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**GERMAN-SPEAKING PSYCHOLOGISTS IN ENGLISH-SPEAKING SOURCES.  
REFLECTIONS ON NATIONAL TRENDS IN THE HISTORY OF PSYCHOLOGY.**

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**ABSTRACT**

The ideal of an universal science without national boundaries, has occasionally obscured the reality of the consistent national trends which have doubtless occurred in research and theorising of different specialities. In our field, according to Ribot, there were a century ago two existing branches of Psychology, in Germany and England respectively, which could be characterized by differentiating traits. This work aims to raise some reflections on the existence of these national trends in the History of Psychology, as regards to most prominent authors in the field. Our aim is to assess the presence and influence of German eminent scientists born in the past century, in the current Psychology, as well as their possible clustering face to authors of different nationality. Both, a quantitative study of their influence on various selected English-speaking sources, and a qualitative analysis in terms of generation, nationality and scientific activity are included.

**Key words :** historia de la psicología; tradiciones nacionales; científicos alemanes.

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***Título en español:***

PSICÓLOGOS ALEMANES EN FUENTES INGLESAS. REFLEXIONES SOBRE LA  
EXISTENCIA DE TENDENCIAS NACIONALES EN LA HISTORIA DE LA  
PSICOLOGÍA.

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The ideal of an universal science without national boundaries, has occasionally obscured the reality of the consistent national trends which have doubtless occurred in research and theorising of different specialities. In our field, according to Ribot, there were a century ago two existing branches of Psychology, in Germany and England respectively, which could be characterized by differentiating traits. This work aims to raise some reflections on the existence of these national trends in the History of Psychology, as regards to most prominent authors in the field. Our aim is to assess the presence and influence of German eminent scientists born in the past century, in the current Psychology, as well as their possible clustering face to authors of different nationality. Both, a quantitative study of their influence on various selected English-speaking sources, and a qualitative analysis in terms of generation, nationality and scientific activity are included.

**Key words:** HISTORY OF PSYCHOLOGY; NATIONAL TRENDS; GERMAN SCIENTISTS.

**Resumen.**

EL ideal de una ciencia universal y sin fronteras nacionales ha dificultado el reconocimiento de tendencias propias, características de cada nación, que sin duda han existido tanto en la teoría como en la práctica de las diferentes especialidades. En nuestro ámbito, Th. Ribot ya señalaba que a finales del siglo pasado existían dos grandes formas de entender la Psicología, caracterizadas por rasgos diferenciales: la alemana y la británica. El presente trabajo plantea, en este sentido, algunas reflexiones sobre la existencia de tales tendencias nacionales en la historia de la psicología, en base a análisis centrados en los autores más prominentes del campo. Nuestro propósito ha sido evaluar la presencia e influencia de destacados científicos alemanes nacidos durante el siglo pasado en la psicología contemporánea, junto a su posible categorización como grupo homogéneo y consistente frente a autores de diferente nacionalidad. Con esta intención hemos planteado un estudio cuantitativo de su impacto en una selección de fuentes en lengua inglesa, y un estudio cualitativo del conjunto de autores en términos de generación, nacionalidad y actividad científica.

**Palabras clave:** HISTORIA DE LA PSICOLOGÍA; TRADICIONES NACIONALES; CIENTÍFICOS ALEMANES.

## **1. Introduction.**

In recent years, and to a great extent due to the importance of the approaches of the critical historiography, constructivism and historiometric and content analysis, the question of "national psychologies" and its problematic reality has once again become the subject of great controversy. Since the first volume of the *Journal of the History of the Behavioral Sciences* (1965) the undoubtable existence of this controversy is recognised, and various works were appearing on the national trends in psychology. This same differential reality was also included in various textbooks of the history of psychology dating from years back. However, as regards to most *productive* and *visible* authors in the field, it seems we are forced to admit the existence of these "national trends". This fact seems well established throughout our data. Elsewhere, it has been shown the dominance of French scientists in French sources, the dominance of British scientists in British sources, the dominance of German scientists in German sources, and the dominance of American scientists in American sources (Varios, 1978).

The purpose of this work is to determine the impact of 19th Century German psychology on contemporary scientific psychology, through the impact of German researchers. The number of aspirants on a list of German scientists relevant to present-day Psychology can be endless, and the criteria of selection always problematic. Therefore, taken as a starting point is one population of recognized eminence in psychology. People studied were researchers included in the ranking proposed by Annin-Boring-Watson (1968), scientists of eminence recognized by expert judges in the history of psychology. They will be evaluated, firstly, in terms of their impact on a group of four well-known American psychological journals (1887-1945); secondly, through their impact on a multidisciplinary repertoire of references, the Social Sciences Citation Index (SSCI) for the period 1966-1985 considering only English sources.

## **2. Methodology, Aims and Sources.**

There is a full historical dialectic, and in it what is *important* is that which is efficient and functional within the interaction and social communication matrix which makes up scientific organization. In such a radical search, we only become fully conscious of the problems involved in establishing the eminence of previous works and authors when we observe the usual low level of convergence between different scales or surveys attempting to determine the *great undertakings* of a period or country. In our search for adequate measuring techniques we reach bibliometric methodology, a procedure applied to written manifestations characterizing any science. This technique may be integrated in a more comprehensive approach to explain historical evolution (Carpintero & Tortosa, 1990). The epistemological framework of this approach is supported by the evolutionary epistemology.

