JOURNAL OF APPLIED BEHAVIOR ANALYSIS 1977, 10, 515-525 NUMBER 3 (FALL) 1977

SELF-CONTROL TECHNIQUES OF FAMOUS NOVELISTS[1]

IRVING WALLACE

AUTHORS GUILD AND AUTHORS LEAGUE OF AMERICA
(WITH INTRODUCTION AND DISCUSSION BY J. J. PEAR)
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A statement by a famous contemporary novelist is presented that indicates how he and others, independently of formal behaviorism, used behavioristic methods—specifically, self-recording charts and regularly scheduled daily work hours—to accelerate and maintain their writing outputs. On the basis of his statement and an analysis of his self-recorded data, it is argued that a meaningful and useful analogy can be drawn between writing a novel and emitting a simple operant response on a fixed-ratio schedule.

DESCRIPTORS: self-control, self-recording, self-reinforcement, fixed-ratio schedules, novel writing, famous novelists

INTRODUCTION—by J.J.P.

The persistence of the successful novelist seems, superficially at least, to defy prevalent notions of reinforcement. Novel writing involves a supreme effort whose ultimate primary reinforcement, by any conventional standard, must be described as very long deferred. What reinforces the behavior before the completion of the manuscript, its publication, and its public acclaim? And if the manuscript is rejected by all potential publishers, what reinforces the behavior that produces subsequent manuscripts until finally one is published? The behaviorist can, of course, point to a number of possible intermediate sources of reinforcement, perhaps eventually to be subjected to an experimental analysis (Skinner, 1957, pp. 396-402). Nevertheless, it is clear that these sources are often insufficient. Novel writing is a rather uncommon endeavor and, when it is undertaken, appears quite susceptible to extinction (Skinner, 1953, pp. 71-72).

If consulted by a client who wished to write a novel, who appeared to have an adequate behavioral repertoire for completing such a task, but who nevertheless seemed unable to carry it out, an informed behaviorist would initiate treatment with techniques that are based on current laboratory findings and that have proven successful in presumably similar cases. A suitable locale for performing the writing task would be specified with the objective of obtaining stimulus control over the desired behavior, regular and frequent (*e.g.*, daily) periods for engaging in the behavior would be scheduled, measurable units of the behavior would be defined, and supplementary reinforcement would be made contingent on completion of an appropriate number of units within a given time period (Goldiamond, 1965). As to locale, the behaviorist would naturally suggest a well-lighted private work area equipped with desk and necessary writing materials. For units, either words or pages written might prove to be both adequate and convenient. Concerning reinforcers, there are many possibilities. But, from a practical point of view, a simple chart showing the number of words or pages written each day might provide sufficient supplementary reinforcement as well as data for monitoring the desired behavior (Kazdin, 1974).

Thus, in some such manner, the behaviorist would probably treat the problem as one of efficiently maintaining ratio-schedule performance

[1]Prepration of this article was supported by Grant No. MA-5647 from the Medical Research Council of Canada. Reprints may be obtained from J. J. Pear, Department of Psychology, University of Manitoba, Winnipeg, Manitoba, Canada R3T 2N2.

—*i.e.*, behavior whose reinforcement depends directly on the quantity of behavior emitted (Ferster and Skinner, 1957). An analogy can be drawn from Findley and Brady's (1965) study, in which a chimpanzee's button-pushing performance was maintained more efficiently on a highly demanding fixed-ratio schedule when conditioned reinforcement (a light flash) was presented on a less demanding fixed-ratio schedule, than it was with primary reinforcement (food) alone. Moreover, a study by Zeiler (1970) indicated that efficiency might have been increased further by imposing a time limit on the availability of conditioned reinforcement. Similarly, writing output might be enhanced by assigning conditioned reinforcement value to the completion of a certain number of words or pages if and only if it is achieved within a given time period.

Is this a gross oversimplification of the problem? Obviously there is more to producing a novel than merely putting words on paper. As mentioned, however, we are assuming (for our present purpose) that the necessary precurrent behaviors are already in the prospective writer's repertoire. Given this assumption, it still remains to be shown that the approach is valid. One might easily be tempted to predict that such a blatantly mechanical treatment, with its emphasis on regular periods for writing and reinforcement of a steady output, would stifle important processes suggested by terms such as "creativity" and "inspiration". Perhaps study behavior (Broden, Hall, and Mitts, 1971; Fox, 1962), grade-school composition (Ballard and Glynn, 1975; Brigham, Graubard, and Stans, 1972; Maloney and Hopkins, 1973), and even doctoral dissertation writing (Harris, 1974; Nurnberger and Zimmerman, 1970) can flourish under behavioristic regimens—but creating a successful novel would be thought by many to belong to an entirely different category.

