

MILESTONES IN THE HISTORY OF THE PSYCHOLOGY OF TESTIMONY IN THE INTERNATIONAL SCENE

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Abstract

The Psychology of Testimony has experienced extraordinary growth in recent decades, but its origins go back more than one hundred years. In this paper, the main milestones that have marked the development of the Psychology of Testimony as a discipline with its own identity in North America and Europe are reviewed. The advancement of scientific psychology, with different paradigm shifts, as well as the shattered relations with the law and social progress in human rights have marked its history. Thus, promising beginnings in the late nineteenth and early twentieth centuries took place, followed by a time of crisis around the forties and fifties, as a result of the Second World War and the abandonment of the studies on memory by the prevailing research paradigm. Cognitive Psychology and increased demand for psychologists in the administration of justice marked his rebirth in the seventies of the twentieth century.

Keywords: Eyewitness testimony, history of psychology.

HITOS DE LA HISTORIA DE LA PSICOLOGÍA DEL TESTIMONIO EN LA ESCENA INTERNACIONAL

Resumen

En el presente trabajo se recogen los principales hitos que han marcado a lo largo de más de cien años el desarrollo de la Psicología del Testimonio como una disciplina con entidad propia. El avance de la Psicología científica, con los diferentes cambios de paradigma, así como las maltrechas relaciones con el derecho y los avances sociales en derechos humanos han marcado su historia. Así, podemos hablar de un prometedor nacimiento a finales del siglo XIX y principios del XX, seguido de una época de crisis en torno a los años cuarenta y cincuenta, como consecuencia de la II Guerra Mundial y del abandono de los estudios sobre la memoria por el paradigma de investigación imperante. La Psicología cognitiva y el incremento de la demanda de psicólogos en la administración de justicia supuso su renacimiento.

Palabras Clave: Psicología aplicada, testimonio, historia, memoria.

A testimony is an account of memory that a witness made on a facts previously witnessed, for this reason the *Psychology of Testimony* is also known as *Eyewitness Memory*. This makes the psychology of testimony in one of the most direct applications

of *Experimental Psychology*, whose hand has been since the beginning of the modern discipline. So much so that the Psychology of Testimony is one of the topics included in the vast majority of Experimental Psychology books published during the first half of the twentieth century, for example those published by Braunshausen (1915), Vaissière and Palmés (1924), and Woodwoth and Schlosberg (1938), who engage several pages to the accuracy of eyewitness memory and suggestibility of interrogations. Something similar happens with the handbooks on Psychology of Memory (e.g. Hunter, 1957), and Applied Psychology (e.g. Erismann, 1925; Burt, 1948).

The Psychology of Testimony includes two closely related areas: accuracy and credibility. The first area deals with studies on factors related to attention, perception and memory processes that influence the accuracy of the statements and eyewitness identifications. Several issues have been particularly relevant here: the procedures for obtaining statements (recall, recognition, cognitive interviews, memory aids ...), for identification (photographs, line-ups, composites ...), the individual differences (age, sex, involvement, anxiety ...), the influence of perceptual processes in the interpretation of information (perception of sounds, conversations, shapes, speed, colours ...), false memories (memories recovered, post-event information, suggestibility...), the effect of attentional conditions at encoding processes (weapon's effect, details outstanding, distinctiveness...), and other factors of retention and retrieval (multiple recovery, the effect of questions, preparation, delay ...).

The second area concerns the discrimination of the origin of the information provided by witnesses (perceptual and actual, or suggested, imagined, false ...). The approach to this task was carried out from the Cognitive Psychology, as well as from Social Psychology and Clinical Psychology. They have also been of interest the approaches to the study of lies from Neuroscience, Psychophysiology, and the Psychology of Language and Communication.

BACKGROUND

The history of the Psychology of Testimony back to the origin of law. For example, concerning the importance of the testimony, the procedure for their production and their role in the investigation of truth can be found in Greek and Roman texts.

More recently, interesting texts on basic aspects of the evidence (accuracy and certainty, procedures, credibility of the reports, type of witnesses ...) can be found in the refereed proceedings of the Inquisition. An example of this are the guidelines under the questioning of witnesses produced by Nicolas Eymeric, General Inquisitor of Aragon in the fourteenth century, in the manual entitled *Directorium Inquisitorum* published in 1376.

Several centuries later, in 1764, the Italian Cesare Bonnesano, Marquis of Beccaria, published the book *De los delitos y las penas* (On Crimes and penalties) which includes a chapter on *Witnesses*, and another on *Suggestive interrogations, and statements*.

