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Canadian Journal of (Experimental) Psychology: The First 70 Years

Colin M. MacLeod
Department of Psychology, University of Waterloo

This article presents a survey of the first 70 years of this journal, covering (a) the origin and subsequent history of the journal, (b) who the Editors have been, (c) how the Editors have influenced the journal, (d) the most highly cited articles, and (e) consideration of the journal's content. After shifts in its purpose over its first two decades, the journal settled into being an outlet that is well respected around the world for research in the field of human experimental psychology.

Public Significance Statement
This article documents the history of this journal over its first 70 years. Coverage includes (a) the origin and subsequent history of the journal, (b) who the Editors have been, (c) how the Editors have influenced the journal, (d) the most highly cited articles, and (e) consideration of the journal's content.

Keywords: history, journal, impact, editors, citations

My goal in this article is to present a portrait of the first 70 years of this journal, from 1947 through 2016. I will describe how the journal began and how it developed, sketch who the Editors have been and how they have influenced the journal, and summarize the most influential articles and examine the content of the journal over the 70 years.

The Origin and History of the Journal

The *Canadian Psychological Association* (*CPA*) traces its creation to June 1938 and to the gathering in Ottawa of a group of some 40 psychologists there to attend a meeting of the *American Association for the Advancement of Science*. In agreeing to establish a society for Canadian psychologists, they elected a provisional executive from across Canada. The key players gathered again in April 1939 at the University of Toronto for an organizational meeting. In 1940, Edward Alexander (Ned) Bott of the University of Toronto became the first President (for more on Bott, see Myers, 1974). In December 1940, a draft constitution—prepared by John Malcolm MacEachran of the University of Alberta (for more on MacEachran, see Hough, 1972)—was adopted. The stated objectives of the new society began with "to organize and promote, by teaching, discussion and research, the advancement and practical application of psychological studies in Canada; to issue such publications as may from time to time be considered necessary and feasible" (Conway, 2010, p. 20). Dzinas (2000) thoroughly documents these beginnings (see also Conway, 2010).

The first publication of this new association was *The Bulletin of the CPA*, initially under the editorship of Donald Olding Hebb, then of Queen's University (for more on Hebb, see Beach, 1987; Mogenson, 1988) and subsequently under the editorship of John A. Long (for more on Long, see "The Editors" section below). The *Bulletin of the CPA* was intended both to report news relevant to the association and to publish research reports, given the growth of research in Canadian Departments of Psychology. Its first issue appeared in December 1940. According to Conway (2010), over the period 1940–1947, there were 28 issues forming 6 volumes of this bulletin; they contained a total of 66 research articles.

In 1947, responding primarily to the interest of *CPA* members in having a journal outlet for psychological research in Canada, *CPA* began publishing the *Canadian Journal of Psychology*, with the first issue appearing in March 1947. The journal was issued quarterly and was published for *CPA* by the University of Toronto Press, which shared the cost of publication with *CPA*. Carrying on from *The Bulletin of the CPA*, the inaugural Editor of *CJP* was John A. Long, with an Assistant Editor and a group of five regional sub-editors. *CPA* also established a Publication Committee responsible for the journal.

As the only publication of the association, *CJP* initially published information relevant to the organization in addition to research

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Colin M. MacLeod https://orcid.org/0000-0002-8350-7362
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Correspondence concerning this article should be addressed to Colin M. MacLeod, Department of Psychology, University of Waterloo, Waterloo, ON N2L 3G1, Canada. Email: cmacleod@uwaterloo.ca

articles. The journal was, however, intended "to provide a much more adequate medium for the publication in Canada of scholarly and scientific works" as then CPA President Karl S. Bernhardt (1947, p. 1) stated in his foreword to the first issue. The breadth of the discipline and hence of the journal is evident in the first issue, which began with an article by Bott (1947) discussing the certification of psychologists. There also were articles of relevance to the profession, as in observations on employment testing by Moore (1947). The first article reporting empirical data was a brief account by Morsh and Stannard (1947) of a new test for measuring ability to receive Morse code that had a reliability of at least .90. But that was as far as empirical work went: There were no experimental or correlational research projects reported in that first issue.

The first experimental report actually had to await the third issue. Cook (1947) reported on an experiment in which participants learned to trace a pattern reflected in a mirror. When the mirror position remained constant, he observed a smooth, negatively accelerated improvement with practice in the control group. In contrast, in groups for whom the mirror position was changed during learning in several different ways, he observed different patterns of performance cost. He characterized the costs caused by changing the mirror's position as due to proactive interference from the learning done in a different position on preceding trials.

From the beginning, the journal has published in both of Canada's official languages. The first research article published in French was by Mathieu-Fortin (1949). Interestingly, it was headed by an abstract in English; abstracts were otherwise not included with articles. Her article applied the Rorschach test to an anthropological study of personality in the "peasant society" of l'Isle Verte, on the south shore of the Saint Lawrence River on the Gaspé peninsula in Quebec. Together with Cook's (1947) article, these two articles certainly represent the broad range of the research published in *CJP* in its early years.[1]

CJP has changed considerably through the years. In part, these changes have resulted from *CPA*'s creation of other publication venues along the way. Recognizing that *CJP* had become primarily an outlet for researchers working in the areas supported by what are now Natural Sciences and Engineering Research Council (NSERC) grants (or the equivalent), *CPA* created a second journal to serve researchers working primarily in the areas supported by what are now Social Sciences and Humanities Research Council (SSHRC) grants (or the equivalent).[2] The *Canadian Journal of Behavioural Science* (inaugural Editor: Arthur M. Sullivan) debuted in 1969. As a consequence, *CJP* narrowed its focus to primarily experimental psychology and, within that remit, largely to research in the realm of human experimental psychology.