Any attempt to determine the relevance of an author in a specific scientific field, usually turns into a controversial problem of establishing criteria. The range of useful criteria to measure the impact of scientific production is very wide. However, present historiographic tendencies point towards more objective and social criteria. In our case, the criterion is the analysis of references appearing in specialized journals.

Generally speaking, the number of citations provide indices of reliable and objective impact. Nevertheless there is a grave danger of these sources leading to false interpretations, if not used correctly. This danger can be avoided if one takes into account the limitations of the source and of the data, and the possible errors due to the improper use. However, there is plenty of evidence that psychologists judged to be eminent are also those with the greater number of references in scientific literature (Endler, 1987; Jackson & Rushton, 1987; Tortosa et al., 1989).

Our study's working model includes the variables of *generation* and *nationality*.

The variable *generation* is understood according to the historical method of generations (cfr. Varios, 1978). Generation refers to a group of individuals differentially characterized according to certain features, acquired through social interaction, which are relevant for understanding those individual behaviours and historical and social phenomena in which they intervene. Given their birth years, we grouped them into generations, taken every generation as the group of persons born in a span of fifteen years, as a rough measure suggested by the theoretical work of Ortega and Marias (Ortega, 1958; Marias, 1967). These generations will be designated by its central year, with 7 years in front and 7 behind. Thus we can fix a generational ladder which acts as reticle from which to contemplate historical reality. Marias considers 1856 to be the central date from which this generational series may be fixed, which would logically continue forward with 1871, 1886 (...), and backward with 1841, 1826 (...). This date is acceptable to psychology, since in the fifties Helmholtz, Wundt, Dilthey, Galton, Spencer, or Sechenov were either approaching or had just turned thirty; and, in addition, Freud, Binet, Kraepelin, Ebbinghaus, Husserl, or Dewey were born around this time. All generations appearing in a historical period are considered current generations, in the sense that they exist, but only two of them are strictly active; the others are either not yet active or have stopped being so.

How can we categorize the variable of "nationality" for the purposes of this study? In Europe there were many problems due to the profound change in the political geography of Europe in the 19th Century. The simplest criterion, used in some earlier work (Tortosa et al., 1981, 1983, 1989, 1991, 1992, 1993), is the author's country of birth, the usual language in scientific writings and the attributed nationality in our sources of data. In this case our data come from various works of reference, as those already mentioned works of R.I. Watson and L. Zusne.

### 3. Resultados.

#### 3.1. General characteristics of the 19th Century born "Eminent contributors to Psychology".

Researchers belonging to the generations of the 19th Century [1811, 1826, 1841, 1856, 1871, 1886 (born between 1804 and 1893)] have been selected for a more detailed analysis, with a total of 344 researchers, 64% of the 538 composing the population.

The dominance of the U.S.A. in the group is very clear, with 27,33% of eminent authors being born there. However, as pointed out earlier, their incorporation in psychology was late, since 78% of these are grouped in the generational groups of the end of the Century (1871 and 1886). In any case, almost 3/4 of the scientists were born in Europe. In Europe,

Germany outshines the rest, with more than a quarter of authors born there, followed by Great Britain and France, Austria, and Switzerland, and a wide group of nations showing lower quantities. Nevertheless, those presenting their works in the English language remain predominant, totalling 43% of the population, closely followed by those using German - 39%-. When comparing geographic distribution in the generational groups of the first half of the 19th Century (1811, 1826 y 1841) there is a clear dominance of those authors native of Germany and Great Britain, representing along with the French, 71% of the group -with the USA totalling just 8%-, and in the 2nd half (1856, 1871, 1886), the former three countries represent 43%, and the USA just one third of eminent researchers. Our data confirms the immense importance of researchers born in Europe before the birth of the discipline, and the shift of the centre of gravity of psychology towards the U.S.A. after the First World War. This was accelerated by the emigration of European researchers due to the rise of fascism to power in some continental countries (Carpintero, Peiró & Tortosa, 1989).

This group maintains the recognised transfer of professionals from diverse trainings. More than half have been defined by Watson & Merrifield (1973) as psychologists in the strictest sense. Various representatives from the life sciences and to a lesser extent, Philosophers, Social Scientists and Physical Scientists portray the idea. Wolman (1968) wrote that a history of psychology that making reference exclusively to psychology remains incomplete and curtailed; Psychology has always maintained close relations with other disciplinary traditions.

#### INSERT TABLE 1

As for the universities which educated these researchers there is, in Europe, a clear dominance of the German Universities (Berlin, Leipzig and Göttingen). Paris, Vienna, and Cambridge complete the group. Throughout the period the German universities have played a significant role. The diachronic perspective introduces various important issues. For those born between 1804 and 1849, the most important training centres are the European Institutions (Berlin, Paris, Leipzig, Vienna, Heidelberg, Edinburg, Cambridge, Strasbourg, Göttingen, Copenhagen, Pavia, St. Andrews, London), with the only American institution worthy of special recognition being Harvard. In the 2nd half of the 19th Century the situation changes significantly. Amongst the five most important centres of higher education, two are German (Leipzig and Berlin), but three are American (Harvard, Columbia and Chicago). The remaining centres were concerned with once again a European predominance (Vienna, Paris, Göttingen, Cambridge, Strasbourg, München and Zürich), as opposed to the three American institutions (John Hopkins, Cornell and Clark). As for the great masters, Wundt and his doctors (especially Titchener, Cattell and Münsterberg) are those who, without a shadow of a doubt, appear as the outstanding personages. William James and his disciples follow (especially G.S.Hall), G.E.Müller (i.e., Katz, E.R.Jaensch), J.R.Angell (i.e., Watson, Carr), O.Külpe (i.e., Ogden, Wertheimer) and C.Stumpf (i.e., Köhler or Koffka).