Since applied behavioral analysis is a very new technology, still focusing mainly on relatively simple behavior problems and those found within institutional settings, it might seem that as yet there could be no data on the use of artificially constructed ratio schedules to accelerate and maintain the writing of successful novels. But such data do exist. At least several well-known novelists have kept detailed records of their writing behavior precisely in the manner and, apparently, precisely for the reason that a modern behaviorist—had it been possible or necessary to consult one—could have suggested to them. One of these novelists of contemporary fame is Irving Wallace. In the next section, he sets forth ways in which he and others, independently of formal behaviorism, have controlled their own literary output through the use of behavior-modification techniques. In the final section, samples of the data he has taken on his own behavior are presented in the form of cumulative records illustrating similarities with data generated by fixed-ratio schedules.

SELF-CONTROL TECHNIQUES OF FAMOUS NOVELISTS[2]

by Irving Wallace

I kept a work chart when I wrote my first book—which remains unpublished—at the age of nineteen. I maintained work charts while writing my first four published books. These charts showed the date I started each chapter, the date I finished it, and the number of pages written in that period. With my fifth book, I started keeping a more detailed chart, which also showed how many pages I had written by the end of every working day [e.g., Figure 1]. I am not sure why I started keeping such records. I suspect that it was because, as a free-lance writer, entirely on my own, without employer or deadline, I wanted to create disciplines for myself, ones that were guilt-making when ignored. A chart on the wall served as such a discipline, its figures scolding me or encouraging me.

I had never told anyone about these charts, because I always feared that their existence

[2]From Wallace (1971, pp. 65-69) and reprinted with the author's permission.

would be considered eccentric or unliterary. But through the years, I have learned that their usage has not been uncommon among well-known novelists of the past. Anthony Trollope, author of more than fifty popular novels including *Barchester Towers,* was perhaps the greater record-keeper known to literature. In his *Autobiography,* published in 1883, Trollope wrote:

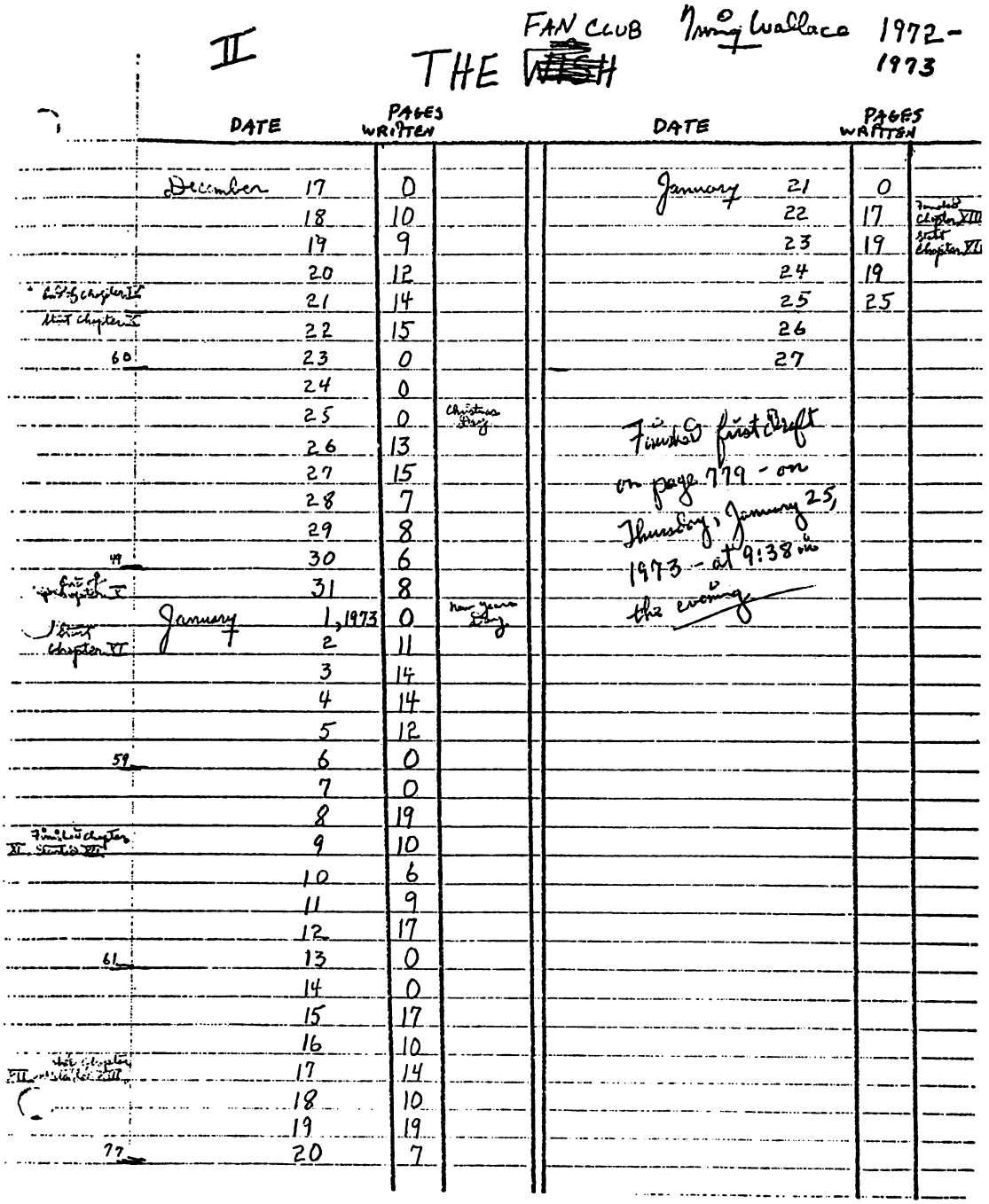

Fig. 1. A sheet from one of Irving Wallace's work charts. The sheet, which is Page II of the chart, shows the daily number of pages written for the first draft of *The Fan Club* from December 17, 1972, until the completion of that draft on January 25, 1973.

"When I have commenced a new book, I have always prepared a diary, divided into weeks, and carried on for the period which I have allowed myself for the completion of the work. In this I have entered, day by day, the number of pages I have written, so that if at any time I have slipped into idleness for a day or two, the record of that idleness has been there, staring me in the face, and demanding of me increased labour, so that the deficiency might be supplied. According to the circumstances of the time,—whether my other business might then be heavy or light, or whether the book I was writing was or was not wanted with speed,—I have allotted myself so many pages a week. The average number has been about 40. It has been placed as low as 20, and has risen to 112. And as a page is an ambiguous term, my page has been made to contain 250 words; and as words, if not watched, will have a tendency to straggle, I have had every word counted as I went. . . . There has ever been the record before me, and a week passed with an insufficient number of pages has been a blister to my eye and a month so disgraced would have been a sorrow to my heart.

"I have been told that such appliances are beneath the notice of a man of genius. I have never fancied myself to be a man of genius, but had I been so I think I might well have subjected myself to these trammels. Nothing surely is so potent as a law that may not be disobeyed. It has the force of the water-drop that hollows the stone. A small daily task, if it be really daily, will beat the labours of a spasmodic Hercules [Trollope, 1946, pp. 116-117]."

This revelation, as well as other confessions made by Trollope, indicated that "he treated literature as a trade and wrote by the clock," and this offended literary assessors and damaged his reputation for years after. Yet numerous authors have been just as meticulous about their writing output and about recording it, and they have fared better in the eyes of the literati. Arnold Bennett, for one, devoutedly charted in his *Journal* his daily progress, by word count, for each new novel [Bennett, 1971].

. . . . .

Ernest Hemingway is an example of a word or page counter in recent times. According to the *Paris Review:*

"He keeps track of his daily progress—'so as not to kid myself'—on a large chart made out of the side of a cardboard packing case and set up against the wall under the nose of a mounted gazelle head. The numbers on the chart showing the daily output of words differ from 450, 575, 462, 1250, back to 512, the higher figures on days Hemingway puts in extra work so he won't feel guilty spending the following day fishing on the gulf stream [Plimpton, 1965, p. 219]."

. . . . .