To provide a home for articles relating to the profession and for presidential addresses, book reviews, and the like, *The Canadian Psychologist* (initially edited by J. Garneau and E. Poser) began publishing in 1950. It was renamed *Canadian Psychologist/Psychologie canadienne* in 1964, *Canadian Psychological Review* in 1975, and finally *Canadian Psychology/Psychologie canadienne* in 1980. As the third *CPA* journal, its focus was on discipline-wide articles. *The Bulletin of the CPA* was re-established in 1971 as the *CPA Bulletin* and continued until 1979, when it was replaced by *CPA Highlights/l'Actualité psychologique*, which was in turn replaced in 1989 by *Psynopsis*. This chain of "in house" publications, which worked its way toward a name that suited both official languages, has provided a place for *CPA*-related material to be disseminated.

Indexed until 1972 only as *Canadian Journal of Psychology*, the journal then became indexed as *Canadian Journal of Psychology/Revue canadienne de psychologie* from 1972 to 1992. In 1993, *CJP*'s name was changed to better reflect its content: It became *Canadian Journal of Experimental Psychology/Revue canadienne de psychologie expérimentale*. In 2007, a publishing arrangement was negotiated with the *American Psychological Association*; since 2008, the three *CPA* journals have all been *APA* publications.

With the establishing of the *Canadian Society for Brain, Behaviour, and Cognitive Science* (*CSBBCS*) in 1990, their very related missions led to a close connection between the new society and the journal. Since then, the Editors have all been members of *CSBBCS* and of *CPA*, and many of the articles published in the journal have been by *CSBBCS* members. For a while, the abstracts of the annual meeting of *CSBBCS* were even published in the journal. In 2008, following discussions between the executives of *CPA* and *CSBBCS*, *CJEP* began to be published as a partnership between the two societies, a partnership that has continued to the present.

CJEP is well known nationally and internationally, and currently has an Impact Factor (IF) of 1.383.[3] Using the Scimago Journal Rank (SJR) citation index, it is in Q2, the second quartile (between 25% and 50%) of journals in its sub-discipline. In short, the journal is well respected. It is comparable in impact to other national/regional English-language psychology journals, such as the *American Journal of Psychology* (established 1887, IF = 1.063; Q2), the *Australian Journal of Psychology* (established 1949, IF = 1.486; Q2), and the *Scandinavian Journal of Psychology* (established 1960, IF = 1.570; Q1), with only the *British Journal of Psychology* (established 1904, IF = 3.239; Q1) showing significantly higher impact.

To characterize rather actuarially the contents of the journal over the 70 years, Figure 1 displays the number of articles published per year, together with the number of pages published each year. The total number of articles is 2608; the mean number annually is 37.26. Number of articles and number of pages annually are only moderately correlated, $r = .44$; this appears to be due in part to the much shorter articles in the early years. At present, *CJEP* publishes approximately 28–30 articles annually, or about 7–8 articles per quarterly issue, a small subset of these in French and the rest in English.

The Editors

Over the first 70 years of the journal, there were 15 Editors. Their names, affiliations, and terms are presented in Table 1 and their photographs appear in Figure 2. Although there was a little variation, their terms were typically 4–6 years. Their domains of primary

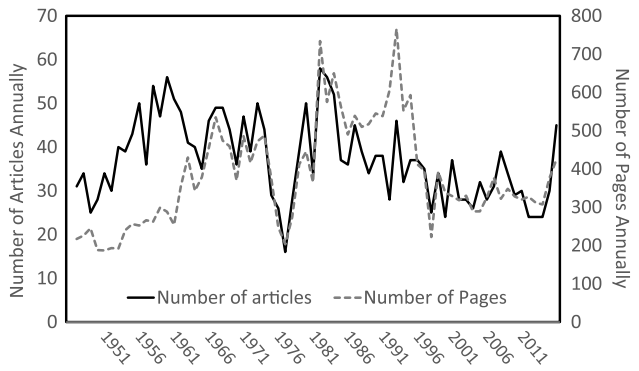
[1] By citing these two articles here, according to *Web of Science* data, total citations of Cook's article increase from zero to one and of Mathieu-Fortin's article from one to two.

[2] In 1969, NSERC was the National Research Council and SSHRC was the Canada Council.

[3] From one article (4% of all articles that year) originating outside Canada in 1947, international articles in the journal rose to 18% by 1957 and to 35% by 1967, and since then have settled to an annual average of about 27%.

Figure 1

Number of Articles and Pages Published in the Canadian Journal of (Experimental) Psychology for Each of the 70 Years 1947–2016



expertise varied in the early years but, as already mentioned, they have been from the realm of human experimental psychology since the mid-1970s. Nine of the first ten Editors were based at Ontario universities; this is changing in that the last five Editors in this 70-year period came from four different provinces.

In this section, a biographical sketch of each Editor is provided, followed by a consideration of the influence of the Editors in shaping the journal content.