BEGINNINGS OF THE PSYCHOLOGY OF TESTIMONY

Beyond previous precedents cited, it is not possible to properly speak of Psychology of Testimony to the nineteenth century. One of the earliest researchers that specifically talked about the psychology of testimony was A. Motet (1887), in France, in a study on children's false testimony, where he commented real cases from the point of view of the problems of suggestibility and distinction between imagination and reality in children. However, the most important milestone in Europe, was the publication of the Austrian book *Kriminalpsychologie* by H. Gross (1897), largely engaged to the testimony: accuracy, perception, imagination, memory, and interviews were among the topics discussed.

In the U.S., Cattell (1893) appears as the first to investigate the accuracy of the statements of witnesses. Especially interesting is the paper published by Colegrove (1899) in *The American Journal of Psychology*, with the title of *Individual memories*, where he collected what may be considered first research on *vivid memories*, about the assassination of U.S. President Abraham Lincoln in 1865. *The American Journal of Psychology*, since its first issues, published about the memory of witnesses (see, for example, the work on the experiences of memory by Burnham, 1889; that on recognition by Allin, 1896; and those on the lie by Triplett, 1900).

From an applied point of view, the disciple of Wundt, Marbe, was the first known to intervene in a trial as an expert witness, in 1892, to report on reaction time in a train accident.

Already in the twentieth century, three key figures in the birth of the Psychology of Testimony were from an experimental point of view and applied to forensics: Alfred Binet, Hugo Münsterberg and William Stern. Along with Gross, the four have been considered the co-founders of the discipline.

The Frenchman A. Binet, published the book *La suggestibilité* (1900) and shortly after *La Science du témoignage* (1905). In addition, he published *L'Année Psychologique*, with Beaunis, Henry and Ribot, where interesting work applied to the psychology of testimony were published since its first issues. The work by Claparede (1905), entitled *La psychologie judiciaire*, which summarized the relevance of the Psychology of Testimony of the age in Europe, is an example.

But it was in Germany where more researchers were engaged to work on the eyewitness testimony. From 18 to 21 April 1904 the *First German Congress of Experimental Psychology* was held, where papers were presented under the title of the Psychology of Testimony. Among the participating researchers highlighted W. Stern and M. Borst, according to the chronicles published by Spearman (1904), who described the discipline as "the young experimental science of testimony" (p. 448). By then, Stern (1902) had already performed several experimental studies on the accuracy of the testimony.

On the other hand, Münsterberg (1908) authored the first textbook specific on Psychology of Testimony, titled *On the Witness Stand*. The disciple of Ebbinghaus, W. Stern, edited the first journal in the field titled *Beitrage zur Psychologie der Aussage* (1903-1908), where experiments in Psychology of Testimony, by authors such as Borst (1905), Jaffa (1903), Kosog (1905), Lipmann and Wendriner (1905) or even Stern (1904), can be found.

Other European countries also were interested in this discipline. In Italy, for example, Lombroso (1905) was the first to publish a study on the psychology of testimony and criminal procedure, which was followed by the works of Berardi and Bianchi (1908) and Dattino (1909). There, Ferrari (1906) was one of the firmest defenders of creating a specialty in psychology to work this topic.

This new discipline, in which some of the most important researchers in experimental psychology of the moment would work, was not well accepted by the world of law. Beyond it was considered an auxiliary science of law that would facilitate the collection and evaluation of the testimony, the Psychology of Testimony was taken by a nosy. Thus, at birth, and until today, the relationship between psychology and law will be stormy. In this regard, the critical review written by Winter (1909) about Moore in *The American Journal of Psychology*, is very enlightening. In it, Winter showed what the Psychology of Testimony was then. Moore (1908) had published a voluminous work, partly as a reply to the paper by Münsterberg titled *Nothing but the Truth*. In his work, Moore denies the usefulness of psychology, and he stated that it was only the "science of common sense." At the same time, he collected hundreds of sentences that would treat on the Psychology of Testimony. However, in Volume II the chapter specifically dedicated to the memory, entitled *Physical Conditions Affecting Memory*, and the chapter on credibility of witnesses, entitled *Credibility of Witnesses in General*, highlighted. Moore's work was praised by the world of justice (see, for example, the reviews published in 1909 in *Columbia Law Review*, in *The Yale Law Journal*, or in *University of Pennsylvania Law Review and American Law Register*).

