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Introduction to the 100th Anniversary Issue of the *Psychological Review*

Walter Kintsch and John T. Cacioppo

A 100th birthday is always remarkable. But great age in itself is not an unmixed blessing. There is reason to celebrate, however, when the centenarian is as vigorous and influential as the *Psychological Review.* From its very beginning 100 years ago, the *Psychological Review* was a success. It readily established itself as a major voice within psychology, and it has managed to retain that role since. There have been many challenges, today perhaps more than ever, but the *Psychological Review* has remained the primary outlet for theoretical publications in psychology.

The rather colorful history of the founding of the journal is recounted in the editorial that Herbert S. Langfeld (1943) wrote on the occasion of its 50th anniversary (the reprint is included in this issue). When James McK. Cattell and J. Mark Baldwin were unable to wrest the *American Journal of Psychology* (founded 7 years before) from G. Stanley Hall, who considered it his and Clark University's house organ, they founded the *Psychological Review* together in 1894. Interestingly, the printer they chose in 1895—the New Era Printing House, which is today Lancaster Press, Inc.—still prints the journal. Figure 1 shows a copy of the invoice for the printing of the 500 copies of the January 1896 issue.[1] Unfortunately, Cattell and Baldwin had very different ideas about the *Psychological Review,* Cattell stressing the empirical and quantitative side of psychology and Baldwin being more interested in its theoretical and philosophical aspects. They decided to auction off the journal between them, and Baldwin won.

In those early days, the *Psychological Review* was a general journal with features that today we would expect to find in *The APA Monitor* rather than in a scientific publication. Howard C. Warren soon joined Baldwin and eventually took over the *Psychological Review.* Warren was also involved in the founding of several other journals, such as the *Journal of Experimental Psychology,* which was started in 1916 with John B. Watson as the editor and which allowed the *Psychological Review* to focus on theory by drawing off most of the empirical articles. In 1925, Warren offered the *Psychological Review* to the American Psychological Association (APA) with most generous conditions. He stayed on as editor for several more years until Langfeld took over in 1934. By that time, the *Psychological Review* had acquired essentially its current format. News features were excluded (e.g., as psychologists aged more quickly than their journal, the *Psychological Review* had to carry more and more obituaries, until the practice was stopped altogether), and the journal specialized entirely in theory. To this day, however, theory in the *Psychological Review* has always meant theory with an empirical base, or at least potential linkages to data, rather than the more speculative sort of theory that is also often found in psychology.

Langfeld's (1943) article on the "Jubilee of the *Psychological Review*" is a valuable historical document that provides a good account of the early development of the *Psychological Review.* Table 1 summarizes this history in terms of the editors of the *Psychological Review* and extends it to the present. After Langfeld, the current practice arose of appointing editors to fixed 5- or 6-year terms. Eventually, with the growth of the field and the growth of the journal, associate editors were added to handle an increasing work load.