John Alexander Long

John Long was born on July 17, 1891, in Walkerton, Ontario. He did his BSc in Mathematics and Physics at McMaster University, graduating in 1915. After World War I service, he did his PhD in Educational Psychology at Columbia University under the supervision of Rudolf Pintner, graduating in 1931. He then took up a position at the Ontario College of Education in the Departments of Education Research and Psychology of Education, and became Director of the Department of Educational Research, part of the University of Toronto, in 1942. In 1953 he became Chair of the Board of Education for Metropolitan Toronto. He died on March 18, 1957, in Toronto.

John Davidson Ketchum

Dave Ketchum was born on June 10, 1893, in Cobourg, Ontario. Having first studied piano at the University of Toronto, he was continuing his music studies in Germany when World War I began, resulting in him being a prisoner of war from 1914 to 1918. After the war, he completed his undergraduate education at Toronto in History and English, graduating in 1922. His graduate education continued at the University of Toronto, with an MA in social psychology in 1926 and then further graduate work in sociology at the University of Chicago, although he did not complete a PhD. He took up a lecturer position at the University of Toronto in 1926 and then became a professor in 1934, staying in Toronto for his entire academic career. He was President of CPA in 1950 and was elected Fellow of the Royal Society of Canada in 1960, the second psychologist so honored. He died on April 24, 1962, in Toronto.

Julian Murray Blackburn

Julian Blackburn was born on December 5, 1903, in Hove, England. He completed a BSc in Economics at the London School of Economics (LSE) in 1928 and then did his PhD at Cambridge University under the supervision of Frederick C. Bartlett, graduating in 1933 as a social psychologist. After a 1-year postdoc at Yale and a post at the Medical Research Council (1935–1938), he was a Lecturer at the LSE from 1939 to 1948. He moved to McGill University for 1 year, and then to Queen's University, where he was on faculty from 1949 to 1965. His final faculty position was at Trent University from 1965 to 1973. He died on September 19, 1974, in Peterborough, Ontario.

Percy Lynn Newbigging

Lynn Newbigging was born on April 14, 1925, in Davidson, Saskatchewan. After service in World War II, he completed his BSc in Biology at the University of Saskatchewan in 1948. He received his MA in experimental psychology from the University of Toronto in 1950. He then did his PhD at University College, London, under the supervision of R. W. Russell, graduating in 1952. He returned to Canada to a 1-year position at Acadia University and then moved to the University of New Brunswick in 1953. He moved to McMaster University in 1955, where he spent the rest of his career. His area of expertise was sensation and perception, especially perceptual variability. Newbigging died in Hamilton on January 7, 1994.

Gordon James Mogenson

Gordon Mogenson was born in Delisle, Saskatchewan on January 24, 1931. He did his Bachelor's (1955) and Master's (1956) degrees at the University of Saskatchewan. He then completed his PhD at

Table 1

The Editors of the Canadian Journal of (Experimental) Psychology From 1947 to 2016, With Their Terms

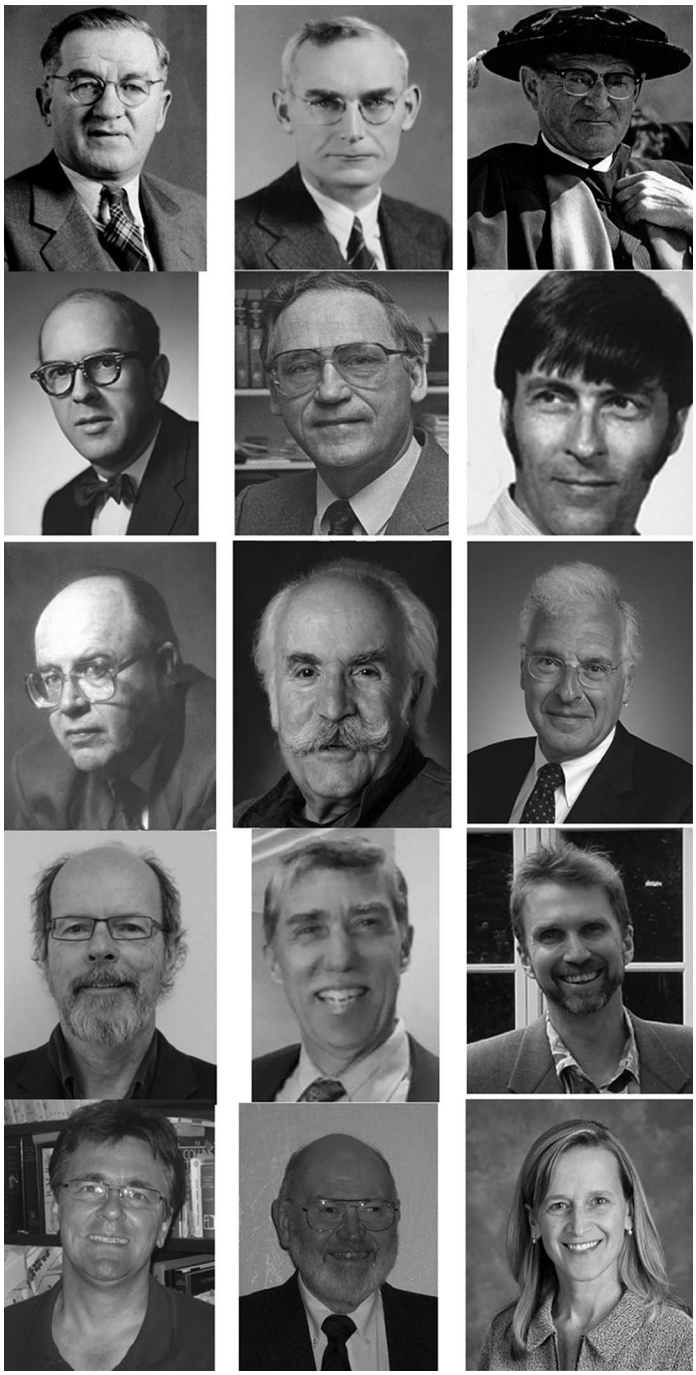
Editor	Affiliation	Term
John A. Long	University of Toronto	1947–1952
J. D. Ketchum	University of Toronto	1953–1958
Julian M. Blackburn	Queen's University	1959–1965[a]
P. L. Newbigging	McMaster University	1965–1968[a]
G. J. Mogenson	University of Western Ontario	1969–1973
Peter C. Dodwell	Queen's University	1974–1980
M. Philip Bryden	University of Waterloo	1981–1985
Vincent Di Lollo	University of Alberta	1986–1989
Gordon Winocur	Trent University	1990–1993
Colin M. MacLeod	University of Toronto	1994–1997
Murray Singer	University of Manitoba	1998–2001
Peter Dixon	University of Alberta	2002–2005
Simon Grondin	Université Laval	2006–2009
Douglas J. K. Mewhort	Queen's University	2010–2013
Penny M. Pexman	University of Calgary	2014–2018