In any case, the initial difficulties were overcome, thanks to the interest and dedication of growing number of researchers, as well as the gradual acceptance by the legal world. Not surprisingly, forensic psychology, with the help of forensic psychiatry, was then part of the administration of justice. A clear example occurred in Spain, where Francisco Santamaría made the first experimental work in Spanish on the accuracy of eyewitness memory in 1909. It was his doctoral thesis, directed by Luis Simarro (1851-1921), a colleague of the Nobel laureate Santiago Ramon y Cajal, and first professor of experimental psychology in the Spanish university. Santamaría found a mature discipline from an international perspective, but also national. The Spanish Forensic Psychologists began its activity with the Health Act of 1885 that created the team of forensic specialists, where the Section of Toxicology and Psychology was; and Rafael Salillas had created the School of Criminology in 1903. Santamaría was Assistant Professor of Experimental Psychology and teacher of the School of Criminology (Gutiérrez & Carpintero, 2004).

Meanwhile, the Psychology of Testimony was consolidated in the rest of Europe with more specific researches and publication of papers and handbooks. Thus, for example, Dupré (1910) published in France the paper entitled *Le témoignage*; Marbe (1913) published the book *Grundzüge Forensischen der Psychologie* (Principles of Forensic Psychology); in Belgium, Varendonck (1914) conducted several experiments on the suggestibility of the interviews while participating as an expert witness in a case of sexual abuse in 1911, publishing the results in a book entitled *La psychologie du témoignage*; in Luxembourg, Braunshausen (1915) collected in the handbook *Introduction to Experimental Psychology*, some of the most important experiments undertaken in the early twentieth century, noting the importance of the area at this early stage; and finally, in Germany, Stöhr (1911) published a specific manual entitled, *Psychologie der Aussage*.

In the U.S., Whipple compiled and translated into English major works on European Psychology of Testimony in the journal *Psychological Bulletin*. And as a result of the *National Conference on Criminal Law and Criminology*, held in 1909 and coordinated by Henry Wigmore, a leading figure in the promotion of criminology at U.S., the first issue of the *Journal of the American Institute of Criminal Law and Criminology* was published, with an international character. This journal would be key to the development of the Psychology of Testimony (Boring, 1916; Morgan, 1917).

After World War I, and in the twenties, the lie detection and identification procedures were the main topics of interest, as occurred after the Second World War. To this end, the first polygraph, initially designed for medical diagnosis, were beginning to apply to the forensic field (Larson, 1922). The same interest led to Goldstein (1923) and English (1926) to propose the measurement of reaction time to detect deception. In the thirties, Luria (1930) also took an interest in falsehood, and the *Journal of Criminal Law and Criminology* published a series of works among which were those of Inbau (1934), Keeler (1934) and Trovillo (1939a, b).

On identifications made by witnesses highlight a study which analyzed some of the main factors of the lineups, published by Gorphe (1930) in French, soon after translated and published in English. From an experimental point of view were particularly significant Varendonck experiments (1921) with simulated witness.

In any case, during the twenties and thirties, discipline continued to grow in Europe and USA. Gorphe (1924) presented and published his doctoral thesis entitled *La critique du témoignage*; Stern (1926) published a manual on juvenile witnesses in sexual abuse cases; Musatti (1931) published the paper entitled *Elementi di psicologia della testimonianza*; Mira (1932) wrote *Manual de Psicología Jurídica* in Spain; Lipmann (1935) posthumously published a paper on methods of assessing the accuracy of the statements of witnesses; and Kerdaniel (1936) published the paper entitled *Témoignages. La psychologie du témoin*.

In the U.S., Cady (1924) published an article entitled *On the psychology of testimony*, on the procedures for taking statements; Marston (1924) published a paper on the Psychology of Testimony in the *Journal of Criminal Law and Criminology*; Moore (1935) published an interesting study in the *Journal of Applied Psychology*, on the errors in the testimony; and, Howells (1938) conducted an interesting study on the ability to identify people.

Also in this decade, proposals for F.C. Bartlett to investigate memory processes with significant and complex material, in line with what earlier authors had worked on eyewitness memory, were particularly relevant. The work of Bartlett (1932), *Remembering*, turned out to be one of the inescapable reference for all researchers in the field from the seventies.