#### INSERT TABLE 2

Finally we must make some sort of reference to the average eminence of the generational groups. In general terms, two groups stand out, both with average values superior to 20 points: The generation of 1856 [1.480 points and an average of 20,55], which is that of the *managers* of psychology today, with such distinguished figures as Freud, Pavlov, G.H.Mead, Ebbinghaus, G.E.Müller, Pearson, Bechterev, Husserl, Janet, Dewey, or Kraepelin; and the generation of 1826, when the discipline was born, with the pioneers of the great models and researchers such as W.Wundt or Dilthey, Spencer or F.Galton, Helmholtz or Sechenov. Those which follow with an average between 19 and 20 points, are the generation of 1841 [809 points and an average of 19,73] -i.e., Brentano, Ribot, James, Breuer, Hall, Stumpf, Sully, Romanes ...- and that of 1886 [1.669 points and an average of 19,41] -i.e. Wallon, Bühler, Hunter, Gessell, Binswanger, Pieron, Bridgman, Hull, Wertheimer, Tolman, Koffka, Rorschach, Köhler, Thurstone, Lewin ...-. And finally, the generation of 1871 [1.817 points and an average of 17,99] -i.e. Weber, Watson, Titchener, JR Angell, Woodworth, Adler, Stern, McDougall, Thorndike, Claparede, Terman-, and the generation of 1811 [337 points and an average of 17,74] -i.e. J.S.Mill, Darwin, Bernard, Marx, Lotze, Donders, Du Bois Reymond, Boole, Séguin-.

### **3.2. German-born authors with impact and presence in American Psychology through four American Journals.**

The citations represent, although only to a limited extent, the esteem attributed by a determined scientific community to other works or authors for a specific area of research (Carpintero & Tortosa, 1990). In fact, the number of citations approximately indicates the number of occasions that other authors have taken into consideration the work cited and its contribution. Thus, the result is that the pure quantitative dimension of the citations proves to be oriented towards the qualitative dimension of the intellectual contribution cited (Jackson & Rushton, 1987).

The U.S.A. have the peculiarity whereby, except for the Indians and the Eskimoes, everybody is a more or less recently arrived immigrant. Without taking political and military events into consideration, a highly elevated rhythm of the immigration and asimilation -or rather Americanisation- of scientists has always been mantained. Therefore, it may be interesting to define specifically what is understood here as European researchers.

As in earlier works (i.e. Tortosa, 1981; Tortosa et al., 1983; 1987; 1991; 1992) we have initiated the process with the criterium of country of birth. However, in this case, we must not forget the important detail whereby all those researchers born in Europe and arriving in the U.S.A. as children, will be considered as North American. Nonetheless, a scientist will continue to be considered European, if born, trained, and active there, even if the most productive and significant part of his professional career were fulfilled in the U.S.A.

The group of the 23 European-born authors most cited in the four journals (Table 3) obtains a high average of eminence in the Annin, Boring & Watson's Ranking (Annin, Boring & Watson, 1968), 18 of these are to be found with the maximum level of eminence (level 27), and one of them - G. Razran (1973†)- is not included in the Ranking for obvious reasons. But Zusne (Zusne, 1975) in his replication to the Annin, Boring & Watson's previous study was to award him the maximum eminence. The remaining four are arranged between the

ranking of 20 and 26. Their places of birth are in accordance with the picture usually portrayed by historians of the first 70 years of the disciplinary history of psychology: 14 originate from German-speaking countries, 4 from the United Kingdom, 3 from Russia and 2 from France. Nevertheless, it should be noted that 9 of those 23 researchers developed the greater part of their productive careers in the USA, or finished their academic and professional lives there.

Finally, the dates of birth of 20 of the 23 authors (with the exception of Helmholtz, Wundt and Stumpf) are situated between 1849 (Generation of 1856) and 1908 (Generation of 1901). Therefore the central Generation of the past Century is that of 1856, embodying the births of the *managers* of Contemporary Psychology, and providing the most *eminent* psychologists. The Generations of 1871 and 1886 follow afterwards. These facts are validated when measuring the eminence of the members of the different Generations in as much as the number of citations, or of space occupied in History of Psychology textbooks. This would seem to confirm once again, the fact that *experimental psychology was born* within the context of the German University in the last third of the 19th Century, and from there it spread to other countries and continents.