Note. The terms listed above represent the years in which each Editor's name appeared on the cover of the journal; these are generally offset 1 year later from the actual editorial term.

[a] Julian Blackburn and Lynn Newbigging were both listed as Editors in 1965.

Figure 2

The Editors of the Canadian Journal of (Experimental) Psychology, 1947–2016 (Left to Right, Top to Bottom, in Order of Editorial Term)



Note. The dates on which these photos were taken do not always correspond with the periods of their editorial terms. The photos of John A. Long and J. D. Ketchum were provided (with permission) by the University of Toronto Archives, with thanks to Tys Klumpenhouwer (archivist). The photo of Julian Blackburn was provided (with permission) by Trent University, with thanks to Jodi Aoki (Archivist) and Hugo Lehmann (department chair). The photo of P. L. Newbigging was provided (with permission) by the McMaster University Photograph Collection, McMaster University Library, with thanks to Bruce Milliken (department chair) and Renu Barrett (archivist). The photo of Gordon Mogenson was provided (with permission) by Melvyn Goodale (colleague). The photo of Peter Dodwell came from the website of the Department of Psychology, Queen's University. The photo of M. P. Bryden was provided (with permission) by Patricia Rowe (spouse). The photo of D. J. K. Mewhort was provided (with permission) by Elizabeth Johns (spouse). The rest were provided (with permission) by the Editors themselves.

McGill University in 1959, under the supervision of D. O. Hebb. From 1958 to 1965, he was on faculty at the University of Saskatchewan. He then took up a faculty position in both Physiology and Psychology at the University of Western Ontario in 1965, where he spent the rest of his career. At Western, he chaired the Department of Physiology. He was elected Fellow of the Royal Society of Canada in 1984 for his influential work on the neural substrate of motivation, particularly the regulation of eating and drinking. He died in London on November 5, 1991.

Peter Carpenter Dodwell

Peter Dodwell was born in Ootacamund (Udhagamandalam), India on March 13, 1930. He studied philosophy and psychology at the University of Oxford, earning his BA in 1954. His MA and DPhil were conferred in 1959; his graduate supervisors were R. C. Oldfield and Lawrence Weiskrantz. His first position was at Birkbeck College, University of London (1955–1958). He then moved to Queen's University where he spent the rest of his career (1958–1993), serving as department Head from 1972 to 1981. His field of study was perception, particularly vision, which he examined from both psychological and philosophical perspectives. He was President of *CPA* in 1985 and elected Fellow of the Royal Society of Canada in 1989. He died on September 19, 2006, in Victoria.

Mark Philip Bryden

Phil Bryden was born on November 14, 1934, in Waltham, Massachusetts. He did his BS at the Massachusetts Institute of Technology, graduating in 1956. He then did his MSc (1958) and PhD (1961) at McGill University, the latter supervised by D. O. Hebb. He moved to the University of Waterloo in 1963, where he spent his entire career, including a term as Associate Dean, Graduate Studies, in the Faculty of Arts. He was elected Fellow of the Royal Society of Canada in 1996 for his research on the lateralization of brain function and handedness. He died on August 18, 1996, in Montréal.

Vincent Di Lollo

Vince Di Lollo was born in Gorizia, Italy on October 14, 1930. As a teenager, he moved to Australia where he completed both his BA (1959) and PhD (1962) at the University of Western Australia, the latter under the supervision of James Lumsden. After 3 years of postdocs in the US, he returned to the University of Western Australia as a faculty member. He then moved to the University of Manitoba from 1975 to 1978 and to the University of Alberta from 1978 to 1996. Following retirement from Alberta, he moved to the University of British Columbia from 1996 to 2004, and has been at Simon Fraser University since then. He was President of *CSBBCS* in 1996–1997. Noted for his work in vision and visual attention, he was elected Fellow of the Royal Society of Canada in 1997.