Once, long ago, deceived by the instructors, professors, by an old romantic tradition, I had believed that a writer writes only when he feels like it, only when he is touched by mystic inspiration. But then, after studying the work habits of novelists of the past, I realized that most successful writers invest their work with professionalism. From Balzac, who worked six to twelve hours a day, and Flaubert, seven hours a day, and Conrad, eight hours a day, to Maugham, who worked four hours a day, and Aldous Huxley, five hours a day, and Hemingway, six hours a day, these authors were uniformly industrious, and when they were once launched upon a book they wrote regularly, day in and day out. While the story may be apocryphal—I should like to believe it is not—it is said that Victor Hugo sometimes forced himself to work regularly by confining himself to his study. To do this, he had his valet take away every stitch of his clothing, and ordered this servant not to return his attire until the hour when he expected to be through with his day's writing.

In short, no matter how they effected their routines, the vast majority of published authors have kept, and do keep, some semblance of regular daily hours. . . . Occasionally the hourkeepers were inspired when they went to their desks, but if they were not, they simply wrote as well

as they could, as craftsmen, and hoped for the best.

A FURTHER DISCUSSION ON NOVEL WRITING AS FIXED-RATIO BEHAVIOR[3]

by J.J.P.

It was argued in the Introduction that a meaningful and useful analogy can be drawn between writing a novel and emitting a simple operant response on a fixed-ratio schedule. There are, of course, important differences between the two types of behavior. One obvious difference is that writing a novel necessarily follows a certain sequential progression, so that the form of the behavior changes continuously, whereas the operants typically studied in behavioral laboratories are repetitive (for a notable exception, however, see Pryor, Haag, and O'Reilly, 1969). No doubt this is an important consideration in establishing the complex behavioral repertoire prerequisite to novel writing; however, it may be less important insofar as accelerating and maintaining the product of that repertoire is concerned. Another obvious difference is that novels vary in length, whereas the amount of responding required to produce reinforcement on a fixed-ratio schedule does not, of course, vary from one reinforcement to the next. An experienced novelist, however, is probably continually exposed to numerous stimuli indicating the approximate amount of writing required to complete his or her current manuscript.

One plausible empirical test of the analogy would be to compare the temporal pattern of novel writing with that of simple fixed-ratio behavior. The latter is characterized by a pause immediately after reinforcement, followed by a rapid transition to a high rate of responding that persists until the next reinforcement (Ferster and Skinner, 1957). One might therefore expect to find a relatively low rate of writing near the start of a manuscript and a higher rate toward its completion. Moreover, fixed-ratio schedules whose units consist of smaller fixed-ratio schedules have been studied, and it has been found that shorter pauses tend to occur after completion of each of these smaller units than after completion of the larger unit that they constitute (Kelleher, 1958; Lee and Gollub, 1971). Since each chapter of a novel might be considered to be a small fixed-ratio unit within the larger fixed-ratio unit consisting of the entire manuscript, one might further expect relatively short pauses to occur after completion of each chapter and longer pauses to occur between successive drafts of the novel.

The detailed self-recording charts (*e.g.,* Figure 1) that Irving Wallace kept on his daily novel-writing behavior permit a test of the above predictions. It should first be pointed out, however, that the data in these charts appear to represent more the reworking and elaboration of previously generated verbal behavior (a process Skinner, 1957, pp. 344 ff., has used the term *composition* to describe) than the generation of completely new verbal behavior. Before beginning each novel, Wallace prepared extensive notes and outlines, as indicated in the following quote: "On each new novel, I have always written many outlines for myself, developing scenes and characters, underlining story problems that need further thought. I work a novel out, in chronological sequence, over many weeks, in my head and then roughly on paper before beginning it. . . . But at the same time I try to leave a broad area for spontaneity in my outlines [Wallace, 1971, pp. 51-52]." Although Wallace generally made many revisions in his outlines after beginning to write each novel, most of this revising was done outside of the daily hours that he scheduled for his writing. Referring specifically to the writing of *The Prize* and *The Man,* Wallace (personal communication) stated: "On both books I usually

[3]Based on a paper presented at the Thirty-Seventh Annual Meeting of the Canadian Psychological Association, Toronto, Ontario, June 9 to 11, 1976. The author expresses his gratitude to Irving Wallace for his helpful comments and for generously making his private records available to be used in preparing this section of the article.

woke up at ten o'clock in the morning, went to work at noon, and wrote until five-thirty—with perhaps two half hour breaks for light lunch and opening mail. Often I worked two hours before midnight, planning or roughing out scenes I intended to tackle in the next day or week."

