: the same subject could be trained to react in the desired way! This was the solution to the problem in applied psychology regarding the relationship between inborn aptitudes and their modification on the basis of education, of exercise, and of practice (Ponzo, 1931).

Moreover, in 1933 Ponzo, in collaboration with another assistant of Kiesow's, Gatti, verified the existence of “reaction acts,” i.e. those time intervals that occurred between the stimulus and the subject's reaction to a movement. The graphic records of numerous chronometric proofs obtained using a modified lathe¹ had shown a second time reaction which Ponzo called “reaction of restoration,” while he called the time before that second reaction “period of elaboration of restoration reaction” or briefly, “time of restoration” (Gatti, Ponzo, 1933a, 1933b).

It should be remembered that such a phenomenon had been observed by Mariano L. Patrizi, too. At the end of the 19th century he had created an apparatus for graphic recording in the Kiesowian laboratory with a vertical cylinder – a Baltzar-type kymograph – which, besides its constant rotating motion (a similar instrument was used by Ponzo). At each rotation, the cylinder stopped an electrical circuit from producing audio, tactile, and visual stimuli, the perception of which was signalled by the subject with a button (reaction time) and recorded by a Deprez-signal on the cylinder. The interval between two stimuli was 2 sec. and fixed. Patrizi obtained a psychometric curve of attention which varied slightly when the same subject repeated the test: the time employed for the responses became gradually shorter but, after reaching an optimum, became longer. According to Patrizi, this was a sign of fatigue (Patrizi, 1895; cf. Sinatra, 1999). On the use of this instrument, he wrote in 1924:

Besides the profile, another personal trait, almost a habitual gesture, can be observed in these self-diagrams: the different lengths of time taken by the various subjects to push the telegraph key with the right hand after performing the reaction [...]. In this way, the duration of a voluntary muscular act can be measured. This duration was then different in the various subjects due to the special movement which was required by them. However, it remained more or less constant in the single subject (Patrizi, 1924, p. 97).

As far as Marzi's research was concerned, the testing of the restoration time, performed on a thousand drivers of fast vehicles as well as on a hundred fencers, proved that there was a personal "constant" which was more valid than the time required for a single reaction – with which there was a low coefficient of correlation; this was of remarkable practical importance owing to the high coefficient of correlation existing between the rapidity of the time of restoration, with its index of mean variation, and the lower rate of accidents. He concluded that in the selection of air personnel, the testing of the reaction time should have been integrated with that of the restoration time (Marzi, 1951a, p. 3).

Marzi's decision to transpose laboratory procedures to the social field, particularly the world of work, was, therefore, deliberate.

In fact, it was in tune with L.S. Hearnshaw's observation at the 9th International Congress of Psychotechnics in Paris in 1953 that the year 1930 could be defined as the turning point of psychotechnics, because the main focus of psychology began to shift from work to man at work in a dynamic interaction with the social environment (Hearnshaw, 1954, p. 6). It was in this spirit that, on 12 December 1943, Marzi tackled the topic *Vocation and professional choice* during the first talk held at the Philosophical Library of the Florentine Division of the Italian Society of Psychology, whose inaugural meeting had been taken place on 23 November. In 1944 V. Petri pointed out that Marzi's talk was important because it explained the different meanings of the word "vocation" within psychotechnics and focused on the individual and his wishes in vocational choice. "Much interest," concluded Petri, "was aroused [...] by this topic and by the rich assortment of data [...] concerning the so-called spontaneous vocational choices and collected by the Bureau of Professional Guidance in Florence, headed by Marzi" (Petri, 1935, p. 129).

Marzi's preference for the world of work was consonant with the times: as schools were off-limits, psychologists had no alternative but to make use of their abilities to tackle the problems caused by Italian economic development and focus on the applied activities of psychology, which at that time were defined as psychotechnics. In 1952 Marzi provided a historical reconstruction of psychotechnics (Marzi, 1952), stating that its "probable" origins were in G.T. Fechner's psycho-physical studies, whereas its "certain" origins were to be found in the research carried out in the early 1920s by Walther Stern, Hugo Münsterberg and the Italian pedagogist Guido Della Valle, one of De Sarlo's pupils.

In 1910 Della Valle published *The Laus of Mental Work*, a book which had been “conceived” – he wrote – “in the Laboratory of experimental psychology in Florence [...], and revised with the methods of the experimental technique in the *Psychophysiologischen Institut* of the University at Leipzig.” It was in this work that Della Valle labelled *psychotechnics* as a science which served “to research the most suitable, instructive and educational means of achieving cultural ends and values” (Della Valle, 1910, p. 74).

In discussing whether the experimental research should have been carried out in the laboratory or based on the observations of empirical life, Della Valle recalled the statements made in 1903 by Stern (Stern, 1904), according to whom “Psychotechnics and Psychognostics are possible only when they are halfway between the *Lebenswahrheit* and the *theoretisches Experiment*” (Della Valle, 1910, p. 227, n. 1), i.e. between the truth of life and theoretical experiment.

Therefore, the “idea” of psychotechnics – concluded Marzi – went back to 1900, when Stern himself wrote *Über Psychologie der individuellen Differenzen*. In 1906, with Otto Lipmann he then created, the “Institut für angewandte Psychologie” in Berlin, which was the first Institute for applied psychology in the world. The following year Stern and Lipmann began to publish the *Zeitschrift für angewandte Psychologie*.

Della Valle’s reference to his work in the laboratory at Leipzig allows us to classify the initial trend in Italian psychotechnics alongside the Wundtian experimental trend and the tendency to interpret psychological events as epiphenomena of their corresponding physical events. In fact, after outlining the historical and scientific basis of psychotechnics in the psychophysiology of work in his introduction to the 7th Conference of the Italian Society of Psychology, held in Turin in 1929 and meaningfully entitled *Conference of Experimental Psychology and Psychotechnics*, Sante De Sanctis, director of the Institute of Psychology of the University in Rome, asserted the interest of “our laboratories [...] in the ascertainment and the degree, *a*) of generic fitness for work, *b*) of individual work skills for the cataloguing of individuals, *c*) of muscular, mental, global, or mixed fatigue.” He also identified “sensory and kinetic ability, concentrated and distributed attention, motor suggestibility, speed and precision of movements and acts, and the resistance of the muscular and nerve apparatus when working” as “fundamental psychophysiological operations of human work” (De Sanctis, 1931, p. 33).

Therefore, although De Sanctis considered human work a “creative activity” and proclaimed the “great advantages” resulting from the acquisition of “the concept of the uniqueness of human work” (*ibid.*, p. 31), his lecture demonstrated how that creativity and uniqueness degenerated into their opposites, or in other words into the dismemberment of the human being into aptitudes and productivity measured as physiological reactions. Following the Tayloristic programme which aimed to increase workers’ efficiency through a scientific and rational organisation of working times – a programme approved of by De Sanctis who said that “to deride or fight it in the name of the freedom

of imagination, or of genius, is simply romantic bluster” (De Sanctis, 1931, p. 31) – psychologists focused on work in terms of physiological fatigue, in line with the materialistic paradigm of *man as a machine*. In commenting on a book published at the end of the 1920s by Carlo Alberto Ferrari (the first university lecturer in Italy on the Psychology of Work), the author’s father emphasised the importance of eliminating the causes of fatigue, “because employers also pay for the unproductive hours which lead to no profit” (Ferrari, 1931, p. 108).

Marzi affirmed that “it is not enough to be in possession of a device, but it is necessary to know what its calibrations are, and in order to obtain a calibration, months and perhaps years of patient, persistent laboratory work may be required” (Marzi, 1940, p. 125). It seemed to him that the assessment of aptitudes should be based on “the knowledge of the whole personality of individuals” (Marzi, 1936, p. 3) and that “to the psychologist who accomplishes his mission with dignity, workers are to appear in their real role as subjects of work and not as objects” (Marzi, 1940, p. 122).

At the National Institute for Accident Prevention (E.N.P.I.), which he had opened in Bari in 1951 as part of the University, Marzi insisted increasingly on the importance of focusing on the whole personality, or the *human factor*. This centre, and others like it, had its origins in the Psychotechnic Bureaux, which were established in the pre-war period at the various Institutes for Industrial Medicine. The Bureaux, which were closed in the post-war period, were the inspiration for the foundation of Centres for Work Psychology in 1951, which aimed at the prevention of accidents on the workplace and were equipped with psychotechnics laboratories to examine and strengthen specific professional aptitudes. At the 9th International Congress of Psychotechnics, held in Paris in 1953, L. Palma, the general secretary of the E.N.P.I., identified their objectives as vocational guidance and selection and highlighted three areas: personnel training, choice of tests, and job specifications (Palma, 1954). In 1951 Marzi had already provided definitions: if the word *selection* signified “the choice of the individuals most suited to a job,” *vocational guidance* meant “finding the job most suited to an individual,” and *educational guidance* meant “information about the most suitable kind of school” (Marzi, 1951b, p. 10). This paper from 1951 is important because it shows how the world of work in Italy in the 1950s was influenced by American behaviourism, which equated scientific research with the quantification of observed phenomena. “This psychological current – he declared – has had the merit of convincing those studying psychological questions of the need for observation and experiment. At this time [...] the research methods promoted by the new school are applied even by its opponents as an integration of the introspective observations and of the psychological investigations by psychoanalytical procedures” (Marzi, 1951c, pp. 2014–2015).

Marzi undoubtedly knew Freud’s work very well, but the highly practical demands of the social field obliged him to concentrate on other things. Thus, his studies covered a range of subjects from furniture in the workplace to elements of social psychology, and in fact he always promoted cooperation

between psychology and other subjects. Taking up an old idea he had voiced in 1939 about the lack of success of social psychology in Italy (Marzi, 1939, p. 376), in 1953 Marzi reaffirmed that: "The end of Taylorism seemed to be a kind of folding in of the technician on himself, on account of his being unacquainted with the importance of the human factor [...]. It is obvious, then, that people today are eager to demonstrate what contributions the human sciences have made [...] to the evaluation of human factor" (Marzi, 1953a, p. 35).

Consequently, a series of activities developed in other areas of psychology, from juvenile delinquency (Marzi, 1950) to education (Marzi, 1953b, 1955a) and educational filmology, from clinical psychology (Marzi, 1952b, 1955b; Marzi, Teodori, 1952; 1955) to developmental psychology (Marzi, 1951d, 1955c), were conducted by Marzi and his collaborators (Lidia De Rita, Nicola Portoghese, Beatrice Leddomade, Amleto Bassi, Giovanni B. Guarini, Giuseppe Sabatelli, Iole Dell'Aglio, etc.).