Gordon Winocur

Gordon Winocur was born in Winnipeg on October 7, 1941. He earned his BA (1962) and MA (1964) at the University of Manitoba and completed his PhD at the University of Waterloo in 1966, under the supervision of Eric Salzen. His first faculty position was at the University of Saskatchewan (1966–1971); from there he moved to Trent University (1971–1991). He has been at the University of Toronto, based primarily at the Rotman Research Institute in Toronto, since 1991. He served as Scientific Director, Alzheimer Society of Canada (2001–2003) and as Vice-President of Research, Baycrest Centre for Geriatric Care (2004–2007). His research is in the field of behavioral neuroscience, examining the relation between neural systems and cognition, particularly with respect to memory.

Colin Munro MacLeod

Colin MacLeod was born on March 5, 1949, in Montréal. He did his BA at McGill University, graduating in 1971. He then did his PhD at the University of Washington, supervised by Thomas O. Nelson, and graduated in 1975. After a 3-year postdoc with Earl Hunt at the University of Washington, he took up his first faculty position at the University of Toronto, Scarborough Campus, in 1978. There he served as Chair of the Division of Life Sciences (1994–1998) and as Vice-Principal of the College (1998–2000). In 2003, he moved to the University of Waterloo, where he also served as Chair (2012–2019). He was President of *CSBBCS* in 2009–2010. In 2016, he was elected Fellow of the Royal Society of Canada in recognition of his research in the realm of attention, learning, and memory.

Murray Singer

Murray Singer was born in Montréal on March 20, 1947. He did his BSc at McGill University, graduating in 1968. He then did his MS (1970) and PhD (1973) at Carnegie Mellon University, under the supervision of John R. Hayes. From there, he moved immediately to the University of Manitoba, where he served on faculty from 1973 to 2015 and was confirmed as Professor Emeritus upon retirement. He was President of *CSBBCS* in 2004–2005. His expertise is in the domain of language processes, comprehension, inference, and memory.

Peter Dixon

Pete Dixon was born in Oakland, California, on July 7, 1952. He earned his AB at Stanford University in 1975 and his MS (1976) and PhD (1979) at Carnegie Mellon University, supervised by Marcel Just. Following a 2-year postdoc at Bell Laboratories, he took up a faculty position at the University of Alberta, where he has spent the balance of his career. He was President of *CSBBCS* in 2010–2011. His expertise is in psycholinguistics, discourse processing, attention, vision, motor control, and statistical methods.

Simon Grondin

Simon Grondin was born in Lac-Mégantic, Québec, on November 26, 1959. He did his undergraduate studies at Université de Sherbrooke, graduating in 1981. He received his PhD from Université Laval in 1988, supervised by Robert Rousseau. After an initial faculty position at Université Laurentienne (1988–1996), he returned to Université Laval where he has spent the rest of his career. His research expertise includes timing and time perception, as well as psychophysics.

Douglas John Kerr Mewhort

Doug Mewhort was born on January 14, 1942 in Toronto. After attaining the ARCT in music at the Royal Conservatory of Music in Toronto in 1960, he did his BA at the University of Toronto (1964) and then his MA (1965) and PhD (1968) at the University of Waterloo, under the supervision of M. Philip Bryden. He then immediately took up a faculty position at Queen's University where he spent his entire career. He was *CSBBCS* President in 2007–2008. His expertise was in the realm of computational modeling of cognitive processes and in statistical methods. He died in Kingston, Ontario on February 28, 2019.

Penny Marion Pexman

Penny Pexman was born in London, Ontario in 1970. She earned her BA (1992) and her PhD (1998) at the University of Western Ontario, the latter supervised by Stephen Lupker. She moved immediately to the University of Calgary where she has spent her entire career. She was President of *CSBBCS* in 2013–2014. At Calgary, she currently serves as Associate Vice President Research. Her expertise is in language and psycholinguistics, from both behavioral and neuroscience perspectives.

The Influence of the Editors

How have the Editors helped to shape the journal and its content? In the early years, the intended breadth of the content was evident in Long's opening note to contributors that "it will not be devoted exclusively to any particular branch or branches of psychology" (Long, 1947, p. 2). He did suggest a length limit of 5,000 words although that disappeared over the years. A year later, the editorial team provided a more detailed statement of policy (The Editors, 1948, pp. 185–186), reinforcing that content should "reflect the varied interests of the entire C.P.A. membership" but also soliciting "material likely to appeal widely to readers." They also requested "clarity of expression," certainly a clarion call for Editors of any journal. And in an appeal that would be repeated by Editors over the years, they maintained that "the publishing of challenging and important articles in a Canadian journal is one of the surest means of promoting the prestige and progress of psychology in Canada."

In taking over, Ketchum (1953, p. 98) indicated that the flow of submissions was increasing, leading him to hope that "as it continues to increase, the standard of publication will rise, and we may at length attain that luxury of the well-to-do—a clear and distinctive editorial policy." He, too offered a few tips for manuscript preparation, focusing on clarity, and moved the journal to APA format for references (1953, p. 155). In thanking Ketchum for his time as Editor, Bindra (1958, p. 99) noted that "there has been a remarkable increase in the number of articles submitted for publication, in the proportion of articles rejected, in the number of articles submitted from outside Canada, ... and, most important, in the quality of the papers published." The journal was now successful.