### INSERT TABLE 3

This group of names obtained from the analysis of references of papers contained in the four journals, certainly includes well-known names in experimental and physiological psychology, many of them focused upon the study of consciousness, and also of the unconsciousness, from different points of view; on the other hand, it includes the main representatives of psychological schools that occupied the scientific field in the middle 1920s and in the 1930s. Wundt's experimental or individual psychology (but not social or ethnic), and its American variant, Titchener's structuralism, with clear differences between them (Tortosa, 1989); the more purposive focus of McDougall's hormic psychology, British factorialism-Spearman-, the forefront of the Gestalt School -Köhler, Koffka- and its variant the field psychology -Lewin-, the Russian School of conditioning -Pavlov, Bechterev-, personology -Stern-, *orthodox* psychoanalysis -Freud- and jungian analytical psychology. And also represented are different fields such as mental testing and the study and measurement of intelligence and abilities (Binet, Spearman, Stern ...), psychotechnics (Münsterberg), psychopathology (Freud), neurophysiology (Sherrington), experimental psychology of the senses (Helmholtz; Meyer -also a precursor of Watson with his *The Fundamental Laws of Human Behavior* 1911; and Stumpf, one of the great inspirers of the Gestalt School), some of those responsible for experimental or empirical developments in the study of higher processes -memory (i.e. Ebbinghaus & G.E.Müller), thought processes (i.e. Külpe)-, constitutionalism (Jaensch) and the environmentalism (Pieron) with a strong psychophysiological root. Thus, there is a group of prominent figures, who, apart from their written works, had at times, a direct influence from their own laboratories (i.e., Wundt, Müller, Külpe, Binet, Stumpf ...). Here many American researchers were to be trained, who then transported their ideas to the *New World*.



Among these group of names there is a clear over-representation of American psychology. However, the great lines of influence exerted by European psychologists also stand out.

### **3.3. German-born authors of the 19th Century Generations with impact and presence in American Psychology through their number of references in Social Sciences Journals.**

Here we analyse the impact of the members of the different generational groups, measuring in terms of the number of citations received. We only have into account the group of the 20 most cited authors in each generational group. Our aim is to discover the most important influences shed by the researchers born in 19th Century.

Firstly, the generation of 1811 is represented -i.e., Darwin, Stuart Mill, Bain, Lotze, Bernard and Marx-, basically represented for being the beginners of evolutionary theory and marxism. Also making his mark was Stuart Mill with an associationist psychology of a postivistic and utilitarian ideology. Some way behind comes the considerable group of representatives of physiological psychology.

The main scientists of the 1826 generation are Wilhelm Wundt, always present in historical texts as the "father founder" of disciplinary psychology, Spencer -with his theory of evolutionary association, one of the pioneers of the later so-called "social darwinism" and of the paradigm of adaptation-, and Galton -one of the founders of the field of individual differences in psychology who contributed basic statistical concepts; in short, the initiator of psychometrics-. We can see also Helmholtz -pioneer of sensory psychology and Wundt's influential teacher-, and the initiators of some important approaches to contemporary psychology, such as Sechenov -the major figure in the rise of Russian physiology and the founder of objective psychology-, Dilthey -opposed to the "new" wundtian laboratory psychology, who classified psychology as cultural science-, and the French neurologist Charcot -founder of the neurological clinic at La Salpêtrière hospital in Paris and master of Janet and Freud-. The men of this generation indicate the new perspectives of psychology in the last quarter of the 19th Century: sensory psychology and psychophysics, institutionalised psychological experimentation, psychology of adaptation, the measuring of individual differences, relexology, comprehensive psychology, psychopathology ... These are all different ways of understanding the new science which, to a great extent, were to be responsible for the majority of conflicts between the differentiating points of view, characterizing the first half of the 20th Century.

The generation of 1841 contemplates the introduction of American psychologists, as well as the considerable influence of evolutionist psychology and experimental psychology of the senses, initiating the first specialized psychological fields -child and animal psychology-, as well as new epistemological models. This generation is clearly dominated by William James, who, for Carpintero (1972), was the great initiator of North American psychological objectivism, and some distance behind James, are the other pioneers of pragmatism, Peirce and Hall, organizers of American psychology. On the European Continent the German philosopher Nietzsche with his will to power as the primary motive, is the most cited author; and, besides him, is the foremost figure of 19th-Century neurologists Hughlings Jackson (Hearnshaw, 1964), the Austrian positivist, physicist and philosopher of science Mach, the initiator of the Act Psychology or the Austrian School of Psychology Brentano, representatives of the new sensory-psychology such as Stumpf or Hering, of animal

psychology and developmental psychology such as Romanes and Preyer, and of psychiatry such as Breuer, the influential friend and master of Freud, or the hypnotist of Nancy Bernheim, who was also influential on Freud's first work. Finally, there is the important group of sociologists, such as the frenchmen Le Bon and Tarde with the well-known work about the psychology of crowds, and Lombroso the initiator of the positive school of criminology.