3. The staff of the Institute

The volume *Studi e ricerche di psicologia 1950-1955* [*Studies and Research in Psychology 1950-1955*], edited by the Institute of Psychology, collected the work of the staff. In introducing this, Marzi recalled that it was the sixth volume in a collection of which the first three books had been published in the 1920s in Florence by F. De Sarlo and E. Bonaventura. The other two were published in 1947 and 1949 by Marzi himself (Marzi, 1955d).

The staff of the Institute were responsible for observing juveniles in the centres of the Ministry of Justice in Apulia and for diagnosing their "rehabilitability." In addition, they studied the personalities of minors brought before the Courts or of those undergoing reeducation in collaboration with the teachers and social workers operating in the various reeducation centres.

As far as educational psychology was concerned, the staff carried out subsequent screening procedures in the primary schools in the cities of Bari and Matera in order to detect the presence of abnormal cases and to promote the creation of special classes for less gifted children (Dell'Aglio, 1955; De Rita, 1955a, 1955b). To this end, a College for the Training of Teachers of Educationally Subnormal Children was founded in the Institute, alongside an Orthophrenic School directed by Marzi himself, who had Leddomade as his secretary, and a Centre for Vocational Guidance.

As for social psychology, two special lines of research were followed. The first regarded investigations into rural communities in Apulia and Lucania, which were undertaken for two different purposes: 1. to organize a scientific approach to the task of educating illiterate adults and to the social welfare work carried out in the new centres established by the Land Reform; 2. to study the types of social relationships existing in the same communities in order to provide the necessary psychological and social data regarding those

individuals who intended to construct new villages and to reorganize the old ones (De Rita, 1955c, 1955d). The aim was to carry out large-scale research on farmers' personalities so as to obtain sufficient and useful data as a basis for the social and educational activity to be undertaken in the depressed areas.

The second line concerned research into the influence of newspapers on readers' preferences (Sabatelli, 1955).

On 1 November 1955 Marzi left Bari and went back to the University of Florence, where he continued working until 1983.

NOTE

- 1 It was an instrument invented by W. Moede. Based on hand coordination, it allowed psychological phenomena such as reasoning, attention, and emotiveness to be studied.

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Rino Finamore, Maria Sinatra***

1. Introduction

In 1922, during the 3rd Congress of Applied Psychology held in Milan, Jean-Maurice Lahy recalled that cinema “has emerged recently as a practical means of carrying out vocational guidance. However – he added – nobody has tried to define exactly the role of cinema, its method of use, or the filming techniques to be used” (Lahy, 1998, p. 92). Thus, Lahy introduced Italian psychologists to the question of educational films, which had already begun to appear abroad. The topic was not, however, completely new to Italy: in the critical statements on the paper presented by Lahy’s wife, Marie Hollebecque (Lahy-Hollebecque, 1998), the director of the Institute for the Education of Deaf and Dumb Children in Milan, Giulio Ferreri, pointed out that “cinematography [...] has been used for some time in Italy by the «Minerva» institutions in Rome and by the National Institute for Educational Luminous Projections in Milan. The same initiative has been ongoing for 15 years in Turin” (Ferreri, 1998). Hollebecque concluded her paper by expressing the wish that a movement for international teaching by film might be set up; the location for its annual meetings could be Italy.

2. Italian Educational Films

A significant essay had in fact been published in Italy, in 1914, by the director of the “Minerva” Institute, Francesco Orestano. In affirming the usefulness of cinema in schools, he explained that the film method could completely satisfy the three postulates required by the positivistic direction of teaching at that time, which adopted scientific procedures, and assumed facts as the only possible objects of knowledge. They were: “1. *intuition*, direct and immediate relationship between subject and object; 2. *observation and experimentation*,

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which include the condition that the experiments can be repeated both in identical situations, and where possible, also with variations; 3. genetic-developmental investigation into certain processes" (Orestano, 1914, p. 5). Moreover, it guaranteed the following advantages: by using it,

we are able to concentrate on the particular aspect that we wish to study, in this way intensifying the focus on that aspect alone [...]; motion picture viewing does not require any effort other than focusing the attention [...], is far more rapid than any other form of inspection, and saves considerable mental effort [...], can be repeated hundreds of times as required, totally, or partially [...], and can collect and assemble in the same group the images of objects and phenomena which are remote from one another both in time and distance, a fact that is extremely helpful for any comparisons, any work for analysis or synthesis, for more accurate and efficient identification of contrasts, similarities, analogies, etc. (ibid. pp. 6-7).

In the 1940s Orestano's pedagogical premises were adopted by Hollebecque-Lahy, who taught pedagogy at the University of Paris and in 1945 edited the quarterly of the Comité Français du Cinéma pour la Jeunesse, which published reviews of films. According to her, as the two conditions required by pedagogy, i.e. direct observation and exercise, were difficult to be accomplished because they required the presence of pupils in workshops and involved their missing lessons, "the discovery of cinema produces a precious and almost unlimited contribution to teaching. Through moving images, pupils will be in the presence of objects which they cannot see directly and transported into the environments in which they cannot enter" (Lahy-Hollebecque, 1998, p. 186).

It was in the same year, 1914, that Ponzo published an essay on the educational value of films and their introduction into classrooms (Ponzo, 1914). This interest in cinematography lasted his entire academic career, starting from his 1911 investigations into associative phenomena occurring in the perception of movies (Ponzo, 1911), and continuing to 1947, when he took on the direction of the Committee for Educational Films of the National Research Centre (C.N.R.). During the 1949 Congress of Applied Psychology, Maria Lanz-Stuparich, a PhD student at the University of Rome, presented the findings of her analysis of the relationship between the cinema and adolescents, and suggested that it might be useful to select film-goers according to their age; her investigations, she added, were a follow-up to the collective survey carried out by Ponzo (Lanz-Stuparich, 1998, p. 557). Ponzo then broadened his own survey in order to show how films could also serve as a tool for research into the accuracy and validity of young people's statements, and how a study of the personality, social surroundings and past experience of young people was essential if the reactions they reported were to be correctly understood and evaluated (Ponzo, 1952).

Ponzo's 1914 essay provided useful information about what had already been done with educational films in schools and for "the masses." An example

of this latter type of film was the initiative taken in 1909 by Domenico Orano, who showed films in the Testaccio Popular Recreation Centre in Rome in order to improve the moral education of young people.

Ponzo also provided information about the situation abroad. In Berlin, Friedrich Werder had introduced the cinematographic teaching of geography and zoology; in England this type of teaching was used for a number of disciplines and was used in both schools and factories. Some catalogues were already available, such as that produced by “Gesellschaft für Verbreitung von Volksbildung,” the first German “strict organization,” as Kalbus defined it in 1922 (Kalbus, 1922, p. 10).

Particular motion-picture projectors were built in order to make the use of educational films easier and less expensive. In 1903 the German Aktiengesellschaft für Camera-Fabrikation Heinrich Ernemann, which had been founded in 1897/98 in Dresden, launched the marketing of its ‘Kino’ camera for 17.5 mm film, a handy movie camera designed for amateur use and taken up in science and education, as well as in the making of ‘pikante’ films. As its use in schools was concerned, the light source was an incandescent lamp which generated very little heat and permitted the fixed projection of single images from the film. The lamp required only a 0.8 Amp current with an 8-10 voltage.

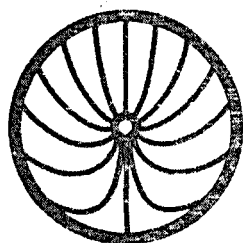
The problem – Ponzo underlined – was the association of the movement of images with the perception of words and sounds. However, he considered this question less important when school children were the audience. The *real* problem concerned the excessive attention required by movies and the high speed of images: according to some educationalists, those two factors made it impossible for individuals, especially children to fix images in their minds.

The topic of the memorization of images was familiar ground to Ponzo, who had explained in 1911 that cinema-goers take part in the film with all those associative processes related to their previous experiences and fill in any blanks in the film – i.e. in the transitions between the end of one shot and the beginning of the next – thus creating an accentuated reality (Ponzo, 1911).

3. The persistence of vision: an outline

In fact in film, scenes and events are perceived as continuous even though they are presented from multiple viewpoints that change instantaneously as a result of editing. This illusion was and is still referred to as *continuity* and explained as an effect known as *persistence of vision*, whereby the eye retains a visual image for a fraction of a second after the source has been removed. This phenomenon, which was studied in-depth in the 1910s by Max Wertheimer, has a longer history, which might be considered to date back to the 4th century BC when, in his *Myth of the Cave*, Plato described a dark chamber with animated shadows projected onto one of its walls, and Aristotle observed

that sunlight shining through the small gaps between the leaves of a tree always projected a circular illumination onto the ground, whatever the shape of the interstices (i.e., the principle of the stenopo or pin-hole). He also stated that air could darken certain substances (a hypothesis disproved in the 17th century - they are darkened by light, not by air). In the 2nd century AD, Claudius Ptolomeus mentioned the phenomenon of the persistence of images, i.e. the Phi Effect. Later, Al Hazan experimented on the persistence of images, Leonardo da Vinci on the camera obscura, and Giovanni della Porta built portable dark chambers as an aid to draughtsmen. Magic lanterns, Chinese theatres, phantasmagories and many optical others devices spread in the following centuries, demonstrating that the rapid succession of two images forming a sequence gave a rudimentary impression of movement.