The practice of including an incoming editorial disappeared for the next three Editors as the journal settled into "business as usual." This practice returned with Dodwell's (1975) editorial in which he recognized that the broad mandate of the journal was no longer appropriate given the emergence of the two other *CPA* journals. He characterized the domain of *CJP* as now being human experimental psychology but asked that this "be not too narrowly defined" (p. 1). He also specifically encouraged theoretical and review submissions in addition to the typical empirical papers. And he introduced the "distinguished contribution" series of articles from leading Canadian researchers. Bryden (1982) reaffirmed the journal's domain, explicitly aligning its mandate with that of NSERC's experimental psychology committee. He also renewed Long's initial appeal to Canadian researchers, writing "I would hope to encourage Canadian experimental psychologists to take pride in their journal, and submit their quality work to it" (p. 1). He also was the first to encourage special issues on topics of broad interest, and to solicit short reports of 2,500 words or fewer.

Di Lollo did not write an editorial but every new Editor since then has done so. Winocur (1989) reasserted the principles described by his immediate predecessors, again calling for theoretical and review submissions. He also promised one special issue per year, a way of recognizing Canadian research programs and simultaneously of attracting attention to the journal. He noted the narrowing of content to primarily the cognitive area and invited researchers in other areas of human experimental psychology to contribute. Under MacLeod's (1993) editorship, the name of the journal was changed to better reflect its content, and the submission and review processes became electronic. Members of *CSBBCS* and *CPA* were particularly encouraged to support the journal: "If we each send *CJEP* a paper now and then, given the impressive productivity of experimental psychologists in Canada, we will have a healthy and respected journal" (p. i).

Singer (1998) re-emphasized the importance of clarity of presentation and provided guidance on paper preparation, notably with regard to data analysis. Dixon (2002) urged, as his predecessors had, a broader interpretation of "experimental psychology." He also highlighted the importance of theoretical advancement, not just good empirical work. And he noted that the journal should "represent the contributions of experimental psychology in Canada." Grondin (2006) introduced a new tradition of an annual article by the recipient of the *CSBBCS* Donald O. Hebb Distinguished Contribution Award; he also broadened the editorial board to contain international representation.

Mewhort (2010) emphasized the importance of a Method section that supported potential replication. The first to write an outgoing editorial as well, Mewhort (2013) lamented the absence of neurophysiological research in *CJEP*, repeating Hebb's (1958) argument that behavioral and neurophysiological research necessarily constrain each other and hence should make contact in the journal. The final Editor in this 70-year period, Pexman (2014) upheld the conception of the journal that had been in place at least since the time of Dodwell's editorship. In her outgoing editorial (Pexman, 2018), she noted changes introduced during her term, notably the addition of Open Science Framework badges and the inclusion of public significance statements.

In sum, the Editors have maintained a tradition of excellence in the realm of human experimental psychology, such that *CJEP* represents that domain of research well, particularly with respect to the cognitive realm. Changes over the years have been gradual, "tuning" the journal to the times. While it is still true that the journal would do well to attract research beyond the confines of cognitive psychology, and that not enough articles of a purely theoretical or review nature are received, the quality of the published articles is high, with many coming from the Canadian research community but a significant number also coming from international investigators.

The Editors have always listened to the community of researchers and have endeavored to ensure that their journal is one that they can be proud of.

The Most Influential Articles

Citation data were downloaded from the *Web of Science* database. Table 2 shows the 25 most-cited articles in the first 70 years of the journal, each with total citations exceeding 200. In addition to the primary ranking by total number of citations, and in an effort to "normalize" for an article's "age," Table 2 also presents total number of citations divided by the number of years since publication, resulting in mean number of citations per year. This creates a somewhat different ranking of the most-cited articles, but the two measures of rank are certainly positively correlated, $r_s = .66$.

Only two authors' names occur more than once in the list: Doreen Kimura and Fergus Craik. Especially impressive is the fact that three of the top 25 articles were sole-authored by Kimura (numbers 1, 4, and 15). The article by Masson and Loftus (#3) has the highest mean number of citations per year and, given its recency, appears poised to move to the top position in the most-cited list in the coming years. It is also clear that the top-cited articles cover a broad range of research in psychology, which is indeed representative of the content of the journal as a whole, particularly in the more distant past.

Consideration of the Journal's Content

Listing the most cited articles certainly provides one kind of information about the journal's most influential content, but that information is necessarily limited. In this final section, I will consider the content in more detail, delving deeper into its influence. Along the way, I will also point to a couple of "hidden gems" and discuss the journal's most loyal supporters.

The first paper to make a "splash" (now cited 280 times) was that of Rabinovitch and Rosvold (1951). As is often the case among highly-cited articles (see MacLeod, 2021), this was a method article, describing a training plus testing procedure and apparatus for use with rats. The other two categories of articles that tend to be highly cited are statistical procedures and, especially, review articles. The "top 25" includes entries in both of these categories, notably Paivio's (1991) review of dual coding theory and the Masson and Loftus (2003) article on the use of confidence intervals, an article which has significantly influenced how investigators present their data. Articles that introduce a new paradigm or modify one that is widely used are also likely to be influential: Examples in the "top 25" include Jacoby and Witherspoon (1982), Brooks (1968), and Cheesman and Merikle (1986). Finally, "big picture" articles that provide a broader perspective on a domain of research also tend to be relatively highly cited, as is the case for the articles by O'Regan (1992), Krumhansl (1997), Evans et al. (2000), Campbell and Graham (1985), Jonides (1980), and Logan (1985).