Samples of Wallace's daily self-recording charts have been reproduced in Wallace (1971) and Leverence (1974). Additional data for the purpose of this paper were supplied by Wallace from his personal records. Due to space limitations, only the data for *The Prize, The Man,* and *The Plot* will be presented here. These data, however, are generally representative of all the available data.

Figure 2 shows the cumulative record of the first-draft pages written for *The Prize.* Note that the overall rate of writing tended to conform to the expected fixed-ratio pattern in that it was relatively low near the beginning of the manuscript and accelerated to a high level toward the end. Describing the daily work chart on which Figure 2 is based, Wallace (1971, p. 87) appears also to have been impressed with this pattern when he wrote: "Reviewing this work chart now, I see that in November of 1960, there were five out of twenty-six working days when I produced nothing, nary a page, whereas in the last five days of that month I wrote fifty-four first-draft pages. . . . As I came nearer and nearer to the climax and to the end, I wrote more and more steadily, entirely absorbed, totally pulled, and I started passing up meals, limiting my time with my family, canceling social

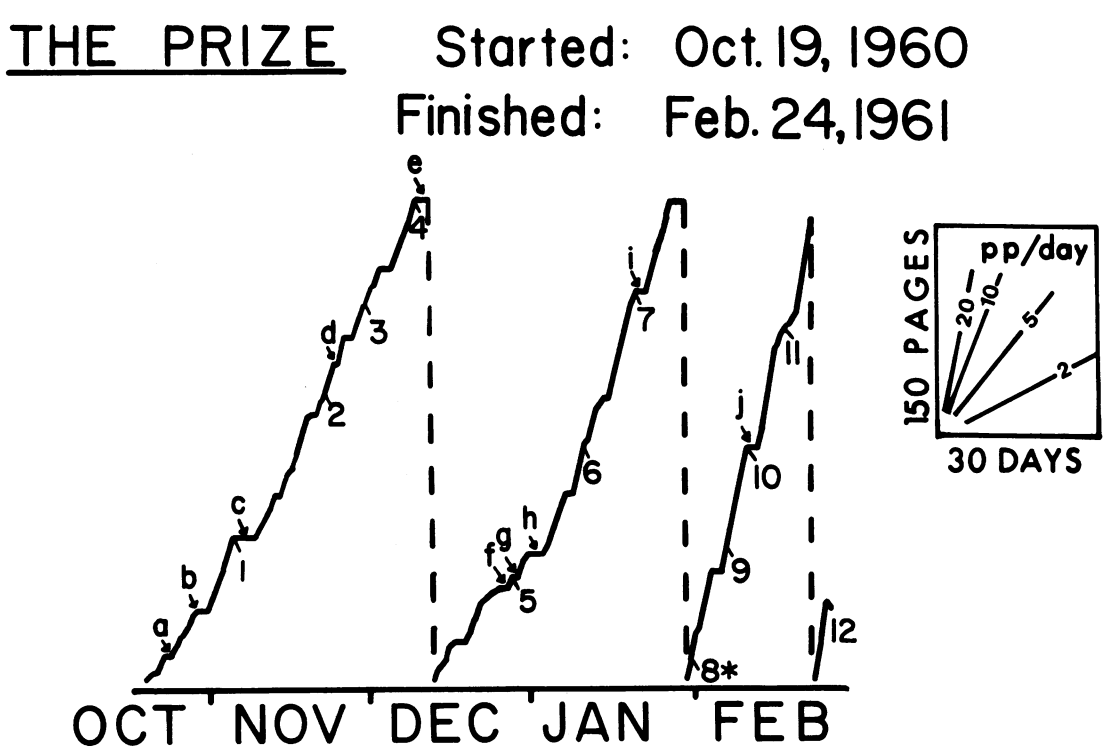

Fig. 2. Cumulative record of the daily number of pages written by Irving Wallace for the first draft of *The Prize.* The oblique lines denote completion of the indicated chapters. The starred chapter number indicates a "run-through"—*i.e.,* that the next chapter was started on the same day that the indicated chapter was completed. The letters correspond to the following comments: (d) "Sunday, day of rest [this comment is from Wallace, 1971, p. 87; the others are from the work chart]" (except toward the completion of the manuscript, Wallace did not work on Sundays); (b) "[made research] notes"; (c) "research"; (d) "holiday"; (e) "research"; (f) "holiday"; (g) "research"; (h) "holiday"; (i) "research"; (j) "research". (Data from Wallace, 1971, pp. 88-91.)

engagements. On February 18, 1961, I started Chapter XII, the last chapter of *The Prize,* and I wrote with such intensity that I completed 127 pages in six days."