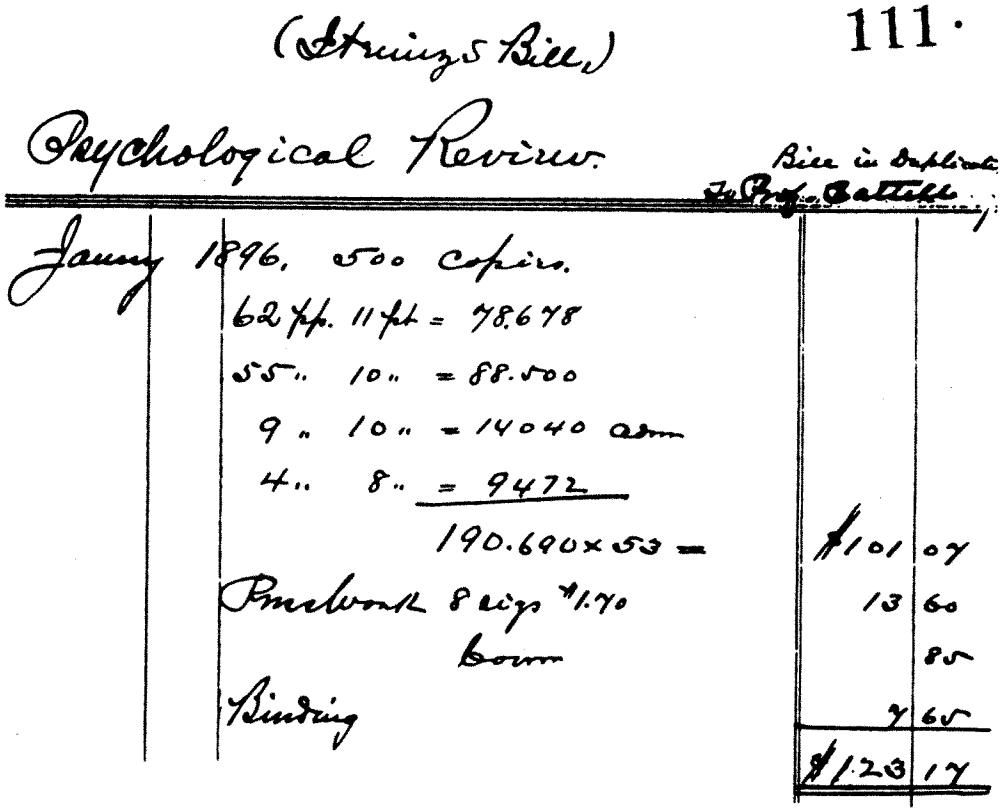
It is, of course, necessary to ask whether a journal whose format had been established well over 50 years ago is fulfilling its functions today in the best possible way. What are the pressures for change that the *Psychological Review* is experiencing today? Surprisingly, in the years we have worked as the editors of the journal, we have not felt strong pressures for change. Times have changed, of course, because of the tremendous growth of psychology and its ensuing fragmentation. Fifty years ago, every well-educated psychologist could and probably did read most of the articles appearing in the *Psychological Review.* This is no longer possible, as many of the current articles are far too specialized to be read by anyone but an expert in the field. This is, however, no different than in other well-developed sciences and does not seem to be a detriment to the popularity of the journal. In the long run, however, this development bears watching, because if the ratio of articles actually read by any individual to the total number of articles published becomes too low, the journal will lose its private subscribers, historically a core section of its audience.

What sort of psychological theory does the *Psychological Review* publish, and how has this changed during its 100-year history? We have classified the articles published in the *Psychological Review* according to the subfields of psychology, but we hesitate to publish these data for fear of misleading the public: A great many articles touch on more than a single subfield, so that any kind of categorization becomes questionable. Nevertheless, although precise percentage values could hardly be defended, certain broad features of these data appear consistent and reliable. The two main subfields in the *Psychological Review* have always been cognition (or what we might call so today) and perception. In the first decade of the *Psychological Review,* almost half of all (scientific) articles published dealt with perception and motor behavior; later this value stabilized at around 20%. Cognitive articles made up about 20% throughout the first half century of the *Psychological Review* and up to 40% during the second half. Articles on animal learning and comparative psychology reflect the rise and fall of behaviorism: Rare in the first

Walter Kintsch, Department of Psychology, University of Colorado; John T. Cacioppo, Department of Psychology, Ohio State University.

Correspondence concerning this article should be addressed to Walter Kintsch, Department of Psychology, University of Colorado, Boulder, Colorado 80309-0345.

[1] This information was made available by Leslie A. Cameron, Director, Journals Program, American Psychological Association.


(Stratton's Bill)

111.

Psychological Review.

Bill in duplicate
To Prof. Cattell

Jany 1896. 500 copies.

62 pp. 11 pt = 78.678

55 " 10 " = 88.500

9 " 10 " = 14040 ads

4 " 8 " = 9472

190.690 × 53 = $101 07

Presswork 8 sigs $1.70 13 60

Boards 85

Binding 7 65

$123 17

Figure 1. The invoice for the printing of the January 1896 issue of the *Psychological Review* from the New Era Printing Company, where the journal has been printed ever since (now called Lancaster Press, Inc.). From "North Queen Street Years (1891–1920)" (p. 18) by D. J. Summar, 1979, in H. B. Morrin & D. R. Sherick (Eds.), *Lancaster Press: The first hundred years—1877–1977.* Lancaster, PA: Lancaster Press. Copyright 1979 by Lancaster Press. Reprinted by permission.

years, they became one of the largest categories in Volumes 30–79, only to decrease to the 5% level thereafter. Social psychology articles increased steadily in frequency throughout the period, from a trickle initially to 10%–15% currently. The opposite trend holds for articles on emotion and motivation, which was a 15% category during Volumes 1–30 but then decreased to less than half of that value. Testing was a fairly strong category in Volumes 30–39, but it has moved to other journals in recent years. Clinical, developmental, personality, and physiological have been quite steady over the decades as 5% categories.