Roget's wheel

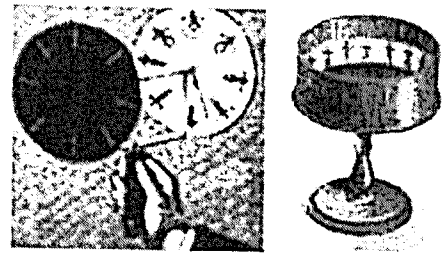
However, according to film historians such as Ramsaye (1926) and Knight (1957), who attributed its discovery to the physician Peter Mark Roget and his 1824 essay entitled (depending on which of the two you believed) either *On the Persistence of Vision with Regard to Human Motion* or *Persistence of Vision with regard to Moving Objects*. In actual fact, both citations were erroneous: Roget's paper, which he presented to the London Royal Society in December 1824, was entitled *Explanation of an Optical Deception in the Appearance of the Spokes of a Wheel Seen Through Vertical Apertures* (Roget, 1825). In this, he reported that if a revolving wheel is viewed through a series of vertical slits, "the spokes of the wheel, instead of appearing straight, as they would naturally do if no bars intervened, seem to have a considerable degree of curvature" (ibid., p. 135). While the lateral movement of the wheel was seen, its rotation appeared to cease, the curved spokes seeming to be frozen in an unchanging position. Roget explained that the spokes of the wheel, passing behind the grating (fig. 1), "leave in the eye the trace of a continuous curved line, and the spokes appear to be curved." He compared the phenomenon to the illusion that occurs when a bright object is wheeled rapidly round in a circle, giving rise to the appearance of a line of light throughout the whole circumference: in other words, an impression made by a pencil of rays on the retina, if sufficiently vivid, will remain for a certain time after the cause has ceased.

As the illusion Roget had examined was not an illusion of apparent motion, but an illusion in which a wheel in real motion appeared to stand still, other film historians have credited the Belgian physician Joseph Plateau with the discovery of the persistence of vision (cf. Sadoul, 1948, Vol. I, p. 25).

In the early 1830s Talbot's law - according to which when the illumination of a visual field is interrupted with sufficiently high frequency, it appears to the human eye as continuous - had served to define those kinetic aspects of the visual mechanism which were responsible for its validity.

It was around this same time that Plateau invented the "phenakistiscope"

(fig. 2), an instrument by means of which successive, slightly differing pictures on a revolving disc, when viewed through a vertical slit, produced an illusion of continuous motion. The principle underlying the illusion had already been articulated in 1829 (Plateau, 1829): “if several objects, progressively different in form and position, are presented to the eye for very short intervals and sufficiently close together, the impressions they make upon the retina will join together without being confused, and one will believe he is seeing a single object gradually changing form and position” (Plateau, 1832, pp. 367-368).



The phenakistiscope was followed by other mechanisms for producing two-dimensional drawings in motion such as the mutoscope, praxinoscope and zoetrope (Carpenter, 1868), which were offshoots of simple optical devices displaying sequences of still pictures at sufficient speed for the images on the pictures to appear to be moving.

Plateau's notion of retinal fusion also attracted the attention of many physiologists/psychologists, from Jan Purkinje to Hermann von Helmholtz and Sigmund Exner, from William James to G. Stanley Hall, Ernst Mach, Wilhelm Wundt, Friedrich Schumann, and others. For example, William Stern's 1894 theory on motion perception was based on the main principle according to which it occurs when the eyes are held stationary: a positive after-image from the first flash of a two-flash display is still present at the second flash (Stern, 1894). Some time later, Karl Marbe explained apparent motion perception by linking it to the fusion (*Verschmelzung*) of successive periodic retinal excitations and by affirming that there is a certain minimal rate of succession of discrete stimuli below which movement will not be seen (Marbe, 1894, 1898). Ernst Dürr assumed the same position: motion perception was still understood as a peripheral, i.e. retinal phenomenon and as a fusion of after-images, but with the addition of a “dependence upon shifts in fixation,” that is, upon eye movement (Dürr, 1900).

Marbe's lectures and Exner and Schumann's experiments (Exner, 1875; Schumann, 1900a, 1900b, 1902, 1904) aroused Wertheimer's interest in apparent movement during his student years. In 1912, in his *Experimentelle Studien über das Sehen von Bewegung* [Experimental Studies on the Seeing of Motion] – the classic work on apparent motion, cited as the founding work of Gestalt Psychology – in a series of experiments using variations on the two-element display, Wertheimer isolated what he considered three primary stages of apparent motion: (1) beta movement (the object at A seen as moving across the intervening space to position B); (2) partial movement (each object seen moving a short distance); (3) phi movement (objectless or pure motion) (Wertheimer, 1912). Wertheimer attached theoretical importance to the *phi phenomenon* as a sensory configuration that had more in it than was present in the series of stimuli. A relatively simple apparatus showed this: either a sliding

screen or a rotating tachistoscope served to present successive views of a line in different positions. He varied the experiment in many ways, finding that the duration of the blank interval was an important factor in the effect and concluding that the explanation of the illusion of motion was to be found in the processes which "which lie behind the retina," i.e. in a central fusion process rather than in a peripheral fusion of stimuli, a thesis already formulated by his teacher Exner in opposition to that of Mach, Marbe and Schumann, and shared in the 1940s by Frederick A. Talbot, in his *Moving Pictures: How They Are Made and Worked*. Three years later, in 1915, the so-called Korte's laws indicated the factors which made it difficult to perceive the succession: a. short time interval between the two exposures; b. long space between the two positions; c. low intensity of illumination (Korte, 1915).

The mismatch between the psychologically perceived continuity and the spatio-temporally discontinuous nature of the visual information was noted in 1916 by Hugo Münsterberg. He felt that the routine explanation of the appearance of motion through the after-image theory – the after-images were responsible for the fact that no interruptions were noticeable, while the movement itself resulted simply from the passing of one position into another – was too simplistic. Münsterberg conjectured that there was a central "filling-in" or impletion process: In the traditional two-element display the two stimuli were perceived at different locations at different times, and the observer's mind filled in the gap, i.e. movement was "not seen from without, but [was] superadded, by the action of the mind" (Munsterberg, 1916, pp. 25-29). In this context, the functionality of some procedures typical of the cinema, such as the *close up* and the *cut-back* (flash-back) can be understood. In order to verify this, he planned a series of systematic experimentations on the nature of the higher central processes. Unfortunately, he died before these could be carried out.

4. Marzi's view

Marzi agreed with Ponzo's interpretation of perception as a dynamic unity, whose roots can be found in the Wundtian concept of "creative synthesis" and in the Kiesowian idea of "fusion," that was then – as we have seen – a generalized notion applied to the illusion of motion. In the early 1960s, in identifying the psychological currents according to which films could be interpreted, Marzi added psychoanalysis to psychology of perception (Marzi, 1961). In this he was inspired by Musatti and, before him, by Michotte. Michotte saw perception as the result of both a well-defined perceptual organization and the data of acquired experience (Michotte, 1948), i.e. of a luggage of forgotten knowledge, the subconscious marks of which determined the attitude towards an emerging perceptual state, a state of happiness, surprise, uneasiness, etc. A similar opinion was expressed by Musatti. On the basis of dream analyses, he pointed out how numerous film characters and scenes, and

sometimes whole film sequences, were “stocked” in the subconscious, and that desires and fears present in the subconscious could influence the emotional experience of film. Consequently, identification with film characters could take the form of consolation, jealousy or sympathy (Musatti, 1953). Thus, the particular state derived from the vision of films – Marzi argued – was similar to oneiric activity, with the difference that with the former the individual was more directly involved (Marzi, 1952; Marzi, Canestrari, 1952, 1953).

So it was that Marzi opened the “Cineteca A. Ponzio” with films bought from various film producers, such as the Institut für den Wissenschaftlichen Film, New York University Film, Pennsylvania State University, S.P.E.S. Catalucci, etc.

In September 1952, in Bari, he organized the National Conference on the Function of Film on the Education of Young Workers.

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Good News and Bad News: a Pilot Research Project at the University of Bari

(Part 3)

Nicola Curci*

There are already large and growing bodies of work suggesting asymmetry in responses to negative vs positive news. Among them is an article entitled *Why We Love Bad News*, which appeared in 2003 in the review *Psychology Today*. Its author, Hara Estroff Marano, a journalist and editor of the review, expressed the opinion that negative news has a stronger impact than positive news on the human mind, thus confirming the asymmetry.

Experimental details of how this *brain bias* impacts emotions and why it exists were given in the same period by the neuroscientist John T. Cacioppo, who explored the brain's reactions to positive, negative or neutral images, and found that the brain shows the greatest surge in electrical activity when attending to bad news (Ito et al., 1998). In other words, the human brain has a "negative bias," in the sense that bad news carries more weight than good news.

No wonder then that, together with the development of a new type of society – a society characterised by interaction and communication (Wiberg, 2004), and in which, as McLuhan observed, "the medium is the message," or in other words the packaging of a message can often be more important than the content of the message itself (McLuhan, Fiore, 1964, pp. 8-9, 26-41) – and easier access to information, a new discipline has recently emerged: *opinion mining* or *sentiment analysis*. Basically, access to information has opened up access to emotional response to information. Among the various definitions of this which have already been attempted in the literature, in order to answer the question "Can facts express opinion?," it is worth recalling the postulation that an opinion mining system is able to process a set of search results for a given item, to generate a list of product attributes (quality, features, etc.) and to aggregate opinions about each of them (poor, mixed, good). Opinion mining aims therefore to extract and analyse judgements on various aspects of given products (Dave et al., 2003).

Surprisingly, a similar type of research had already been carried out in 1954 by Giuseppe Sabatelli, one of Alberto Marzi's assistants at the University

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of Bari; Sabatelli was probably influenced by the two-step flow communication hypothesized in 1944 by Lazarsfeld, Berelson and Gaudet. According to this theory, the mass media (radio and the press) had relatively minor direct effects on how people voted in the 1940 presidential election in the United States. People decided how to vote largely on the basis of interpersonal communication with peers (Lazarsfeld, Berelson & Gaudet, 1944). During the 10th Congress of the Italian Psychologists held in Chianciano Terme Sabatelli presented a paper, *Contributo allo studio dell'atteggiamento dei lettori nei confronti delle notizie di cronaca bianca e nera* (Sabatelli, 1954), which was an experimental analysis of investigations into readers' attitudes, i.e. feelings, towards good and bad news.

The analysis was carried out on individuals in southern Italy belonging to the following categories: professional people, employees, traders, and farmers. They had to answer a questionnaire made up of twenty items. In contrast with what emerges from present-day studies, the data showed a preference among the first three categories for good news and for bad news involving no mention of crime. The farmers showed no preference, perhaps – the author surmised – on account of their great need for information, and because their mentality was less conditioned by traditional prejudices against bad news.

Although Sabatelli's analysis does not provide a valid explanation for the dynamics and the interrelations of these psychological states, because it was based on such a small sample of the population, the contrast between his findings (from the early-to-mid twentieth century) and those obtained at the beginning of the 21st century would confirm what is generally held to be true in the social field: people react to both facts and attitude to facts according to social norms. While society is changing, norms are changing with it, and world attitude shapes new norms, under which societies change further. Numerous examples of facts on which society's opinion has changed over time could be mentioned: for instance, farmers' need for information is now greatly reduced as a result of the spread of mass media. The mid-20th century discovery of this need for information is confirmed by other data.