The cumulative record in Figure 2 also provides some evidence that rate of writing tended to decrease immediately following chapter completions (indicated by the oblique lines). This evidence supports the view that chapters functioned as small fixed-ratio units for the novelist. Stronger evidence on this point is seen in the fact that the completion of a chapter almost always coincided with the termination of writing for the day on which the chapter was completed. There was only one instance, out of 11 possible instances, in which a new chapter was started on the same day that the previous chapter was completed. As can be seen in Figure 2, this "run-through" (indicated by an asterisk) occurred at the end of Chapter VIII. It is interesting that the sole "run-through" occurred toward the end of the manuscript, when the rate of writing had accelerated to a high level.

The comments (indicated by the letters in the figure) Wallace entered in his daily work chart for *The Prize* provide a flavor of the events and circumstances surrounding the writing of the novel. As subsequent data are presented, it is interesting to note the consistencies in the writing pattern that were maintained despite wide variations in many of the situational factors relating to the behavior. Concerning *The Prize,* note that most of the comments refer to research. This reflects the fact that *The Prize* was the most heavily researched of Wallace's novels (Leverence, 1974, p. 187).

Figure 3 shows the cumulative record of the first-draft pages written for *The Man.* Again, note that the overall rate of responding tended to conform to the expected fixed-ratio pattern, in that it was relatively low near the beginning of the novel and accelerated to a high level toward the end. The similarity between the overall response pattern shown in Figure 3 and that shown in Figure 2 is striking, especially considering the different background circumstances for the writing of the two novels. The different amounts of research required for these books is reflected in the comments Wallace recorded in his daily work charts for the two novels (see the figure captions). Another difference can be seen from the following statement by Wallace (quoted in Leverence, 1974, p. 410): "Normally, a book gestates inside me for some time. . . . But *The Man* just came to me, and when it came I knew it was right. The characters were there. Every major ingredient of the book came early." The continuation of the quote is also interesting: "This was important, for when you have a strikingly unusual idea to superimpose upon your characters, there's always a danger that you'll get into trouble in the last part of the book, because the idea begins to dominate the characters, suffocate them, so that the characters can't evolve through the novel naturally, and you are left with an overwhelming idea that can't be resolved in the end." This suggests that the last part of a novel is not necessarily the "easiest" to write.

In addition to the overall fixed-ratio pattern in the writing of *The Man,* there were also smaller fixed-ratio patterns at the chapter level. As with *The Prize,* some of these can be seen in the cumulative record. Stronger evidence for the existence of these smaller fixed-ratio units, however, is the fact that there were only two "run-throughs" (occurring after Chapters II and VII, as indicated by the asterisks in the figure) out of eight opportunities for "run-throughs" to occur.

Figure 4 shows the cumulative record of the first-draft pages written for *The Plot.* This is the largest of Wallace's novels. Nevertheless, the overall rate is remarkably high and steady, although somewhat lower than the overall rates for the previous two manuscripts. However, the characteristic pattern of a relatively low rate early in the writing of the manuscript and a high terminal rate, is clearly present. Note, also, the large number of pages rewritten during the early part of the manuscript (see the points at *a, b, f, i,* and *o*).

As indicated by the Arabic and Roman numerals (and as explained in the figure caption),