Two early articles that qualify as hidden gems and that bear reading are thoughtful treatments of learning and ability and their relation by Ferguson (1954, 1956). He sketches out a theory relating these concepts and dealing with the roles of environment and culture in learning, and in so doing raises a number of still interesting issues.

Much of the initial influential work in *CJP* was on perception, in keeping with the times. In the category of hidden gems, the earliest one—perhaps not all that well hidden given that it is on the "top 25" list—is the work of Bexton et al. (1954), one of the first major reports of the consequences of sensory deprivation, a line of research begun by Hebb at McGill in 1951. Bexton et al. reported on the intellectual costs of sensory isolation, including the prevalence of hallucinations. They followed this up (Scott et al., 1959) by comparing non-isolated to isolated individuals, demonstrating cognitive costs of isolation both during and after the experience.

Also inspired by Hebb's research, and conceptually related to sensory isolation, was the McGill work on stabilized retinal images, in which images were projected onto the retina with no possibility of eye movements altering their location (Pritchard et al., 1960). Based on subjective reports, these images broke down in ways that preserved elements, which fit well with Hebb's (1949) cell assembly theory. Related studies out of the McGill laboratories include Cohen (1961) and, a little less directly related, Kimura (1959) and Bryden (1960), all reported in *CJP*.

Around the same time, Mooney (1956, 1957a, 1957b, 1957c) reported a series of experiments on closure using black-and-white shadowed faces (as well as non-face false items), materials that he had constructed and that participants had to identify and describe to show that they perceived them correctly—that they had experienced closure. These materials continue to be used by researchers to this day, and are quite widely known, as indicated by the Wikipedia page devoted to them (https://en.wikipedia.org/wiki/Mooney_Face_Test).

In the 1960s, Murray (1967) published an article that has often been described (although not always cited) as the first to employ the articulatory suppression procedure. The idea is to tie up working memory by repeated production of irrelevant speech while performing some focal task and to determine the consequences of this additional activity. Murray reported an interaction between phonological similarity and articulatory suppression, a key finding relied on 7 years later by Baddeley and Hitch (1974) in proposing their model of working memory. Articulatory suppression has continued to be a tool in the study of memory phenomena.

A considerable amount of research related to the skill of reading has also appeared in the pages of the journal over the years. Kimura's (1961) top-ranked article and the more recent Evans et al. (2000) article in the "top 25" are only the most visible instances of this work. Another hidden gem is the work of Kolers and colleagues (Kolers, 1974, 1979; Kolers & Magee, 1978; Kolers & Smythe, 1979). In this work, which elegantly mixes novel empirical studies with theory development, Kolers argued that memory contains procedural, not propositional knowledge: It is the operations themselves, not their products, that constitute the memory record. This perspective, which was rather ahead of its time, has significantly influenced thinking about cognitive processing.

One of the two most loyal contributors to the journal also works in the domain of reading, particularly on the topic of visual word recognition. Over 39 years—from 1982 (Besner & Davelaar, 1982) to 2021 (Besner et al., in press)—Derek Besner has published 27 articles in the journal elucidating the basic mechanisms in the processing of printed words and other symbols. This set of articles has collectively been cited 670 times (as of January 6, 2021).

Over 44 years, Allan Paivio also published 27 articles in the journal, beginning in 1956 (Lambert & Paivio, 1956) and continuing through to 2000 (Paivio et al., 2000). This work also relates to the processing of words and symbols, most notably visual images, in

Table 2
The 25 Most-Cited Articles in the First 70 Years of the Canadian Journal of (Experimental) Psychology (1947–2016)

Rank by total citations	Total citations	Rank by mean citations	Mean citations (per year)	Author(s)	Title	Year	Volume/ issue	Pages
1	1124	5	18.73	Kimura, D.	Cerebral dominance and the perception of verbal stimuli	1961	15/3	166–171
2	856	2	28.53	Paivio, A.	Dual coding theory: Retrospect and current status	1991	45/3	255–287
3	582	1	32.33	Masson, M. E. J., and Loftus, G. R.	Using confidence intervals for graphically based data interpretation	2003	57/3	203–220
4	566	11	9.43	Kimura, D.	Some effects of temporal-lobe damage on auditory perception	1961	15/3	156–165
5	560	4	19.31	O'Regan, J. K.	Solving the "real" mysteries of visual perception: The world as an outside memory	1992	46/3	461–488
6	487	15	7.86	Gardner, R. C., and Lambert, W. E.	Motivational variables in second-language acquisition	1959	13/4	266–272
7	474	3	19.75	Krumhansl, C. L.	An exploratory study of musical emotions and psychophysiology	1997	51/4	336–353
8	452	7	13.29	Marteniuk, R. G., Mackenzie, C. L., Jeannerod, M., Athenes, S., and Dugas, C.	Constraints on human arm movement trajectories	1987	41/3	365–378
9	442	8	11.63	Jacoby, L. L., and Witherspoon, D.	Remembering without awareness	1982	36/2	300–324
10	439	10	9.98	de Wit, H., and Wise, R. A.	Blockade of cocaine reinforcement in rats with the dopamine receptor blocker pimozide, but not with the noradrenergic blockers phentolamine or phenoxybenzamine	1977	31/4	195–203
11	434	13	8.19	Brooks, L. R.	Spatial and verbal components of the act of recall	1968	22/5	349–368
12	380	21	5.67	Bexton, W. H., Heron, W., and Scott, T. H.	Effects of decreased variation in the sensory environment	1954	8/2	70–76
13	315	12	9.00	Cheesman, J., and Merikle, P. M.	Distinguishing conscious from unconscious perceptual processes	1986	40/4	343–367
14	314	16	7.66	Barnes, C. A., Nadel, L., and Honig, W. K.	Spatial memory deficit in senescent rats	1980	34/1	29–39
15	284	22	5.46	Kimura, D.	Spatial localization in left and right visual fields	1969	23/6	445–458
16	280	25	4.00	Rabinovitch, M. S., and Rosvold, H. E.	A closed-field intelligence test for rats	1951	5/3	122–128
17	265	14	7.79	McIntyre, J. S., and Craik, F. I. M.	Age differences in memory for item and source information	1987	41/2	175–192
18	235	24	4.20	Ward, W. C., and Jenkins, H. M.	The display of information and the judgment of contingency	1965	19/3	231–241
19	229	9	10.90	Evans, M. A., Shaw, D., and Bell, M.	Home literacy activities and their influence on early literacy skills	2000	54/2	65–75
20	227	20	5.82	Rabinowitz, J. C., Craik, F. I. M., and Ackerman, B. P.	A processing resource account of age-differences in recall	1982	36/2	325–344
21	224	18	6.22	Campbell, J. I. D., and Graham, D. J.	Mental multiplication skill: Structure, process, and acquisition	1985	39/2	338–366
22	221	17	6.91	Werker, J. F., and McLeod, P. J.	Infant preference for both male and female infant-directed talk: A developmental study of attentional and affective responsiveness	1989	43/2	230–246
23	219	23	5.34	Jonides, J.	Towards a model of the mind's eye's movement	1980	34/2	103–112
24	218	19	6.06	Logan, G. D.	Skill and automaticity: Relations, implications, and future directions	1985	39/2	367–386
25	214	6	14.27	Bialystok, E.	Effect of bilingualism and computer video game experience on the Simon task	2006	60/1	68–79