All in all, this picture is one of astonishing stability: Except for a bulge of articles on animal learning during the heydays of behaviorism at the expense of cognitive and perceptual articles, the overall distribution of articles in the *Psychological Review* has been remarkably constant for 100 years. However, although the overall categories have remained stable, enormous changes have occurred within categories.

In every subfield of psychology, the level of discussion and the nature of theorizing has changed almost beyond recognition during the century the *Psychological Review* has been published. Theories that count as cognitive, perceptual, social, physiological, and so forth today bear little resemblance to the style of theorizing 100 or even 50 years ago. In the 1890s, a cognitive article might have dealt with apperception as a conscious phenomenon; in the 1950s, it might have been a theory of proactive inhibition in paired-associate learning; and in the 1990s, it is a connectionist model of word recognition. What we characterized as a physiological article might have been a descriptive study of the galvanic skin response in the early part of the century, whereas today it might be a model of the role of the hyppocampus in memory, addressed to data that range from behavioral to anatomical. Almost every field of psychology has seen comparably pronounced changes. The problems have remained the same, but the questions that are being asked about them have changed a great deal.

What are the most important articles that the *Psychological Review* has published in its first 100 years? We do not know how to answer such a question. Langfeld (1943) has tried to do so for the first 50 years, and the reader may study his conclusions in the following article. We can say, however, which articles were the most cited from the *Psychological Review* in the past 40 years or more.[2] Table 2 shows, in rank order, the 20 most widely cited articles in the Science Citation Index (SCI) for the period of 1945–1992 and in the Social Science Citation Index (SSCI) for the period of 1956–1992. Separate listings are necessary because of the unknown overlap between the two indexes. The

[2] We gratefully acknowledge the help of Eric Thurschwell and Deanna Laing from the Institute for Scientific Information, publishers of "Current Contents," who made these data available to us.

Table 1
Editors of the Psychological Review, 1894–1994

Years	Editors	Notes
1894–1903	James McK. Cattell (Columbia College) & J. Mark Baldwin (Princeton University)	Cattell and Baldwin were coowners of the *Psychological Review* 1895 New Era (Lancaster Press) began printing *Psychological Review* 1903 Baldwin bought *Psychological Review* for $3,505.
1904–1908	J. Mark Baldwin (Johns Hopkins University) & Howard C. Warren (Princeton University)	
1909	J. Mark Baldwin, Howard C. Warren, & John B. Watson (Johns Hopkins University)	
1910–1915	John B. Watson	1910 Warren bought *Psychological Review*
1916–1933	Howard C. Warren	1925 APA bought *Psychological Review*
1934–1948	Herbert S. Langfield (Princeton University)	
1949–1953	Caroll C. Pratt (Princeton University)	
1954–1958	Theodore M. Newcomb (University of Michigan)	
1959–1964	Richard L. Solomon (Harvard University)	
1965–1970	Charles N. Cofer (Pennsylvania State University)	
1971–1976	George Mandler *Associate Editor:* Jean Mandler (University of California, San Diego)	
1977–1982	William K. Estes (Rockefeller University)	
1983–1988	Martin L. Hoffman (Michigan University) *Associate Editor:* Murray Glanzer (New York University)	
1989–1994	Walter Kintsch (University of Colorado) *Associate Editors:* Charles M. Judd (University of Colorado) and John T. Cacioppo (Ohio State University)	

Note. APA = American Psychological Association.

actual citation frequencies range from 1,165 to 380 on the SCI and from 2,203 to 584 on the SSCI. As one might expect, the two rankings are quite different; only five articles appear on both lists. The oldest article to make the list is from 1949, the youngest from 1980, reflecting, on the one hand, psychologists' preference for citing the most recent work, and, on the other hand, the rather long time before a publication begins to amass a large number of citations. Citation frequency, however, is a biased measure of importance in that it favors articles in popular areas and neglects important contributions in more specialized fields. Indeed, only one of the nine *Psychological Review* classics reprinted in this special issue is listed in Table 2—Miller's (1956) "The Magical Number Seven, Plus or Minus Two," which is clearly the most widely cited article in the history of the *Psychological Review.*