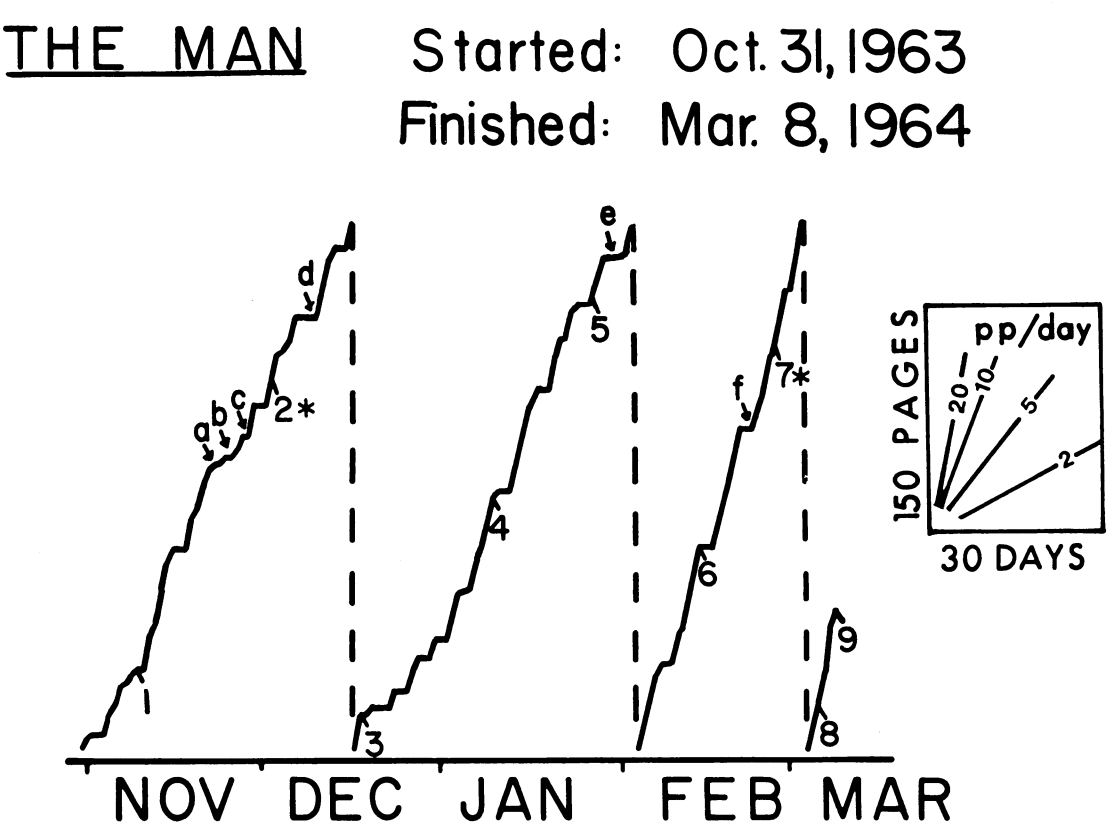

Fig. 3. Cumulative record of the daily number of pages written by Irving Wallace for the first draft of *The Man*. The oblique lines denote completion of the indicated chapters. The starred chapter numbers indicate "run-throughs"—*i.e.*, that the next chapter was started on the same day that each of the indicated chapters was completed. The letters correspond to the following comments: (a) "President Kennedy assassinated"; (b) "JFK's funeral"; (c) "Thanksgiving"; (d) "Life mag[azine] interview" (2 days); (e) "ill" (2 days); (f) "rewriting" (2 days). (Data from Leverence, 1974, pp. 408-409.)

two possible chapter breakdowns—one consisting of nine and one consisting of 12 chapters—were considered for this novel. No "run-through" occurred after completion of any of the proposed chapters. The absence of "run-throughs" may have been related to the fact that the chapters averaged somewhat longer for this novel than for the previous novels. It is known that large fixed-ratio schedules tend to produce longer pauses than do small ones (Ferster and Skinner, 1957).

Wallace typed each first draft straight through, occasionally rewriting pages he considered "poorly done" or "false starts". Then, he carefully reread the entire manuscript, revising it as he went along. Five or six such revisions were usually done for each novel. Sometimes Wallace recorded the daily number of first-draft pages he covered when rereading and revising a manuscript. Figure 5 shows the cumulative record of the daily number of pages covered for the first revision of *The Plot*. Note the long pause of 40 days that occurred between completion of the first draft and the start of the second draft. Concerning this, Wallace (quoted in Leverence, 1974, p. 417) stated: "And when the first draft was finally finished, I took a brief rest and then began to rewrite." Wallace began gradually, however, for he did not start working full-time until the point indicated at *a*. Responding then increased over days to a high terminal rate, thus replicating the overall response pattern seen for the other first drafts in the previous figures.