Note. The citation data were downloaded from *Web of Science* on January 6, 2021.

keeping with Paivio's (1991) #2 entry in the top 25 reviewing his dual coding theory. In addition to the review, the other studies from his research program that have appeared in the journal have been cited 1051 times (as of January 6, 2021).

In recent years, several articles, each either a review or a method paper, seem poised to be "hits." The Mooneyham and Schooler (2013) review of the consequences of mind-wandering, bubbling just under the "top 25," will surely earn its *Web of Science* "highly cited paper" status. Others that will be influential are Bialystok's (2011) article arguing for the benefits of bilingualism, Moscovitch's (2008) article on hippocampal function, and Jarmasz and Hollands' (2009) article on confidence intervals. Continuing to attract such contributions is good for the journal's visibility.

Over the decades, the journal has moved from being a general psychology journal, to being a human experimental psychology journal encompassing a broad swath of the discipline, to currently being largely a cognitive journal. Perhaps insertion of the word "Experimental" into the title of the journal led to potential contributors equating *CJEP* with the *Journal of Experimental Psychology* (*JEP*) series, further fostering this trend; certainly the emergence of many specialty journals over the lifespan of *CJEP* has lured potential contributors away. Yet the journal continues to attract excellent research nationally as well as internationally.

Conclusion

What might we look for from the journal in the years to come? We can certainly foresee that the Editors and members of the editorial board will increasingly represent the diversity inherent in Canadian psychological science at all career stages. It definitely is also time for an Editor to come from the Maritime provinces and from British Columbia. As Editors have repeatedly appealed, we can hope that Canadian researchers will support their journal by at least occasionally sending their best work to *CJEP*: Doing so would boost the journal's IF and, ideally, move it into Q1 in the Scimago rankings. And we can expect the journal to reflect the science of experimental psychology as it changes both nationally and internationally. Pexman initiated an emphasis on the Open Science Framework, and we can expect that to positively influence submissions; relatedly, current Editor Randall Jamieson has initiated a new category of Registered Replications. Some years ago, during the editorship of James Nairne, *Memory & Cognition* introduced the idea of "progress reports," where a lab would describe developments in a program of research; this would be worthwhile considering as an addition, given its alignment with NSERC's mission and the journal's mandate. We can also readily imagine electronic innovations on the horizon, including such possibilities as linked videos by researchers and potentially new ways to think about making content more widely available to the public.

My goal in this article has been to survey the journal as it approaches its 75th year, examining its origin and progress, its Editors and their influence, its most influential articles, and some of its notable content over its first 70 years. With the articles published in the journal representing excellent peer-reviewed psychological science, the *Canadian Journal of Experimental Psychology* provides both *CPA* and *CSBBCS* with worldwide visibility. From its early days as the "house organ" of *CPA*, the journal matured into an important research outlet, one that receives submissions from around the world and is a source of pride for Canadian experimental psychology and for the Canadian psychological community as a whole.

Résumé

Cet article s'intéresse aux 70 premières années de la présente revue. Il couvre (a) l'historique de la revue depuis son origine, (b) le profil des différents rédacteurs, (c) la façon dont rédacteurs ont influé sur la revue, (d) les articles ayant fait l'objet des plus nombreuses mentions, et (e) le contenu de la revue. Durant ses deux premières décennies d'existence, la portée de la revue a changé à quelques reprises. Par la suite, la revue est devenue une source fort respectée à travers le monde dans le domaine de la psychologie expérimentale.

Mots-clés : historique, revue, impact, rédacteurs, citations

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