It would be extremely interesting to obtain further comparative data on readers' attitudes expressed in different periods: trends could be predicted and appropriate measures taken.

An empirical study carried out at the end of the 1950s by another assistant in the Psychological Institute of the University of Bari, Lidia De Rita, who would subsequently become Professor of Psychology, focused on the relation between the various forms of TV and the various types of farmers, and – more specifically – to what extent the persuasiveness of this new medium was responsible for structuring people's daily lives and routines (De Rita, 1964).

The material referred to 70 families of farmers in southern Italy; they were all from the same area and therefore homogeneous from a cultural point of view. The individuals were interviewed on the frequency and the choice of television programmes, the preferred time and day for viewing, and were

observed systematically over an extended period, *à la Piaget* – De Rita underlined (ibid., pp. 20–21) – of 8 months, since, on account of their speaking somewhat linguistically impoverished dialect and being little inclined to introspection, they were not easily interpretable. The older members of the families were, in fact, almost completely illiterate, while the younger members had only primary school education. None of them was therefore able to understand perfectly the items of a questionnaire.

A television set had been given to the families by the president of the Ente Riforma (Office of Reform) and put in a room called “the Cinema.” Each viewer had to pay a small sum (10 lira): in this way, his interest could be better monitored and evaluated.

Carosello, an advertising transmission, was the best-liked programme. The reason, as it was explained, lay in the fact that it provided “knowledge of so many things,” i.e. it supplied information about products which could be useful for housework or farming, etc., even though the viewers did not sufficient money to buy them (ibid., pp. 85–86). This preference would confirm the theories of the Frankfurt School, which held that media was a cultural industry that created an impact on passive individuals, who merely absorbed any information they were exposed to (Horkheimer, 1947).

Information was again the key to the most frequently given second choice: television news. This was second (rather than first) owing to the need for advance familiarity with – for example – politicians or geographical places, etc.

Familiarity – knowledge of songs, which were the staple contents – also lay behind the preference for certain variety shows such as *Il Musichiere*. Drama attracted few viewers because of the difficult language used in it, and because of their length.

The conclusion of De Rita’s research was that TV was designed to provide entertainment and emotional release – since, “especially in winter, people have time to waste” (ibid., p. 89) – and as a means of generating information. Good or bad news, scenes of emotional violence or aggression had no impact upon viewers, thus confirming the theory that a deprived society tends to focus on primary needs.

The importance of investigations in social milieux such as these is strikingly clear. Viewers’ choices of TV news items and programmes throw considerable light on the sector of society to which they belong. It is significant that attention to the media increases only when a reporter focuses on victims of famine or persecution!

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Diary of a Japanese psychologist in Europe before WWII: Travel records of Hiroshi Chiwa from 1933–1935

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1. Introduction: Two patterns of studying abroad

After Wilhelm Wundt (1832–1920) opened the psychological laboratory at Leipzig University in 1879, many foreign scholars visited German universities such as Leipzig. G. Stanley Hall (1844–1924), one of the founders of American psychology, studied physiology and psychology at Leipzig during the 1879 winter semester through the 1880 summer term (Bringmann, Bringmann, 1980). By the end of the nineteenth century, other American psychologists such as James McKeen Cattell (1860–1944), Edward W. Scripture (1864–1945), and Lightner Witmer (1867–1956) had studied and obtained a PhD at one of the German universities (Geuter, 1987).

Also around that time, a dozen Japanese psychologists and philosophers studied psychology in foreign countries. Yujiro Motora (1858–1912) was the first psychologist in Japan to obtain a PhD at John Hopkins University under G. S. Hall, which he accomplished in 1888. After returning to Japan, Motora lectured in psychophysics at Tokyo Imperial University, educating many young students who would become the first generation of psychologists in Japan. Among them, Matataro Matsumoto (1865–1943) followed up his studies under Motora by traveling to the US in 1896 and conducting experiments on acoustics under the direction of E. W. Scripture at Yale University in pursuit of a PhD. In 1898, while still in the program at Yale, Matsumoto received a national scholarship to continue his studies abroad in Germany. His itinerary included not only Leipzig (from 1898 to 1900) but forays to England, France, Switzerland, and Greece. Since this was in the midst of his doctoral research, it necessitated his crossing the Atlantic Ocean twice within those two years (Matsumoto, 2002). Matsumoto was granted his PhD in 1899.

Two general patterns emerged for Japanese students studying abroad: *ryugaku* and *yuhgaku*. The former literally means “to study staying in few places,” while the latter translates “to study changing from place to place”

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(Takasuna et al., 2000). Thus, because *ryugaku* scholars like Motora typically studied longer at one place, they often received an academic degree from a foreign university. In contrast, *yuhgaku* scholars like Matsumoto used their funding to visit many countries and universities to reap the most varied information. Since it cost much more to conduct *yuhgaku*-type travel, students like Matsumoto received a national scholarship from the Japanese government specially awarded for study abroad.

Because most Japanese psychologists studying abroad before World War II followed the *yuhgaku* pattern, it was difficult to identify what places they actually studied. However, from my research, the US and Germany were the two most popular countries. By the end of the 1920s, Japanese psychologists traveling and publishing in psychological journals wrote many letters and reports depicting the status quo of various psychological laboratories in foreign countries. Yet by the 1930s, such published reports in journals lost popularity, despite that Japanese psychologists were still visiting foreign countries, especially Europe.

While most psychologists following the *yuhgaku* pattern left only limited records of their trip, Hiroshi Chiwa (1891-1978) chronicled his observations in 13 small notebooks during his stay in Europe from 1933 to 1935. Here I present a progress report detailing some of his sojourns. This remains a work in progress because between Chiwa's unique handwriting and some scattered pages and pages lacking numbers and dates, deciphering the words and chronology of events has presented a considerable challenge.

2. Biography of Hiroshi Chiwa

Chiwa was born in Okayama on June 29, 1891. He graduated from Tokyo Imperial University in 1916, which included a graduation thesis entitled *Fatigue and exercise in mental work* carried out under the direction of Professor Matsumoto. In 1926, Chiwa became an associate professor of psychology at his alma mater, the same year, Matsumoto retired, and Yoshizo Kuwada (1882-1967) replaced him as full professor of psychology. In 1933, Chiwa traveled to Europe to augment his knowledge. It was typical for faculty members of imperial universities in Japan to study abroad for two years before being appointed a full professor. These government-financed sojourns were aimed at encouraging professors to visit many institutes and laboratories to glean the newest information, thus falling into a typical *yuhgaku* pattern.

When Chiwa returned to Japan in 1943, he was elevated to full professor of psychology at Tokyo Imperial University. In 1952, he retired from the University of Tokyo (renamed from Tokyo Imperial University in 1949) and became a professor of psychology at Aoyama Gakuin University in Tokyo. He retired from Aoyama Gakuin in 1966 (Ohizumi, 2003).

3. Itinerary of Chiwa's European travels

Below is a rough itinerary reconstructed of Chiwa's travels in Europe based on his notebooks (numbers indicate notebook order followed by main cities visited and dates recorded in brackets):

1. Weimar, Halle, Jena [October 1933]
2. Berlin [November 3, 1933 to January 26, 1934]
3. Berlin [November 10, 1933 to January 25, 1934]
4. Berlin [January 30, 1934 to February 12, 1934]
5. Würzburg [1934]
6. Prague, Vienna, Graz, Budapest [May 1934]
7. Munich, Frankfurt, Bonn, Marburg, Tübingen, Stuttgart, Karlsruhe, Heidelberg, Mannheim [May to July 1934]
8. Würzburg, Frankfurt [July 1934]
9. Dortmund, Düsseldorf, Cologne, Brussels, Louvain, Paris [September 1934]
10. Paris, Geneva, Lausanne, Interlaken, Jungfrau, Zurich, Lugano, Milan, Rome [1934]
11. Munich [October 1934]
12. (presumably Munich) [October 1934]
13. Amsterdam, London, Cambridge, Oxford [December 1934]

Although the scribbled dates were not always discernable, it appears Chiwa boarded a ship from Japan to Europe in August or September 1933. After arriving in Germany, he likely attended the 13th meeting of German Society for Psychology in Leipzig during October 16-19. The first entry of Notebook 1 was presumably written just after the meeting. From the end of October until February (through the winter semester), Chiwa studied at Berlin University. Parts of his notes (from notebooks 2 and 3) were based on psychology lectures given by Wolfgang Köhler (1887-1967) and have already been published (Takasuna, 2000, 2001).

The following May, in 1934, Chiwa traveled through Germany, Czechoslovakia, Austria, and Hungary. During the summer, he stayed in Würzburg where he visited the residence of Karl Marbe (1869-1953), professor of psychology at Würzburg University on June 3. During his excursion through Germany, he met Oswald Kroh (1887-1955) in Munich, Walther Poppelreuter (1886-1939) in Bonn, Erich R. Jaensch (1883-1940) in Marburg, Narziss Ach (1871-1946) in Tübingen at a meeting of the German Society for Psychology, and Fritz Giese (1890-1935) in Stuttgart. In September and October, Chiwa continued his journeys through Germany, Belgium, France, Switzerland, and Italy. He met Albert Michotte (1881-1965) in Louvain, Edouard Claparède (1873-1940) and Jean Piaget (1896-1980) in Geneva, and Mario Ponzo (1882-1960) in Rome. While settling in Munich from the end of October until November, he met Richard Pauli (1886-1951) at the psychological institute and Karl von Frisch (1886-1982) at the zoological institute. From notebooks 11 and 12, Chiwa opined about

Japanese cultures found in Europe, presumably inspired by the visit to Munich.

Before departing Berlin, he was confined for some days to his bed with illness. On December 9, 1934 having apparently recovered, he traveled to the Netherlands where he met Géza Révész (1878-1955) in Amsterdam. He then went to England to meet Charles E. Spearman (1863-1945) at University College in London, but the meeting was not to be due to Spearman's retirement.

Although no log exists thereafter, according to Chiwa's daughters, he went to the US before returning to Japan. As an aside, Chiwa liked novelty and had a passion for photography. When he tried to enter the US in 1935, his camera was confiscated by American inspectors, apparently suspicious of him being a spy, according to his family. His heirs graciously permitted me to view the private photos he took during his travel in Europe, and I remember seeing no photos taken in the US.