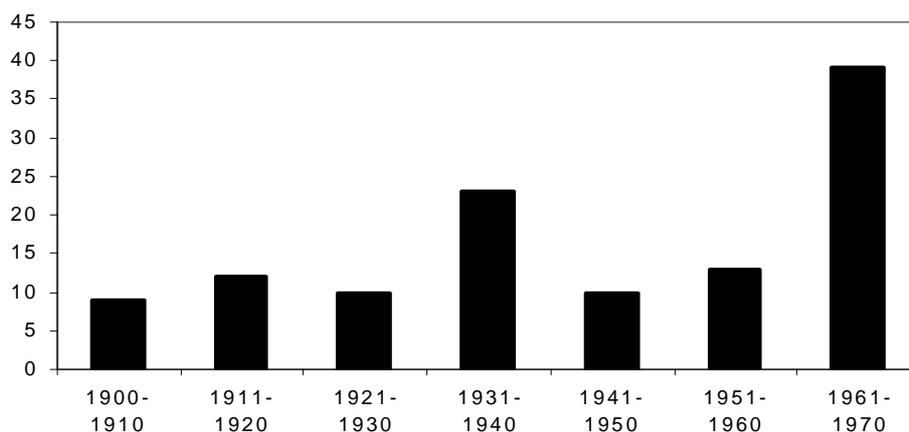
This spectacular growth of the Psychology of Testimony during these first decades of the twentieth century, which had led to the publication of numerous papers and journals, and the participation of specialists as expert witnesses and forensics, decayed as the thirties ending to the seventies (Wells and Loftus, 1984).

The development of Experimental Psychology and progress in social and individual rights during these years had been the main allies of the Psychology of Testimony. As noted above, most experimental psychology manuals and textbooks of memory of the time included a specific section on the topic, delving into issues such as lie detection and the accuracy of eyewitness memory.

THE CRISIS OF STUDIES ON THE PSYCHOLOGY OF TESTIMONY: BEHAVIORISM AND THE SECOND WORLD WAR

From the forties to late sixties, the psychology of testimony that had already claimed a boom at this age, virtually disappeared from academic and professional scene. The major milestones for the crisis in the Psychology of Testimony were the heyday of behaviorism, from a theoretical and experimental perspective, and the Second World War from an applied point of view. Studies on memory practically disappear, giving way to the study of learning. The troubled World during the war, and the next two decades, involving a loss of the Rights obtained in previous decades, determined the relevance of the topics of interest.

Figure 1. Number of publications on Psychology of Testimony per decade contained in the database of the APA, from 1900 to 1970.

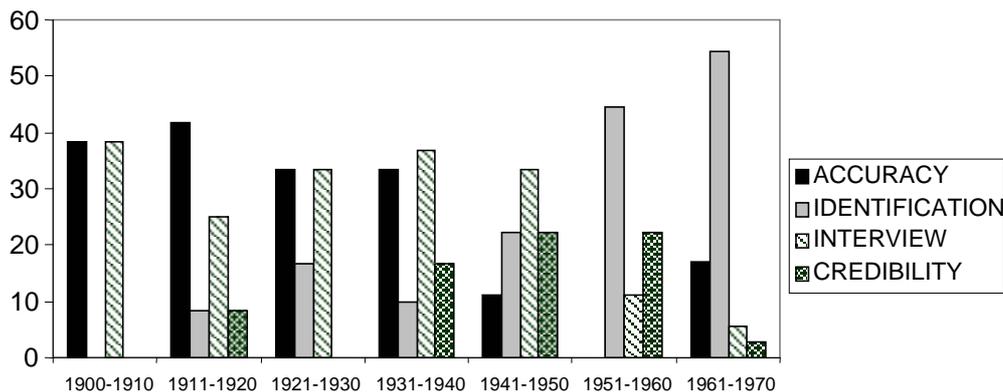


First debuggers, after trials of Nürnberg (1945-1949) in the years subsequent to the defeat of Nazism (Dodd, 1947) and finally the persecution of communism in the USA and the Cold War, marked the history of the area for three decades, due to the demands that were generated, to the forensic work on the evidence and to its media coverage.

Thus, in these dark years for the discipline, interest in the factors associated with the accuracy of eyewitness memory and the procedures for obtaining the statements, which had previously been relevant issues, were lost. By contrast, work on the

behaviors associated with falsehood and methods for its detection from a psychophysiological and behavioral point of view, acquired greater importance.

Figure 2. Percentage of publications on Psychology of Testimony by topic of interest listed in the database of APA, from 1900 to 1970.