In the 1856 generation (those born between 1849 and 1863) in which Freud stands out clearly above all the rest, belong the representatives of the second generation of American psychologists. It includes the *managers* of contemporary psychology (Carpintero, 1986). After Freud, we can see Pavlov, who started with the basic form of conditioning, the main representative of the experimental study of the higher processes such as Ebbinghaus and G.E.Müller -memory-, Külpe -thought- and Binet -intelligence-; phenomenologists such as Husserl, functionalists such as Dewey, Baldwin or McKeen Cattell, who moreover started promoting the idea of mental tests in USA, or social behaviorists such as GH Mead; psychiatrists of the stature of Janet or Kraepelin; the British scientists Pearson and Spearman, who initiated the correlational tradition in psychology, and offered an influential theory of intelligence and an influential biometric approach; and some others including the great representatives of the Cambridge physiological tradition Sherrington and Head. Together with these, with great impact, there is a series of figures in the field of social sciences, such as the French philosopher Bergson (1859-1941), the French anthropologist L.Lévy-Bruhl, or the French sociologist E.Durkheim; without forgetting the German-American anthropologist F.Boas.

Authors belonging to the 1871 generation (born between 1864 and 1878) largely represent the continuation of the channels opened by Wundt, James, Freud and Pavlov, with the exception of J.B.Watson born at the very end of the generation (1878), shedding new light on them and considering new perspectives and problems. This generation is the most prolific in terms of eminent in the service of psychology. They carry the mark of American psychology, and they include the initiators of the first psychological Schools: structuralism -Titchener-, functionalism -Claparede, Angell and Carr-, dynamic psychology -Woodworth-, hormic psychology -McDougall-, connexionism -Thorndike-, personology -Stern-; individual psychology -Adler-, analytic psychology -Jung-, and orthodox psychoanalysts -Abraham and Ferenczi-. With them, are the comparative psychologists -Yerkes-, educational and testing psychologists - such as Montessori and Terman-, psychophysicologists -Cannon- and the "dean of American psychiatry, the Swiss scientist A.Meyer next to psychoanalysis and behaviorism with his *commonsense* psychiatry but also too far, and the pre-humanistic neurologist K.Goldstein. Besides them are groups of social scientists -such as M.Weber, Ch.Cooley and B.Croce- and the well known British statistician Yule.

This generational group was to make its presence felt basically after the first decade of the 20th Century, extending its activity to the 1930's. It was a generation full of eminent figures in various disciplines, but already dominated by psychologists. Their average level of eminence is high. As for the countries of origin, more than half come from Anglosaxon nations (45 from the U.S.A. and 10 from the UK) with the remainder being natives of countries on the European Continent, where Germany stands out with 19 eminent researchers. Noah Porter (g.181) was the first American-born thinker to be included in the Ranking, since then, as regards to both number and differential weight that they have on the present scientific community, their dominance has been undoubtable. Many of the German-

speaking scientists of this generation are marked by the rise of Nazism to power- which, in many cases, obliged them to move to Anglosaxon countries (Wellek, 1968; Fermi, 1969).

The 1886 generation (born between 1879 and 1893) is the last of the glorious century of science. As shown by their scientific contributions, members of this generation were to make their presence in research felt from the 1910s to the 1950s. It is a generation of eminent scientists for psychology, with a predominance of psychologists, with nearly 75% of these identified as such by Annin-Boring-Watson (1968). Next to them in decreasing order there are: psychoanalysts, psychiatrists, physiologists and biologists, social scientists and natural scientists. With respect to their country of origin, three fifths come from Anglo-Saxon countries, the remainder come from continental Europe: Germany standing out with 25 eminents. Central-European scientists, in particular German speakers, are marked by the mentioned unavoidable socio-political phenomenon: the rise of Fascisms to power in various European countries. In many cases scientists were forced to seek exile in Anglo-Saxon countries, thus, practically destroying a brilliant research reality (Mandler & Mandler, 1969; Coser, 1983; Geuter, 1987).

Here we find the greatest representatives of the Gestalt School -Rubin, Wertheimer, Koffka and Köhler, together with the field psychologist Lewin-; the best representatives of neobehaviorism -Tolman and Hull-; representatives of new tendencies shedding new light to the psychoanalytic perspective and psychiatrists -Klein, Fromm, Alexander, Sullivan-. It is also the generation of some of the representatives of the developmental psychology such as Werner and Gesell; psychobiologists such as Lashley; statisticians -such as Fisher-, and representatives of the psychometric tests -Thurstone-. Followed by linguists such as Sapir, or cultural anthropologists such as Linton and Malinowski, who study the relationship between personality and cultural forms.

#### 4. Discussion and conclusions.

In this moment the question is: Does there exist a well established group of names that could be taken as the German core tradition of the discipline?

Is not easy to answer this question. The German scientists constitute the first great geographical core group of eminent authors born in Europe through the 19th Century. Their average eminence is certainly considerable. A lot of them have been identified by Watson as *psychologists*, who together with *philosophers* and *life scientists* (physiologists, psychiatrists, neurologists and ophthalmologists), form the backbone of the German 19th Century. Furthermore, there are very different criteria of eminence.

There are three main criteria of eminence: stratification by judges, stratification by space occupied in history of psychology textbooks, and stratification by the number of citations received. These criteria lead to different, but complementary, approaches to the problem of *eminence*. It could be said that the two first criteria determine the *historical classics*, while the third identifies the *functional* or *living classics*.