Chiwa faced difficulties meeting some psychologists in Germany, since it was in fall of 1933 when he arrived, and many Jewish psychologists had already left their post. According to his notebooks, Chiwa missed meeting Adhemar Gelb (1887-1936) in Halle but, coincidentally, encountered Kurt Lewin (1890-1947) the day Lewin was leaving Germany (Chiwa photographed Lewin on the platform of an unidentified railway station in Berlin).

4. Concluding remarks

Japanese psychologists who went abroad to study psychology in various countries are important to investigate because what the scholars absorbed from their foreign experience impacted what they taught to students once they returned home. Many of these students would be the next generation of psychologists. Chiwa's case was exceptional because he left records of his studies in Germany and observations in psychology at Tokyo Imperial University after his overseas sojourn. Though I have not yet analyzed his class lectures, it is clear from reconstructing Chiwa's records so far sheds light on the history of psychology against the backdrop of life in Japan as well as in Europe during the Nazis era.

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From the father to the son: Models and strategies of “generational transition”

*Giancarlo Tanucci**

1. The Family Enterprise. From the labels

Firms generally come into existence as family firms, for the simple reason that they initially rely on resources from the nearest social environment, the family system. Their subsequent development can thus be considered as a series of derivations from this initial state of affairs, which, in cultural, ethical and functional terms, mirror the family model. The “family firm/non-family firm” dichotomy is therefore too simplistic to explain and interpret the complexity of the phenomenon at both a local and global level. In fact, the components which characterize the “degree of definition” of a family enterprise are multiple and complex. The investigations carried out hitherto highlight certain meaningful characteristics which have become important in recent years in the definition of the status of the family firm.

There is an innate conceptual complexity in the terms referring to family businesses. The expressions and labels used in the literature highlight and underline a number of aspects of their distinctiveness:

FOB: Family-Owned Business (Griffeth et al., 2006);

FCB: Family Controlled Business (Miller, Le Breton-Miller, 2005);

FF or FE: Family Firm/Family Enterprise (Cabrera-Suarez, 2005).

Along with Neubauer and Lank (1998), we can affirm that the distinguishing features of a family enterprise are: ownership and management considered as the implicit or explicit conception of the strategies and means of exercising the functions of influence and control. At the basis of this conception lies the dual nature of the family enterprise, which consists of two distinct and differently modelled subsystems: the family and the business, which define themselves in terms of mission, strategies and peculiar (and sometimes divergent) goals (Churchill, Hatten, 1987). Referring to this dual nature, Astrachan and Shanker (2003) depict the family firm as a system where the family has influence over strategy and major policies, and intends to keep control over the business,

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and where multiple generations are involved in daily operations and have significant management responsibilities.

There are three levels to consider here: the first concerns the power of the family in terms of governance and operative management; the second is participation, in terms of the number of family members involved, and the last is the level of commitment to the system of values underlying the owner-family's culture.

This approach represents a break with the traditional model of analysis, which sees the family firm as diametrically opposed to the non-family firm. In other words, the new perspective proposes a different conceptualization based on a complex interaction of those factors which connote the identity of an enterprise as a specific entity defined by the characteristics of the "actors," the peculiarities of the context, and historical and cultural connotations. In fact, investigations in this field underline the difficulty in identifying salient distinctive traits on account of the complexity of the "objects" of study: ownership, management, stakeholders, etc. (Sharma, 2004).

However, direct comparison makes it possible to distinguish certain elements of diversification as regards the type of entrepreneurial activities, business performance, the perception of opportunities/threats represented by the environment, etc. As far as other aspects are concerned – for example, strategic orientation and means of access to financing, etc. – the differences tend to disappear (Sharma, 2004). Nonetheless, on the basis of empirically validated data, researchers seem to agree with the assumption that the model of an efficient family firm depends on an ability to deal with the overlapping between family and firm, rather than on the peculiarity and specificity of processes and distinctive resources. The overlapping can be seen, on the one hand, as a consequence of the simultaneous development of family functionality and the profitability of the firm and, on the other hand, as deriving from a system of obligations and relationships connected to the sense of belonging (Aldrich, Cliff, 2003; Chrisman et al., 2003). After all, this is what distinguishes (Astrachan, 2003; Dyer, 2003; Habbershon et al., 2003) family firms from non-family firms; this diversity can be translated into a specific configuration of the system which affects the governance mechanisms on which the survival and the success of firm are founded (Cabrera-Suarez, 2005).

The proposed model considers the factors which govern the dynamics of relations, communication, interconnection and organization between the family system and the entrepreneurial system and the business which emerges. In other words, a more accurate and detailed interpretation of the phenomenon makes it possible to consider the results not only as a company outcome (economic results, productivity, innovation, etc.), but also as the outcome and aim of the family system (capitalization, benefits, power positions, security, and social status, etc.). Thus, business represents the two facets of the overlapping between family and enterprise which arises out of a more detailed analysis of the latter in terms of: a. the enterprise system understood as an

organizational dimension, as a power and control set up; b. business understood as guidance to outcomes.

The implications involved in the family system are relevant because they highlight a different connotation of the values and cultural orientations of the members of its nucleus and of those who share interests of propriety and outcome. Corbetta's (2005a) distinction between firms aiming to maintain their image and standards, and those aiming for immediate outcomes adequately represents the impact of the family value system that determines the management models and the operative strategies of the firm.

In other words, there is a convergence of objectives which can be considered an adequate integration of the two systems and determines the survival and the success of the family firm in an economic, social and entrepreneurial context which is competitive, complex and global.

Consequently, the success of a family firm can be defined in specific terms: the performance of the family firm in both affects and affairs is the distinguishing criterion for the evaluation of success. The real success of a family firm is measured in terms of convergence of the evaluations of the different stakeholders who are concerned directly/indirectly with the realization of institutional aims (Davis, Tagiuri, 1989; Sharma, 2004). An important contribution can be found in the studies of the representation of success of a family firm for all stakeholders (Astrachan, McMillan, 2003). The alignment of the perspectives of success is one of the factors which predict the performance of the family firm, as it facilitates the convergence of all efforts and interests towards a common and shared aim.

The importance of the alignments and convergences leads to the identification of a series of clusters of family firms defined in terms of success in "business" and "affects." Sharne (2004) proposes a model of characterization of performance consisting of four typologies:

- "warm heart - full pocket," characterized by high "capitalization" of the financial and socio-emotional components in which the overlap between family and firm is profitable and functional to the shared aims;
- "sad heart - full pocket," characterized by high performance in terms of the productive-financial results and by crisis and loss of harmony in the relationships within the family system;
- "warm heart - empty pocket" denotes a stable approach to the management of relationships in the family partnership in the face of entrepreneurial difficulties, though the relationships cannot be entirely immune from inevitable internal damage;
- "sad heart - empty pocket" identifies a situation close to dissolution as the components of the success of a family firm are no longer compatible and congruous with the survival of the enterprise.

In short, this model is a useful way of characterizing the success/failure of the family firm, even if the literature suggests it is necessary to analyse the role of other strategies in order to understand the functioning and the functionality of an enterprise managed by a family system, variables which are

connected to the dynamics of power, to the models of governance and management, to the family cultures, to the roles/positions of family members, etc. (Astrachan et al., 2002; Davidsson, 2003; Sharina, 2004).

2. ...to the people involved

The diffusion, longevity and resistance of the family model are a clear sign of the vitality and innovation of the mix of actors involved; the models of the theoretical analysis which are available in the literature highlight the role and incidence of the various reasons for the success of the family enterprise (Sharma, 2004; Miller, Le Breton-Miller, 2005; Corbetta, 2005a).

Sharma's scientific production (2004) makes it possible to give a precise outline of the main levels of interpretation and theoretical analysis of a family-entrepreneurial system: the individual level, the interpersonal/group level, the organizational level.

- a. Individual level. This examines the stakeholder's role in the family-enterprise system. Freeman (1984) defines a stakeholder as "any group or individual that influences or is influenced by the achievement of company goals" (Sharma, 2004, p. 47), and distinguished stakeholder positions (Freeman, 1984) into primary and secondary. Sharma (2001) speaks about "internal-external" polarization: the former are those who have a contractual, property or family relationship, and the latter are those who can exert outside influence upon the survival and the success of a family enterprise (customer, suppliers, unions, etc). The individual level of analysis concerns certain basic types of stakeholder, who, at different levels, can influence the performance of the family enterprise: founders, heirs/successors in the management, and the new emergent stakeholders such as women and collaborators.
- b. Interpersonal/grouping level. This concerns the relations that exist between the family members and the entrepreneurial system. The thematic areas of interest developed by research regard:
 1. the nature and type of contractual relations stipulated among members of the proprietor family;
 2. the origin of conflicts and the relative strategies adopted to deal with these;
 3. the intergenerational transitions that the family system is able to effect in order to ensure succession.

The problem of the management of inter- and intra-family relations is increasingly connected to the survival and the success of this type of business; it is a question of systemic perspective, of focusing not only on the characteristics of individuals, but also on the means and strategies of social interaction among stakeholders (Gomez-Mejia et al., 2002; Schulze et al., 2001).

- c. Organizational level. The focus here is on the system of identification and management of those resources available to the family firm, both at an

explicit and implicit level, and on how capable a family firm is of making the best possible use of the skills, knowledge, and potential that have developed within the family system. Habbershon et al. (1999) suggest the term “familiness” to identify the field in which the members of a family assume a position of influence – be it positive or negative – over the survival and the success of the business. The heuristic model put forward by Habbershon et al. (1999) is important in the analysis of the innovation and transformation processes that evolve in response to changing demands. From an organizational perspective, “familiness” can be a strategic factor of “distinctive competence” or a “coercive obstacle,” in the sense that in the first case it is able to maximize the intergenerational sharing of know-how, experience and specific resources, while in the second case there is a risk of immobilizing the available potential through attempts to ensure stability and maintain old-fashioned models and strategies typical of the “family heredity.” According to this logic, the factors of distinctiveness of the human component in the family firm, according to Sirmon and Hit (2003), concern human resources, social factors, governance structures and the ability to survive/persist. The competitive advantage of the family firm lies in its ability to effectively and consistently manage all those distinctive factors which facilitate integration between the family system and the business system.