RENAISSANCE: CHANGING THE PARADIGM AND SOCIAL RIGHTS

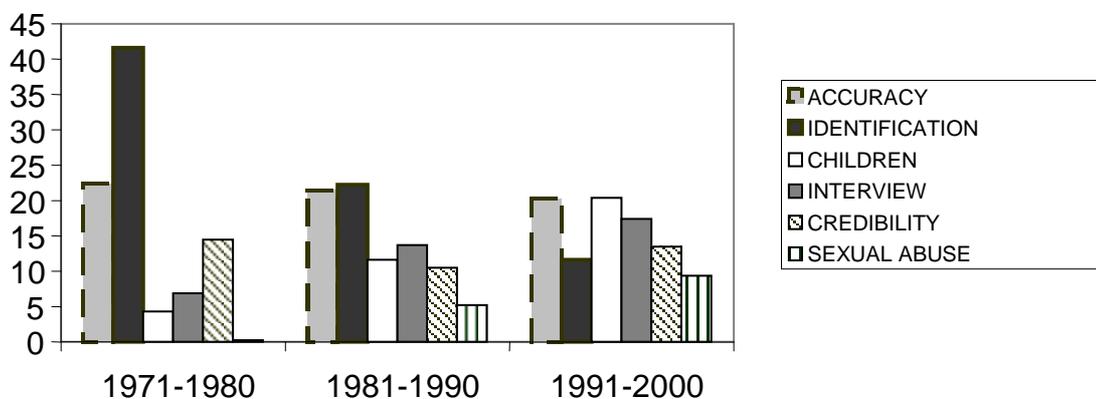
The birth of Cognitive Psychology (Neisser, 1967) as a new paradigm in scientific psychology meant to resume the work of the first three decades of the twentieth century. Again, the mental processes involved in witness memory turned to interest, and proposals for Bartlett (1932) on the study of memory were echoed. The technology was developed greatly during World War II and the Cold War, and new needs arose from the social point of view and the administration of justice.

The revival of the discipline come from the hand of researchers from the Anglo-Saxon traditions (Canada, USA and UK), which would be added shortly after German and Australian ones. One of the first papers claiming the study on the psychology of testimony was made by Buckhout (1974) entitled *Eyewitness Testimony* and published in *Scientific American*. But perhaps, Loftus (1979), a specialist in Psychology of Memory, was the driving force behind the renewed discipline, publishing a book that will mark a milestone, with the same title as the article by Buckhout, and where she

regained some of the most important studies in the early twentieth century and the decade of seventies. The same year, Yarmey (1979) published a book with similar content, *The psychology of eyewitness testimony*.

In these decades especially relevant themes emerged: false memories, children's testimony, credibility assessment (which replace those of lie detection) and identification of perpetrators. Loftus is one of the most important researcher who has worked on false memories and suggestibility in recent years. With regard to children testimony was particularly relevant the book by Ceci, Toglia, and Ross (1987), *Children's Eyewitness Memory*, which follows a monographic symposium organized by the American Psychological Association in 1985. On credibility analysis highlighted the works of Trankell (1972, 1982), Undeutsch (1984) and Steller (1989).

Figure 3. Percentage of publications on Psychology of Testimony by topic of interest listed in the database of APA, from 1970 to 2000.



Regarding identifications, a landmark came to revolutionize the area in the eighties: the DNA, which was proposed as proof of identification in 1984 by Alec Jeffreys. The first case of identification by DNA in a forensic context was to convict Colin Pitchfork in the murders of Narborough (UK) in 1983 and 1986. Its use spread, and soon a large number of cases in which innocent people were wrongly convicted of crimes were known. In most cases due to mistakes made by witnesses and victims who had mistakenly identified them (Wells, Small, Penrod, Malpass, Fulero and

Brimacombe, 1998). These false guilty amounted to a major wake-up call and the Psychology of Testimony came with force to try to explain these failures and to facilitate identification procedures to avoid them. In the decades of the seventies and eighties highlighted the work of the Americans R. Malpass and G. R. Wells and the British R. Bull, G. Davies, H. Ellis and J. W. Shepherd on the role that different variables play in the accuracy of identifications. V. Bruce (1988), also from UK, was one of the leading figures in research on the process of identifying people. The book published by Wagenaar (1988) entitled *Identifying Ivan*, on the identification of Nazi war criminal known as Ivan the Terrible, marked the way to go to avoid false guilty.

Thus, during the seventies and eighties there was an explosion of the Psychology of Testimony involving the publication of many studies, the convening of meetings and specialized conferences and the creation of associations, and academic and professional committees.