Thus, neither importance nor citation frequency were used as the criterion for selecting articles for this special issue. Instead, we decided to pick interesting articles, that is, articles that are fun to read today and about which something interesting can be said from today's vantage point. In addition, we imposed two constraints on our selection: We did not select articles published later than the 1950s, and we wanted a fair coverage of the main areas of psychology, at least in so far as they have been represented in the *Psychological Review.* These principles yielded articles that tended to be well-known and important. The little-known article by Münsterberg (1899) is an exception, but it is a reminder of the historical and philosophical roots of psychology and how far psychology as a theoretical science has come in the past century. Obviously, many other sets of articles could have been selected in this way, and each reader might have made some different choices. This is our selection, and we hope readers will enjoy it!

Most of our readers will not have read any of the eight articles reprinted here, and if they have, it will have been a long time ago, and the details will have been quite forgotten. It is a stimulating experience to read or reread these old articles today. As working scientists, we rarely look very deeply into our history, but those who decide to do so for this birthday celebration are promised some pleasant hours. So much has changed, and yet so much has remained the same! Unfortunately, none of us is knowledgeable enough to be able to put each one of these articles into its contemporary context. Even though we have all

Table 2
The 20 Most Frequently Cited Articles From the Psychological Review in the Social Science Citation Index (1956–1992) and the Science Citation Index (1945–1992), Listed in Order of Frequency

SSCI	SCI
Bandura (1977)	Miller (1956)[a]
Miller (1956)[a]	Stevens (1957)[a]
Nisbett & Wilson (1977)	Teitelbaum & Epstein (1962)
White (1959)	Thompson & Spencer (1966)
Schachter & Singer (1962)[a]	Liberman, Cooper, Shankweiler, & Studdert-Kennedy (1967)[a]
Shiffrin & Schneider (1977)	Schachter & Singer (1962)[a]
Mischel (1973)	Hebb (1955)[a]
Collins & Loftus (1975)	Groves & Thompson (1970)
Schneider & Shiffrin (1977)	Bolles (1970)
Tulving & Thomson (1973)	Harlow (1949)
Liberman, Cooper, Shankweiler, & Studdert-Kennedy (1967)[a]	Rozin & Kalat (1971)
Kintsch & Van-Dijk (1978)	Waugh & Norman (1965)
Hebb (1955)[a]	Amsel (1962)
Kahneman & Tversky (1973)	Rescorla (1967)
Tversky (1977)	Seligman (1970)
Morton (1969)	Carlton (1963)
Stevens (1957)[a]	Rescorla & Solomon (1967)
Easterbook (1959)	Malmo (1959)
Bem (1967)	NA
Ericsson & Simon (1980)	NA

Note. SSCI = Social Science Citation Index; SCI = Science Citation Index; NA = not available.
[a] Appears in both lists.

heard about the James–Lange theory of emotion, few of us are aware of what is going on in that field today. To make these articles more accessible to every reader, we have asked experts to write brief commentaries on each article, placing it into the context of contemporary research in their area. We have asked not only people who are experts in the area of the article narrowly defined, but in several cases we have found commentators who could discuss an article from a broader perspective, perhaps even one that would have astonished the article's author. Thus, the reader is invited to look at Watson from the viewpoint of neuroscience, at Thurstone through the eyes of a social psychologist, and at Gibson through a cognitive lens.

We are indebted to many people who made this special issue possible. First of all, we thank the commentators. The enthusiasm with which they took up their task bodes well for the readers' enjoyment of this special issue! We also gratefully acknowledge the support of the Publications and Communications Board of APA, who gave us the extra pages necessary to publish this special issue without interfering with the regular flow of articles in the journal. We hope that our readers will find the product of these labors informative and fun to read, and that this special issue will do its part to raise interest among psychologists in their historical roots and the appreciation of researchers for the complexity and richness of the tradition of which they are a fugitive part themselves.

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