3. Conclusions

The remarkable capacity of the traditional model to survive and adapt to ongoing radical changes depends on certain transformational factors: the question of intergenerational succession stands out as a distinctive “marker” of a process of far-reaching innovation in the culture, rituals, socio-affective implications and managerial mechanisms which the family system has to deal with.

The specific points which emerge from various analyses and suggest that the succession process is crucial are, broadly:

- the need for the growth and maturation of the entrepreneurial culture currently prevailing in most small and medium-sized family firms;
- the need to avoid “family reductionism” in the family firm;
- the need to plan the process of “succession” precisely at the time when entrepreneurial and family success seem assured and consolidated.

(Miller, Le Breton-Miller, 2005; Corbetta 2005b).

Research, reflection and interest in debate offer, at both national and international level, encouraging starting points for the exploration of new patterns and models of development for a system which, in spite of predictions to the contrary, continues to function as the main axis of a range of economic-entrepreneurial systems.

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Helena Antipoff: Measuring the Child's Mind

Luigi Tractta*

1. Antipoff's scientific background

"Let us begin by establishing a reassuring and inspiring setting [...] in which every child is able to behave according to his own inclinations and aptitudes. Only then will it be possible via psychological observation to determine the true nature of the child and provide educationalists with genuinely useful information" (Antipoff, 1930a, p. 185). In 1930, shortly after arriving in Belo Horizonte, Helena Antipoff ended an experimental study of Brazilian children: her conclusion that it was necessary to take account of the child's inclinations was the culmination of her professional career.

Helena Antipoff was born on 25 March 1892 in Grodno, a Russian town not far from the Polish border; her father was a colonel in the Tsar's army and her mother was a descendant of a Russian aristocratic family. She received an aristocratic education, learning to speak English, German, and French. At school one of her teachers, a former student of Ivan P. Pavlov, encouraged her to pursue scientific studies. An interest in drama and literature brought her into contact with the growing social movement against the Russian political regime.

Antipoff was heavily affected by both the unstable political situation on the border and the new turbulent cultural atmosphere which Russia was experiencing, as it emerged from the rigid, closed education system of the 19th century (McLeish, 1975, p. 13). It was no coincidence that around this time – Antipoff was 12 – Pavlov received the Nobel Prize in Medicine, thus giving further prestige to Russian science in the world.

The cultural situation Antipoff found in France was very different. In 1908 she moved to Paris with her mother and sisters. She soon entered the Collège de France, attending Henri Bergson's lectures as well as the experimental psychology course held by Pierre Janet. It was under their influence that she took an interest in psychology and began to attend the Laboratory of physiological psychology at the Sorbonne, where she acknowledged Alfred Binet and Théodore Simon's research on mental tests. With Simon she worked in 1911-1912 and attended the meetings of the Société pour l'Étude de

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l'Enfant, founded by Binet before his death in 1911. During her apprenticeship she participated in investigations into the mental development of children in Paris state schools and became acquainted with the techniques used to validate mental tests.

It was also thanks to Binet's work that Antipoff realized how important it was to take account of children's suggestibility in order to avoid the possible distortion of the results of experiments. In many of her works, including those of her later career, her methodological observations on the negative effects of suggestibility appear almost obsessive.

In 1912 she was invited by Édouard Claparède to Geneva. He was the cousin and one of the first students of Théodore Flournoy, who had brought scientific psychology to Switzerland. After attending Wundt's lectures at Leipzig, Flournoy taught psychology and in 1892 opened a laboratory at the University of Geneva. At his death in 1920, Claparède took over his chair and the running of the laboratory. He studied psychical phenomena in terms of their usefulness in meeting the individual's needs and interests. To improve teacher training and to advance the scientific study of children, he established the Jean-Jacques Rousseau Institute, which soon became well-known for the development of progressive teaching methods.

Antipoff attended the Institute and finished her studies there in 1916, graduating in Developmental Psychology under Claparède's guidance and teaching at the *Maison des Petits*, an experimental school founded in November 1913 "to research, to experiment, to highlight psychological truths relative to children's development and to expose a team of educators to these truths" (Audemars, Lafendel, 1950, p. 10). Claparède's 1933 article, *La Gènèse de l'hypothèse*, was dedicated to Antipoff, who had helped him collect the data (Claparède, 1933, p. 19).

In 1916 Antipoff was obliged to return to her homeland because of the health of her father who had been severely wounded in the war. She stayed there until 1924, working in the Laboratory of experimental psychology founded by Alexander Netschajeff in Saint Petersburg. Antipoff was strongly influenced by the Russian Behaviourist sciences of the time, especially as regards the way in which quantitative research might be applied to the psychology of education. The 1920s and 1930s in Russia, moreover, saw a shift (Misiti, 1972, p. XII) from an exclusively materialist psychology to a psychology which also took account of dialectics.

The political situation at that time was complex and she encountered difficulties as a result of her refusal to submit her scientific research for approval by the regime. However, she was able to study in depth the techniques of the Moscow psychiatrist Alexander Lazursky (1874-1917), who was a specialist in mental testing as a result of having worked at the Psychoneurological Institute of St. Petersburg directed by Vladimir Bechterev. Lazursky maintained somewhat unorthodox theoretical views on the psychology of dialectic materialism: in the characterological studies he carried out in the educational field, he insisted on the existence of different innate stages of development in

the child (Massucco Costa, 1963, p. 129) – a view rather too distant from the official Marxist line. Moreover, “Lazursky, Korsakov, and Bekhterev were leading natural scientists who helped to establish experimental psychology in Russia before 1917” (Misiak, Sexton, 1966, p. 267).

Lazursky had a profound influence on Antipoff's future psychological thought because of his *natural experimentation* which involved the observation of children in their natural environment rather than in artificial laboratory conditions (Antipoff, 1926). This technique, together with the Binet-Simon intelligence scale, was used by Antipoff to examine children from the orphanage in Saint Petersburg and to plan their re-education. The centre was opened with the permission of the local police and aimed to take in children reduced to living in the city streets after losing their families because of the war and the revolution. In 1931, after the revolution, Antipoff would speak about this work, which was sponsored by the educational district of St. Petersburg, where she was called *P'édulatrice française* (Antipoff D., 1975, pp. 65-66).

During her stay in St. Petersburg, she met Viktor Yakovlevich Iretsky (1882-1936), a writer and journalist who, while not a political activist, was a supporter of artists' right to freedom. Antipoff married him in 1918. Owing to persecution by the regime, he was forced to move to Germany in exile. Antipoff joined him in Berlin but, after a year, they split up. Once back in Switzerland, where she stayed from 1925 until 1929, she recommenced work with Claparède, as his assistant, and obtained the chair of Child Psychology at the University of Geneva.

2. The psychological works of the young Antipoff

The starting point of this essay is a short article on personality from the perspective of individual psychology (Antipoff, 1926). This article, dedicated to the work and memory of Lasoursky – the transliteration of his name preferred by Antipoff to the more diffuse *Lazursky* or *Lasursky* – is of interest from various points of view.

Firstly, it aimed to spread the Russian psychiatrist's ideas all over Europe, where they were not very well-known at the time. Lazursky, a colleague of V. M. Bechterev at the Psychoneurological Institute of St. Petersburg, had introduced an innovative approach to mental testing called *natural experimentation*. “Desirous of making psychology a more practical science,” wrote Misiak, Lasoursky devised original methods of clinical observation and “natural experiment so that personality could be studied under natural, rather than artificial conditions” (Misiak, Sexton, 1966, p. 267).

Antipoff saw this as significant because it exceeded the aporias related to the two main research methods: observation and experimentation.

As regards observation, Antipoff considered the marked gap between observers and the observed, the many various experimental issues, and the

experimentation time as weak points (Antipoff, 1926, p. 286). She also considered the experimental method invalid because it "requires some sort of conditions in which the subject feels closed in an artificial environment" or because "by decomposing and fractionating [psychological phenomena], it creates false structures and alters the authentic character of individuals" (ibid.; Tractta, 2006).

So, what was the meaning of the natural experimentation invented by Lazursky and taken up again by Antipoff? As it referred to the observation of children in their natural environment and not in artificial laboratory conditions, it involved teachers regularly describing in detail any and every form of pupil behaviour, even the most meaningless. Through analysis of these descriptions, the dominant psychological traits, i.e. the "real nature of personality" emerged (Antipoff, 1926, p. 291). Of these, Antipoff was mainly interested in movement ability – viewed not only from a quantitative perspective, but also from the point of view of coordination and muscular force. Either way, the analysis of motor aptitudes seemed to be essential both in establishing the degree of children's mental retardation and in vocational guidance (Antipoff, 1927a, p. 310).

A different point of view was put forward in 1926 by Léon Walther, one of Antipoff's colleagues at the Geneva Institute and one of Claparède's pupils, who published a paper that would – according to him – provoke a sort of Copernican revolution in the way in which motor aptitudes were related to vocational guidance (Walther, 1926).

Following on from a topic in a work of Claparède's (Claparède, 1924) on the exercises suitable for the development of child motor abilities, Walther put together a team, supervised by Antipoff, the young Richard Meili and himself, to verify the standardization of both the pre-existing psycho-motor tests and those created at the Institute. This validation proved useful in terms of application of the tests to adult workers. Walther's conclusions were highly innovative: workers should be selected not before but after being employed. This was a radical idea! Once they had been taken on, workers would be assessed for individual aptitudes so that they might be assigned the *right place*, thus guaranteeing maximum efficiency and well-being. This approach would soon be further validated in the experiments carried out by Walther himself at a Swiss factory: the use of *technopsychologie* increased the output of workers by about 40% (Walther, 1929).

In constructing his own *technopsychologie*, Walther had used some data obtained by Antipoff, whose job as part of the research team had been to deal with "the correlation between mental and motor aptitudes" (Antipoff, 1927a, p. 310). She thus contributed to the creation of *technopsychologie* and – as Weil suggested (Weil, 1967, pp. 47–59) – possibly found the incentive for her future move to Brazil.

The starting point, as Antipoff declared, is evident in two objectives of the research itself, one of them practical and the other theoretical. The first objective regarded the validation of tests designed to measure manual ability

and foreseen “by psychotechnics for vocational guidance” (Antipoff, 1928a, p. 2); the second consisted in “verifying whether manual ability is correlated with mental ability, whether intelligence and motor aptitudes have a positive or negative correlation, and whether the coefficient of such correlation is high or not” (ibid.).