We have just given data based on citation frequency counts (before and after the II World War). In other previous works (i.e. Tortosa et al., 1983, 1989), we reproduced the classic study of Annin, Boring and Watson (1968), using as stratification criterion the number of references in SSCI (1966-1982). In our data, a significant contingent of German scientists

from the 19th Century generations (always with a rank higher than 19 in ABW Ranking) appear. Among the first 75 names in the new Ranking, numerous German-born researchers appear: Freud, Lewin, Jung, Werner, Adler, Husserl, Kraepelin, Köhler, Goldstein, Horney, Abraham, Nietzsche, Wertheimer, Wundt, Koffka and Kretschmer.

Weiten & Wight (1992) offer an analysis of references from 40 Introductory psychology textbooks in America distributed by decades (from 1890 to 1980). They ranked the seven most frequently cited theorists and researchers for each book on the basis of the number of index entries for each author. Next, they combined these rankings for each decade. These lists reveal that Wundt and Helmholtz were dominant figures in the early decades, adding to them Ebbinghaus and Stumpf in the 1910s, before giving way to Köhler and Lewin from 1920s, and also Freud and Adler from the 1930s. In 1940s only Lewin appears, and from the 1950s to 1980s Freud is number one.

The following are data from the other two criteria.

Using the Ranking of Annin, Boring and Watson, it can be seen that 14 German-born researchers (Adler, Brentano, Ebbinghaus, Freud, Helmholtz, Hering, Jung, Koffka, Köhler, Kraepelin, Külpe, Stumpf, Wertheimer, Wundt) occupy the maximum level of eminence, that includes 45 researchers born in the 19th Century.

Coan y Zagona (1962) elaborated another Assessment Scale, with a panel of 194 members of the APA who had taught history courses, to assess the most important contributions to psychology between 1880 and 1959. Among the 75 theorists who obtained the highest scores, there were 16 Germany-born authors from the 19th Century Generations: Wundt (ranking 3), Wertheimer (8), Lewin (10), Köhler (11), Helmholtz (12), Koffka (15), Ebbinghaus (24), Jung (30), Adler (33), Brunswik (36), Brentano (40), Külpe (42), Goldstein (44), Horney (45), Rorschach (46), Mach (50), G.E.Müller (57), Hering (59), Stern (61), Kraepelin (65), and Stumpf (75). As regards the time perspective, in the decade 1880-1889 appears Wundt, who occupies position number 1, Helmholtz is number 3, Ebbinghaus number 4, Brentano number 8, G.E.Müller number 9, and Mach number 10. In the 1890s Wundt is number 2, Freud number 5, Ebbinghaus number 7 and Külpe number 10. In the 1900s only appears Freud as number 1 and Wundt as number 10. In the 1910s appear Gestaltists, Wertheimer as number 2 and Köhler number 7; and psychoanalysts, Freud number 3, Jung 9 and Adler 10. There is the same picture in the 1920s, Gestaltists (Köhler, Wertheimer, Koffka and Lewin) and psychoanalysts (Freud, Adler). In the 1930s Lewin and Köhler occupies positions number 3 and 5, and Freud is number 4. In the 1940s Lewin is number 4 and Köhler number 7, Finally in the 1950s only Brunswik appears amongst the most important in the field.

Seberhagen & Moore (1969) obtained a list of 10 *responsible*, and 10 *influential* researchers. The list was composed by gathering 91 directors of the departments of psychology. With the same aim, Wright (1970) with 246 members of the APA, obtained a similar list of 10 *responsible*, and 10 *influential* researchers, who were not difficult to superimpose. Freud and Wundt as responsables, but not influentials, are the only German scientists appearing in both Rankings.

Heyduck & Fenigstein (1984) acquired a group of influential scientists and works in contemporary psychology, by means of surveys carried out on 92 psychologists already

considered as eminent figures. Only Freud with four works [*The Psychopathology of Everyday Life* (1901), *A General Introduction to Psychoanalysis* (1924), *The Interpretation of Dreams* (1900), and *Introductory Lectures on Psychoanalysis* (1917)], Lewin also with four works [*A Dynamic Theory of Personality* (1935), *Resolving Social Conflicts* (1948), *Principles of Topological Psychology* (1936) and *The Conceptual Representation and Measurement of Psychological Forces* (1938)], Koffka with *Principles of Gestalt Psychology* (1935), and Köhler with his *The Mentality of Apes* (1927) represent the German contingent included in our sample.

And finally the third criterion, a new measure of eminence based on the amount of space devoted to the discussion of concrete authors in History of Psychology texts. Zusne & Dailey (1982) reproduced the classic work of Annin, Boring & Watson (1968). The names that were targeted for measurement were the 538 names in the ABW list that had received a rating of eleven or above and thirty-two names more that had been rated ten and below and who were also mentioned in any of the sixteen texts. Among the 75 first names in the new Ranking - arranged in order of the mean percentage of pages given each in the sixteen texts-, a good number of German researchers from the 19th Century Generations appear: Freud, Wundt, Helmholtz, Lewin, Jung, Adler, Ebbinghaus, Wertheimer, Brentano, Külpe, Lotze, J.Müller, Köhler, Horney, Stumpf, Husserl, G.E.Müller, Mach, Dilthey, and Hering.