First International Conference on Practical Aspects of Memory held in 1976, was an approximation to what thereafter would be one of the main applications of studies on the Psychology of Memory. In this, papers on Eyewitness Memory (Gruneberg, Morris, and Sykes, 1978) were included. The second conference, held in Swansea (United Kingdom) in July 1987, confirmed the significant growth of the discipline. A year later, in June 1988, NATO sponsored in Maratea (Italy) an international meeting on what in the nineties was one of the key issues in the area: the credibility assessment. This meeting brought together some of the most important researchers in the field from Europe and North America (plus some Israeli and Australian ones). It was here, and in the proceedings of the meeting published by Yuille (1989), where the procedures developed for the analysis of the credibility of the statements in sexual abuse cases were disclosed to the reader in English. These procedures have resulted in a significant body of research during the 90's and early twenty-first century. Also in 1988, held the *First European Conference on Law and Psychology*, Maastricht (Netherlands), with the participation of researchers from Spain, Germany, Holland, Portugal, United Kingdom and guests from Canada, USA and Australia.

The nineties accounted for the consolidation of work in Psychology of Testimony with the creation of international associations such as the *European*

Association of Psychology and Law, who was conceived during the *Second European Conference on Law and Psychology* held in Nürnberg (Germany) 1990 and was founded in 1992 in the conference in Oxford (United Kingdom).

It is also from the nineties, when the Psychology of Testimony was included as an important area in any of the conferences and meetings that have taken place since then (for example, in the *XXIII International Congress of Applied Psychology*, in 1994 in Madrid and where papers were presented from cultures as far away as Japan). It also marked the introduction of courses on Psychology of Testimony in the curriculum of undergraduate and graduate programs in psychology in Europe and America, and the publication again of journals specialized in the area.

A search of the databases of Google Scholar (which also includes other databases such as JSTOR, PsycINFO and APA)¹ shows the importance of the area in some of the most important international scientific publications on general and forensic psychology (see Table 1).

At the time, lawyers and international legal systems recognized the Psychology of Testimony as one of the most important areas in forensic psychology along with the clinical diagnosis. Expert Witnesses, Psychology of Testimony specialists, began to participate more and more common in trials advising the courts on the operation of cognitive processes and their involvement in the statements of witnesses to aid the assessment of the evidence for judges and juries. Most of their performances dealt expertise in the field of the credibility of the testimony and evidence of identification line-ups.

¹ Search field: eyewitness AND deception OR lie OR testimony OR face OR memory

Table 1. Major international journals where papers in Psychology of Testimony are currently published, year of founding, year of publication of the first paper on testimony and number of published articles on the area since its founding (own development).

	<i>Year of 1st paper</i>	<i>Number of papers</i>
GENERAL PSYCHOLOGY		
Acta Psychologica (1936)	1982	38
American Journal of Psychology (1887)	1889	73
American Psychologist (1946)	1974	99
Applied Cognitive Psychology (1987)	1992	233
Cognition (1972)	1981	26
Cognitive Psychology (1970)	1975	225
Developmental Psychology (1969)	1986	118
European Journal of Cognitive Psychology (1989)	1989	28
Journal of Applied Psychology (1917)	1935	309
Journal of Experimental Psychology: General (1916)	1983	59
Journal of Experimental Psychology: Learning, Memory and Cognition (1975)	1977	127
Journal of Experimental Psychology: Applied (1995)	1995	61
Journal of Memory and Language (1966)	1992	55
Journal of Personality and Social Psychology (1965)	1970	83
Memory (1993)	1993	52
Memory and Cognition (1973)	1983	102
Personality and Individual Differences (1980)	1984	39
Psychological Bulletin (1904)	1909	53
Psychological Review (1894)	1904	34
Psychology and Aging (1986)	1988	75
The Quarterly Journal of Experimental Psychology (1948)	1976	20
Total in journals on general psychology	1889	1909
FORENSIC PSYCHOLOGY		
American Criminal Law Review (1962)	1994	26
European Journal of Psychology Applied to Legal Context (2009)	2009	6
Expert Evidence: The International Digest of Human Behaviour, Science and Law (1992)	1994	26
Journal of Criminal Law and Criminology (1910)	1911	137
Law and Human Behavior (1977)	1977	387
Psychology, Crime and Law (1994)	1994	120
Psychology, Public Policy and Law (1995)	1995	108
Total in specific journals on forensic psychology	1911	810
Total	1889	2719

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