Paraphrasing her teacher Claparède, Antipoff wondered whether motor aptitudes were a direct consequence of mental development. The answer to this question, one of the most important in psychology, could only come from an experimental approach: the psycho-statistical method supported by a collection of data obtained from a high “number of individuals” (ibid.) was the only way of guaranteeing exact results.

Antipoff was, of course, well aware of the accurate categorization work undertaken by the pedagogue Alice Descoeurdes (1877-1973), one of her colleagues at the Institute Rousseau (Descoeurdes, 1920). In research into child development Antipoff herself had collected detailed information on children aged 2-7 by grouping the subjects in equivalent classes with just 6 months difference. She regretted not having the same opportunity: her categorization concerned a smaller number of subjects in groups with a wider age range and with no gender distinction (Antipoff, 1927a, p. 310).

However, this methodological premise was justified by previous research which she had concluded with few certainties and many questions. In 1921, at the Laboratory of Psychology of St. Petersburg, Antipoff had planned a quite bold application of the Binet-Simon scale to 120 Russian children aged 4-9, in order to compare their mental development with the data she herself had analyzed in 1911 in research on Parisian children of the same age. Even though their intellectual development exceeded that of the French children by an average of about five months, the Russian children had great difficulties in arithmetic. “What was the reason for this strange phenomenon?” Antipoff wondered (Antipoff, 1927b, p. 79). The answer lay in another question: “Did it depend on the fact that, since there was no money at that time in the communist country, children could not practise their arithmetical faculties outside school?” (ibid.).

In 1921, in an attempt to resolve its social and economic problems, the Soviet State decided to adopt the NEP. Paradoxically, however – though partly as a result of the bad harvest – in the same year the situation in Russia deteriorated even further. Antipoff noted how the crisis, at least from an economic point of view, affected the intellectual class much more than the working class. Thus, although her criticism essentially concerned the field of child psychology, at a more profound level it also related to the Russian regime. As she wrote:

In spite of the levelling of the Russian society of that time, the intellectual class lived in conditions that were often worse than those of workers – intellectuals’ children, despite living in poverty and in spite of the lack of the time which was dedicated to them, obtained better

results [tested by Binet-Simon scale] than workers' children. Since the education of these children was always the same, was perhaps such a difference caused by a hereditary factor? (ibid.).

In the implicitly positive answer we can see the profound distance between her positions and how the Soviet State intended to solve the social problems. The regime was inclined to crush individuality, arresting the development of innate talents – a palpable waste! As Rafante and Lopes have underlined (Rafante, Lopes, 2006, p. 4455), for Antipoff character was the result of two forces, one of them was internal, i.e. hereditary, and the other was external, i.e. adaptive. This opinion was elaborated on the basis of the large amount of data which she had obtained in the research carried out with Walther and Meili.

A total of 750 subjects were tested. Of these 557 were 4–17 years old, 125 were described as adults and 34 as “abnormal” (Antipoff, 1928a, p. 7). The experiment involved 7 tests (*pointillage*, *tapping*, *threading beads*, *découpage*, *Walther disks*, *cicle-brodeur* and *dynamometer*) whose validity was guaranteed by checks on their distribution and constancy. Constancy had been already investigated in depth by Claparède (Claparède, 1919), who entrusted Antipoff with the task of studying the matter still further. In a 1927 essay she presented a detailed report of her own experimentation on the subject's constancy which she had carried out in Geneva between February and July 1926 (Antipoff, 1927c).

The starting point was the identification of a minimal coefficient constancy in any aptitude test (ibid., p. 190). Each subject had to repeat the same test at least four times after a week. If the four attempts yielded very different negative results with the consequence that the coefficient constancy was low, the test risked being inapplicable. Antipoff herself regretted having carried out an experiment in 1926 in which, paradoxically, the research conditions were not uniform! She observed how “unfortunate it was that the experiments were not carried out at the same time” for each subject. “Generally, they had been carried out between 9.30 a.m. and 11.00 a.m. and between 2.00 p.m. and 4.00 p.m.” (ibid., p. 178).

The conclusion did not provide any certainties. On the contrary, it seemed to underline the need for further research. “We still need to determine – commented Antipoff – what level of constancy a test should reach in order to be used practically. On the basis of our observations I think that an aptitude test is valid only when it does not involve a variation [...] higher than one tenth of its average” (ibid., p. 190).

Despite these limits, Antipoff's essay contained many points that help us to understand how much her education was influenced by her knowledge of early 20th century European cultural (both philosophical and scientific) thought. For example, her interest in the question of time can be explained against the background of the famous Bergsonian distinction between *mathematical time* and *pure time*.

Bergson, whose lessons Antipoff had attended at the Collège de France,

was not her only theoretical reference point. Willian Stern, the author of the word *psychotechnics* (Sinatra, 1999, p. 96), had elaborated a theory of time by introducing the concept of *psychological time* so that individual actions could be distinguished according to the rapidity and strength of execution (Stern, 1900, p. 115). In turn, Antipoff declared her adhesion to the deductions which Stern had drawn from the concept of psychological time. She wrote: "Together with Stern we immediately thought that we have to distinguish [...] normal or habitual time from maximal time" (Antipoff, 1927c, p. 178).

However, this distinction, when used during experimentation in psychology, presented a further problem, since "most tests are performed in as quick time as possible" (*ibid.*). The question was: could maximal time guarantee a greater constancy in individual actions than habitual time? The answer was to be found in work done by Pierre Janet, another teacher Antipoff had met at the Collège de France. In describing the degrees of mental activity Janet had observed that during the actions done under effort and in maximal time the factors "of novelty, irregularity, and the unexpected" (Janet, 1920, p. 35) determined a great variability of answers. Therefore, neither habitual nor maximal time could guarantee greater constancy *a priori*.

Antipoff also discussed this topic with Otto Lipmann, who was in Geneva when the experimentation was just about to begin. According to her, Lipmann's contribution completed the formulation of the research programme by introducing other experimental approaches: the first concerned the execution of the task *without* effort and the second one *with* minimum effort (Antipoff, 1927c, p. 178).

In conclusion, consistency had to be verified by asking subjects to perform their task in four distinct ways: with maximum effort, with reasonable effort, without any effort at all, with as little effort as possible. The results left no doubts: carrying out a test with maximum effort – maximum effort representing a "psycho-physiological limit, [...] a frontier of arbitrariness" (*ibid.*, p. 180) – ensured the highest level of subject constancy. On the other hand, the values for the test carried out with reasonable effort depended on the subject's will, i.e. on what he intended to do in each test. The tests carried out without any effort depended on the particular emotional state of the subject, who tended sometimes "to let himself/herself go." Finally, using as little effort as possible meant creating an artificial condition that "was at the beginning [of the test] a real torment" (*ibid.*, p. 181); nevertheless, (as regards this final approach) with repetition the subject showed clear improvements. Antipoff saw these results as positive:

The use of these different degrees of activity in our experiments suggests that we can use them for different purposes. We think that the task of maximum effort is suitable in the tests where interest is primarily in quantity; reasonable effort is suitable in qualitative tests; the minimum effort served to investigate exercise capacity [...]; and finally the use of no effort can be used for the variability of mood, of the individual's general mental state (*ibid.*, p. 182).

In the research with Walther and Meili, Antipoff once again returned to her old interest in the pedagogical applications of the studies on psychological and motor functions. The systematic notes, which she always wrote on the individual results in the aptitude tests, had shown how an authentic experimental pedagogy could be established (Campos, 2003, p. 216). Soon after she made the first application of the model of experimental pedagogy in a typical school environment, taking account of the research of Oscar Bustos Aburto (1897-1974). Aburto was a Chilean researcher who had come to Geneva to complete his education in psychology and had later gone back to Chile to become national secretary of the Radical Party and work with the Chilean Minister of Education. At the end of the 1920s he worked with tests of mental development. At the Geneva Rousseau Institute, he had worked on reading, writing, calculation, and orthographic tests, and obtained successful results especially concerning the differences between girls and boys.

In her interpretation of the data collected by Bustos Aburto, Antipoff underlined the need for to differentiate school syllabuses not only according to age but also to sex. This issue was particularly important – she also added – especially when teaching adolescents, i.e. during a highly *critical* age (Antipoff, 1928b). While staying in Geneva, the young Antipoff had experienced the great influence of aptitudes, social environment, mental development, and sexual differences (Antipoff, 1928a, p. 41) on the results of mental tests. However, despite her grounding in Joteyko's and Amar's pioneering works (*ibid.*, p. 42), her interest in *technopsychologie* would fade as a result of her strong need to concentrate on the educational field.

Theoretical research probably did not satisfy her passionate interest in social problems and her involvement in the public institutions (school, orphanages, etc.), both described by those who knew her (Renault, 1981).

The "incursions" within the social field were not in fact new to Antipoff. In 1928 (Antipoff, 1928c) she participated in that "important discussion of pity that took the shape of a 1901 review of an article that had appeared in the *American Journal of Psychology*," and agreed with "the authors' definition of pity" as "a pro-social virtue" (Sánchez 2004, p. 89). Whilst in the 1901 article (Hall, Saunders, 1900), "the authors favoured an evolutionary understanding of pity, based on the cultural transmission of adaptive responses" (Sánchez 2004, p. 101), in her 1928 essay Antipoff demonstrated the correlation between pity and children's sense of justice. In this she was inspired by an event that occurred when her son was still a child. When Daniel was three, he had cried inconsolably on hearing a story about a fox which captured a cockerel thanks to the carelessness of the latter's cat friend. When the story was told differently, with the cat discovering the kidnapping of the cockerel and setting it free after tracking down (and punishing) the fox and its cubs, Daniel showed joy and delight.

Daniel's strong propensity to feelings of pity was confirmed by further events which occurred to him when he was ten, such as the sight of the crucified Christ or the fate of the cockerels in another popular fairy tale.

The novelty lay precisely in the relationship between the feeling of pity and the sense of justice: in all these episodes Daniel showed pity where there was clear injustice, as in the case of the cockerel kidnapped by the fox. Interestingly, the child had no feelings of pity towards the fox's cubs as he believed that they deserved to be punished for the crime committed by their mother.

Antipoff therefore deduced that "the psychic dynamism generated by compassion" led to "lex talionis i.e. primordial moral law" (Antipoff, 1928c, p. 214). Such moral reactions on the part of a child should on the one hand be encouraged and on the other hand gradually developed into appropriate social attitudes.