Only 15 names appear in the 3 aforementioned criteria of eminence: Freud (Freiberg, Moravia, Austria-Hungary), Wundt (Neckarau, Baden), Helmholtz (Postdam, Brandenburg), Lewin (Mogilno, Prussia), Jung (Kesswil, Thurgau), Adler (Vienna), Ebbinghaus (Barmen, North Rhine-Westphalia), Köhler (Revel, Estonia), Wertheimer (Prague, Austria-Hungary), Brentano (Marienburg-am-Rhein, near Cologne), Külpe (Kandava, Latvia), Horney (Hamburg), Stumpf (Wiesentheid, Bavaria), G.E.Müller (Grimma, Saxony), and Hering (Altgersdorf, Saxony).

Those names taken in their entirety, provide empirical evidence of a definite image of the German tradition. This, to a great extent, can be validated by other specialized studies (i.e. ). It seems that in German psychology there is a well established group of names that could be taken as the *core* tradition of the discipline, and a variety of frames of reference coexist for psychologists working on different topics, not totally separated between them.

It is interesting to see the particular trends that seem to shape a defined portrayal of German Psychology.

This group of names was obtained from different sources. These sources represent different intellectual markets and are also seeking different aims and they are fulfilling different disciplinary functions.(Ash, 1983; Geuter, 1983) However they agree on a group of well-known names in empirical, experimental and physiological psychology, many of them focused upon the study of consciousness from different points of view; on the other hand, there is a representative group of the foremost psychoanalytic approaches and the main representatives of Gestalt and Field Psychology. The typical image of German Psychology in turn to the 1900s and in the middle 1920s and in the 1930s is offered through ceremonial historiography, and in many cases, by current critical historiography, centered on raising classical names and institutions once again and on discovering historical dishonesties or simplifications.(vg. Furumoto, 1989; Hilgard, Leary & MacGuire, 1991).

The most outstanding people tend to be influential theorists and prolific researchers rather than applied psychologists, and academic settings predominate over other surroundings.

Louttit (1932, 44) stated that "the history of psychology shows that by far the greatest portion of the experimental work and theoretical discussion has come from men engaged in university work". In many countries the creation of an academic degree in psychology has anteceded to the establishment of a professional diploma or certificate with an applied emphasis. Basic research and theoretical progress have normally anteceded to social applications, and that research practice have been a result of academic work that is essentially focused on such enterprises. It is true in the German case.

As Littman (1979, 51) argues in its universities "Germany had industrialized the process of acquiring and applying knowledge". However, if the German system was well suited to give birth to psychology, it also possessed features that would slow its growth and shape its form (Ash, 1982; Bataller, 1991). The first psychologists were researchers and trainers. "Taken together, the twenty-one universities on the territory of the German Empire might well be called the social system of German science (...) [whose] primary function, however, was the training of Germany's educated elite" (Ash, 1982, 3-4).

From the pre-wundtian world there is only Helmholtz, one of the Wundt's masters and "patriarch of German science and the state's foremost advisor on scientific affairs" (Turner, 1972, 243). The psychology that Helmholtz envisioned was to be firmly grounded in physiology. Physiology, in turn, was to be firmly grounded in physics and chemistry. Helmholtz's vision of the unity of the sciences was the first stone in the struggle toward to consider psychology as natural science.

The *founder father* Wundt is especially represented through his experimental or individual psychology, but not the social or ethnic. Curiously, from the Wundt's legacy in Germany only appears Hering. Also appear a striking alternative to Wundt's psychology, the act psychology, a system advanced by Brentano, one of the contestants with Wundt in *Der Methodenstreit (Erklären vs Verstehen, and Naturwissenschaft vs Geisteswissenschaft)*. The first school of Leipzig vs the first school of Würzburg. In both cases a very important legacy through significant students.

As Tortosa (1989) and Carpintero (1992) argues, psychology everywhere seems to have been influenced by a common root or model that is to be found in the Wundtian tradition. This tradition played a critical role at an early time by providing a scheme according to which institutionalization of the new science could be achieved. Many countries, such as the United States, Belgium, Japan, India, Finland, Spain and Sweden, may claim an immediate connection with Wundt. In other cases, such a nexus, although not so easily perceived, has also been shown to exist.

From the post-wundtian world appear three significant names, some of those responsible for experimental or empirical developments in the study of higher processes -perception [Stumpf (Berlin), memory [i.e. Ebbinghaus (Berlin, Breslau) and G.E.Müller (Göttingen)] and thought processes [i.e. Külpe (Würzburg, München)]-. In 1900 Stumpf founded a Psychological Institute and "made out of the Berlin Institute one of the world's biggest and most efficient psychological centres of research and teaching" (Sprung, Sprung & Kernchen, 1984, 352; see also Sprung & Sprung, 1985). By the early 1920s, Gestalt psychology had become a vital force in Germany, with the largest center of activity at the Psychological Institute headed by Köhler at the University of Berlin; and on a smaller scale at Frankfurt or

Giessen. With the death of Wundt in 1920, the laboratory and the department of psychology undeniably occupied the primary position among the German psychological centers.

Thus, there is a group of prominent figures, who, apart from their written works, had at times, a direct influence from their own laboratories (i.e., Wundt, Müller, Külpe, Stumpf ...).

Like Gestalt Psychology, Psychoanalysis is more than a system of psychology. It is an intellectual movement that has had a deep and pervasive influence in many fields. There can be little question that Sigmund Freud opened up new intellectual vistas with far-reaching consequences for psychology and other disciplines. However, as with other psychological approaches, psychoanalysis quickly turned into a divided house. Many of those who were influenced by Freud disagreed with certain aspects of his system. Very soon appear some alternatives to Freud's theory; Jung's analytic psychology, Adler's individual psychology, or Horney's social psychoanalysis.

German psychology would suffer a destructive stroke during the Nazi period (Geuter, 1987). As Carpintero (1992, 95) wrote: "The entire psychological field was this dramatically changed. In a certain sense, an entire epoch was closed with the war, and a new era began". A good proof is the total absence of scientists from this period in the different criteria..

Different historiographical practices (vg textbooks, obituaries, articles, monographs, biographies and autobiographies) are offering never ending images imágenes of the same authors, they are mistaking more than clarifying. Without falling totally in disuse, certainly the simples histories with *heros* and *peasants* are falling into oblivion. The hagiographical and panegyric points of view, the linear tales, unideological, naively rupturing, internalists, etc. have given up way through critical reconstructions that are assuming the confluence of various intellectual factors -philosophical and scientific-, institutionals, socials and cultural. All that is clear in the field of journal's articles, basic communications tools to research front, and are benoming also to be in the case of monographa, including certain textbooks.

In spite of differences in approaches to the authors and his intellectual work, certainly appears a remarkable consistence with regard to the most significant names between the German scientists born in the 19th Century. An outstanding correlation between different historiographical approaches seems to exist, at least ... with regard to the authors.

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**Table 1:**  
**General Characteristics of the eminent authors included in the Annin-Boring-Watson's Ranking born between 1804 and 1893**

GENERATION			PROFESSION				COUNTRY		
	<i>Frc.</i>	<i>%</i>		<i>Frc.</i>	<i>%</i>		<i>Frc.</i>	<i>%</i>	
G.1811	19	5,52	Psychol	176	51,16	USA	94	27,33	
G.1826	25	7,27	Psychoanal	13	3,78	Ge	90	26,17	
G.1841	41	11,92	Philos	30	8,72	GB	50	14,53	
G.1856	72	20,93	Physician	47	13,66	Fr	32	9,30	
G.1871	101	29,36	Physiol	38	11,05	Aus	21	6,09	
G.1886	86	25,00	Biol	12	3,49	Switz	12	3,49	
			Social Sct	18	5,23	CEI	11	3,20	
			Natural Sct	10	2,91	It	8	2,33	
						Other	26	7,56	
<b>Total</b>	<b>344</b>	<b>100%</b>		<b>344</b>	<b>100%</b>		<b>344</b>	<b>100%</b>	

**Table 2: The most relevant universities in 19th Century**

<b>HIGHER DEGREES CONFERED ON RESEARCHERS BORN IN THESE YEARS AT THESE UNIVERSITIES</b>					
<b>1804-1848</b>		<b>1849-1893</b>		<b>1804-1893</b>	
BERLIN	11	LEIPZIG	22	BERLIN	28
PARIS	6	HARVARD	21	LEIPZIG	26
LEIPZIG	4	BERLIN	17	HARVARD	25
HARVARD	4	COLUMBIA	16	PARIS	16
VIENNA	4	CHICAGO	12	COLUMBIA	16
HEIDELBERG	3	VIENNA	11	VIENNA	15
EDINBURG	2	J. HOPKINS	11	CHICAGO	12
CAMBRIDGE	2	CORNELL	11	J. HOPKINS	11
STRASBOURG	2	PARIS	10	GÖTTINGEN	11
GÖTTINGEN	2	CLARK	9	CORNELL	11
COPENHAGEN	2	GÖTTINGEN	9	CAMBRIDGE	10
PAVIA	2	CAMBRIDGE	8	STRASBOURG	9
St. ANDREWS	2	STRASBOURG	7	CLARK	9
LONDON	2	MÜNCHEN	7	REST	20
<b>Total:</b>	<b>48</b>		<b>171</b>		<b>219</b>

Source: Zusne (1984)

**Table 3: The 23 most cited European born authors in four American journals  
(1887-1945)**

<i>NOMBRE</i>	<i>A.J.P.</i>	<i>P.R.</i>	<i>P.B.</i>	<i>J.E.P.</i>	<i>Total</i>
E.B. Titchener	547	186	106	56	895
*W. Wundt	593	125	---	27	745
*W. Köhler	118	106	59	43	326
*K. Koffka	107	101	59	49	316
W. McDougall	69	150	97	---	316
I.P. Pavlov	31	68	99	89	287
A. Binet	94	64	62	---	220
*S. Freud	78	58	60	---	196
*K. Lewin	30	106	54	---	190
*H. Ebbinghaus	105	33	---	44	182
*H. Helmholtz	90	46	---	25	161
*G.E. Müller	73	37	---	44	154
G. Razran	14	43	---	92	149
Ch. Sherrington	49	68	---	29	146
*C. Stumpf	97	41	---	---	138
*W. Stern	32	31	64	---	127
*E.R. Jaensch	19	16	87	---	122
*H. Münsterberg	71	48	---	---	119
H. Pieron	19	---	96	---	115
Ch. Spearman	28	84	---	---	112
*O. Külpe	78	29	---	---	107
*M. Meyer	54	52	---	---	106
V. Bechterev	15	28	55	---	98