Her return to Brazil can only be properly understood in the context of her love for nature (Antipoff, 1927d). This passion, which she passed on to her son, was crucial for her future career as "educadora ruralista" (Barreiro, 2007).

The year 1929 witnessed the consolidation of the so-called New School which established new academic syllabuses that focused less on the traditional disciplines and gave greater importance to personality and interdisciplinarity. This movement has been described by M. Ruchat as existing within an imaginary triangle linking Brazil, Switzerland, and France, and involving the "practice of *éducation nouvelle* as a pedagogy of certitudes, but above all as social engagement [...]. The movement flourished between 1929 and 1940. It coincides with the time of [...] Hélène Antipoff's departure to Brazil" (Ruchat, 2004, p. 115).

3. Towards experimental pedagogy

Antipoff arrived in Brazil on August 6, 1929, at a very important time for psychology. Prominent European psychologists, such as Piéron, Claparède, W. Köhler, T. Simon, and L. Walther visited the country to present seminars and install laboratories. Antipoff was welcomed by the psychologist Noemi Silveira and by M. B. Lourenço Filho. Filho was the most important Brazilian psychologist in the first half of the 20th century. Strongly influenced by both Dewey and Claparède, he conducted experiments on habits, developed psychological tests, and was the founder and first director of the National Institute for Educational Study and Research.

For Antipoff, this was therefore the first step of an adventure within the international field of pedagogy where she would play a major role.

Once in Belo Horizonte, she was invited by the Minas Gerais government to teach Educational Psychology at the Teacher Training College which aimed to train educators to apply the methods of the New School and the study of educational psychology to develop a deeper knowledge of local children, through the standardization of IQ tests.

Psycho-pedagogical laboratories for testing students and training educators already existed in Brazil. The first was organized from Paris by the

Brazilian physician Manoel Bomfim under Binet's supervision, and was opened in Rio de Janeiro in 1906 in a pedagogical institute for the study of new educational practices. A second laboratory was set up in a state school in São Paulo in 1914 under the direction of the Italian psychologist Ugo Pizzoli. A further laboratory was established in 1923 in a hospital in Rio de Janeiro (Penna, 1992), along the lines of the laboratories organized in hospitals by Emil Kraepelin, a former student of Wundt's, who intended to apply psychology in the medical field and, to this end, conducted experiments with mental patients (Hearnshaw, 1989). In effect, psychology as a requisite science for psychiatry had been introduced into Brazil at the beginning of the 20th century by Henrique Roxo, who had conducted the first Brazilian experimental research. Equipment was brought from Paris and Leipzig for the laboratory in Rio de Janeiro, which was associated with the International Mental Hygiene Movement and was directed by another former Claparède student at the University of Geneva, the Polish psychologist Waclaw Radecki (1887-1953), who focused the laboratory's work on psychological testing and personnel selection.

In August 1929 Antipoff began teaching students, who were state school graduates already working as school principals or supervisors in the state schools, and realized that more theoretical input was needed in the education of teachers. She set to tackling the problem and began a programme of research to investigate the mental development, ideals, and interests of "small Brazilians" and make comparisons with similar research carried out in Germany, Switzerland, Moscow, and the United States (Antipoff, 1930a, pp. 159-160). The sample, 760 pupils (male and females) all in the final year of elementary school, although their age ranged from 10 to 14 years, was given a questionnaire concerning preferred tasks at home and at school, favourite toys and books, plans for the future, and adult models.

The first findings, published in 1930, revealed "a constant interaction between children's nature and the environment in which they live" (*ibid.*, p. 184). This statement was the conclusion of her observations that Brazilian children lived in a modest family milieu, showed more limited and less diversified trends in comparison with European and North American children, and had fewer daily hours of lessons than the others. Feire has rightly commented that Antipoff's "double soul" is clearly evident here (Campos, 2001, p. 143). While her interest in children's mental development was an obvious consequence of attending the Geneva School, her attention to the cultural differences in their mental processes came from the Soviet historical-cultural approach, particularly Vygotskian social interactionism, which emphasized the influence of environment and social conditions on human development and sought to improve individual mental health by working on social, environmental, and economic conditions.

As a consequence of her basic assumptions, Antipoff pointed out the contradiction in the Active School system which urged the organization of educative work according to children's spontaneous interests. Briefly, the

question was: how could school develop the capacities of pupils' with such limited interests? For her, "many kinds of children" could have found "new reasons for action" only "in an adequate milieu, a harmonious and diversified environment" (Antipoff, 1930a, p. 185).

The above-mentioned essay revealed the confidence that Antipoff had in psychopedagogy: according to her, the disadvantage of the Brazilian children compared to the Germans and Americans of the same age could have been eliminated by a thorough overhaul of the educational system. Brazilian compulsory education, moreover, lasted half the time of that in other countries examined.

Following this topic, Antipoff published in 1931 a second, wider-based study of Belo Horizonte schoolchildren (Antipoff, 1931); the aims were to investigate their mental development by age group, to compare their mental development with that of schoolchildren in other countries, and to investigate the relationship between mental development and social background. The ages in the sample ranged this time from 6 to 17 years. Three kinds of mental tests were used. The first one, the Goodenough test, based on the analysis of subjects' drawings of a human figure, was applied to 900 seven- to eleven-year-old pupils in six elementary schools. The Dearborn test, involving games and puzzles to be solved by illiterate as well as literate subjects, was applied to the same sample, to which were added 54 six-year-old children from a local public kindergarten and 490 eleven- to sixteen-year-old girls enrolled in the first two cycles of a local normal school. Finally, Ballard's Hundred Questions Intelligence Test was given to 1,381 seven- to seventeen-year-old subjects from elementary and normal schools.

On the basis of the last findings Antipoff suggested that intelligence tests could assess only imperfectly those abilities of comprehension and invention implied in the common definition of intelligence as a capacity for solving new problems through thought (Claparède, 1933). According to her, they could provide an evaluation of the level of mental development of a given population, i.e. the level of a *civilized intelligence*. Consequently, going against the "nativist current that was hegemonic at that time" (Campos, 2003, p. 218) and attributed intelligence to innate dispositions, she defined intelligence as "a more complex product, shaped by the action of several agents, among which we distinguish, besides innate intellectual dispositions and biological growth, the combination of character and social environment [...] in which a child grows up, as well as the pedagogical action, education and instruction to which a child is submitted both at home and at school" (Antipoff, 1931, pp. 131-132).

However, in the previous year she had published research in which the data obtained in the non-verbal tests by the children from Belo Horizonte was compared with that obtained by the Geneva children observed by W. F. Dearborn (1878-1955) with the same test (Antipoff, 1930b). The differences, which decreased with the increase in age, reflected very unfavourably on the Brazilian children. Some time later the question was analyzed in depth in

work carried out by two of Antipoff's colleagues in Recife, the capital of the State of Pernambuco (Barreto, Pessoa, 1930). Their research confirmed the Brazilian children's difficulties in comparison with the European and American children and highlighted how in the comparison between the children from Belo Horizonte and the children from Recife the latter produced better results at 6 years, but this superiority decreased gradually and was actually reversed from the age of 11. Although Dearborn himself, who was the author of the non-verbal test used in these investigations, was quick to warn against attaching too much importance to these statistics (Dearborn, 1935, p. 593; Modell, 2001, pp. 28-56), Antipoff was further convinced of the importance of *civilized intelligence*.

The concept of *civilized intelligence* was confirmed in subsequent studies, which revealed that a large number of abnormal children were enrolled in public schools. This "abnormality" was verified as being determined for the most part by the social-economic conditions of their families. From this time on, Antipoff preferred to replace the classification "abnormal" by the word "exceptional" (*excepcional*) in order to minimize the effects of a negative label on their futures, reasoning that in this way pupils with below average scores were far better defined (Antipoff, 1963).

Antipoff's other achievements included the diffusion of Claparède's works in Brazil – she translated them into Portuguese – the foundation of the Pestalozzi Society in 1932 in Belo Horizonte, which she ran herself with the aim of educating marginalized children, and the setting up of the Rosário Farm in 1940 at the town of Ibirité in the State of Minas Geiras. The main purpose of this *fazenda* (Rafante, 2006) was to host "exceptional" children and guarantee them an education which took account of both physical or hereditary retardation and their family and/or social conditions. In this way, according to É. Lourenço, the principle of school integration arrived in Brazil (Lourenço, 2000, p. 26).

In the same period, Antipoff accomplished her educational and cultural mission by diffusing Pavlov and Lurija's approaches to pedagogy in Brazil (Brasil, 1982, p. 28).

In 1947 Antipoff published an essay devoted to the projective test *Mis Manos* that she herself had devised (Antipoff, 1947). The test, which quickly became well-known – also in Europe thanks to the lengthy review of the essay made by Piéron (Piéron, 1946) – consisted in getting the subject to write (within 20 minutes) a brief essay describing his own hands. It was applied to 100 quite cultivated adult Brazilians (50 males and 50 females) in order to evaluate a series of characteristics such as attention, imagination and affectivity, and served to deduce information about intellectual vivacity, egocentric tendencies, artistic bent, and personal beliefs in hygiene, religion and morality.

According to Piéron, the test devised by Antipoff, although it was in no way inferior to the more common Rorschach test or the T.A.T., did not become widely used because it "requires a long correction and clashes with the frequent inhibition of writing one's own thoughts" (*ibid.*, p. 435).

In 1951, after obtaining Brazilian citizenship, she began to focus on how school could become an “open-all-hours” laboratory for spreading democracy. Therefore, along with her interest in *exceptional* children, Antipoff concentrated on the educational possibilities for super-intelligent children. This was an important step at a time of difficulties for the Brazilian school system.

Thanks to her hard work on educational reform Antipoff won great admiration in Brazil. In November 1972 she received a medal for her work. Two years later, on August 9, 1974, she died. In 2001, in presenting a collection of her works (Antipoff D., 1975), her son Daniel summed up his mother’s cultural merits by underlining her commitment to using psychology as well as pedagogy in dealing with *exceptional* children as well as the super-intelligent ones from the *favelas* (Antipoff, 2002, p. 9), and of understanding the problems of farmers as well as of social misfits living in the outskirts of the town. Helena Antipoff would have been proud of her son: the scientific legacy of this “great entrepreneur in the field of educational institutions” (Antunes, 1999, p. 112) was truly great.

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