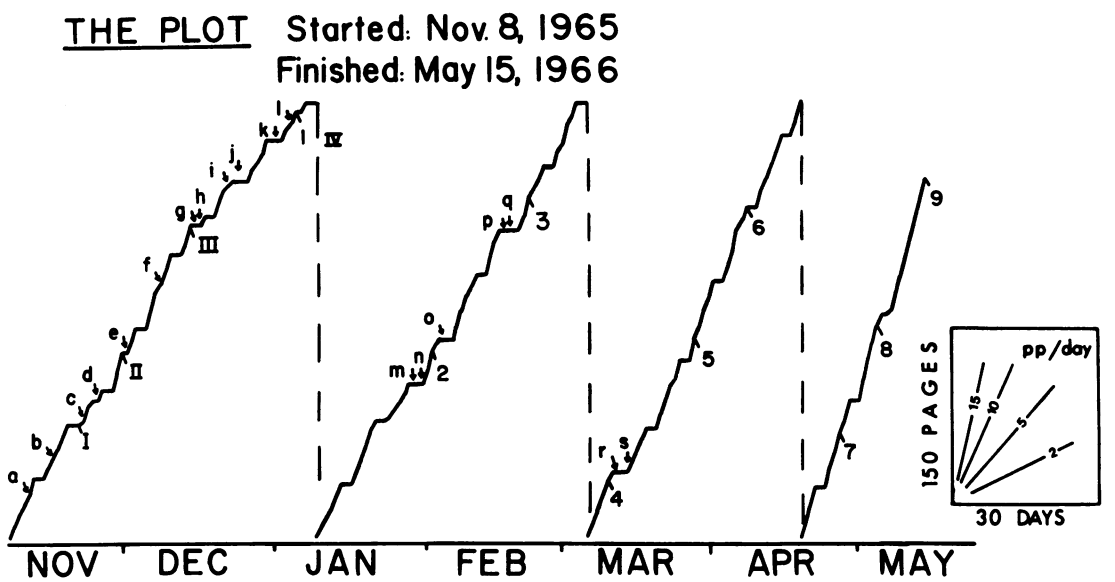

Fig. 4. Cumulative record of the daily number of pages written by Irving Wallace on the first draft of *The Plot*. The oblique lines denote completion of the indicated chapters. The Arabic numerals represent one chapter breakdown that was considered, and the Roman numerals represent an alternative whereby the original Chapter One became Book One consisting of the four chapters indicated. The letters correspond to the following comments: (a) "rewrote 5 pages into 12"; (b) "plus rewriting 4 of yesterday's pages"; (c) "5 pages of research notes"; (d) "Thanksgiving holiday"; (e) "5 pages of research notes"; (f) "4 of yesterday's pages rewritten"; (g) "research"; (h) "mother to hospital; research"; (i) "1 of yesterday's rewritten, also"; (j) "Xmas holiday" (3 days); (k) "New Years day"; (l) "mother to sanatorium"; (m) "Sonny [Wallace's cousin] died"; (n) "Sonny's funeral"; (o) "plus rewriting yesterday's 8 pages completely"; (p) "ill"; (q) "wrote N[ew] Y[ork] Times review"; (r) "Abe Wallace [Wallace's uncle] died"; (s) "Uncle Abe's funeral".

As mentioned, the above data are typical of all of the data available on Irving Wallace's novel-writing behavior. The rate of responding tended to be relatively low near the beginning of each first draft or revision, and then accelerated to a high, steady level that was maintained until the end of the manuscript. (Of 11 cumulative records that were examined, there was only one exception to this generalization; *viz.*, the data for the first revision of *The Fan Club*.) Moreover, relatively short pauses tended to occur immediately following first-draft chapter completions, and considerably longer pauses occurred between successive drafts of the novels. It can therefore be concluded that Irving Wallace's novel-writing behavior closely resembles behavior generated by fixed-ratio schedules.

It can, of course, be argued that these findings were due, entirely or in part, to processes that only superficially resemble the processes operating in simple operants that are reinforced on fixed-ratio schedules. While alternative explanations are possible, extreme care must be taken in their formulation. For example, it might be suggested that writing tends to accelerate toward the latter part of a novel because the novelist becomes more "familiar" with the characters and situations he has invented, or more "engrossed" by them, and that writing about them therefore becomes "easier". The words in quotes, and similar terms that come to mind, seem to denote processes that are quite different from those seen in simple fixed-ratio behavior. However, such terms must be precisely defined before they can be useful in furthering a scientific analysis of behavior. In their present context, they might mean essentially that as the moment of reinforcement on a fixed-ratio schedule approaches, certain variables exert increasingly stronger control over behavior. Exactly what these variables

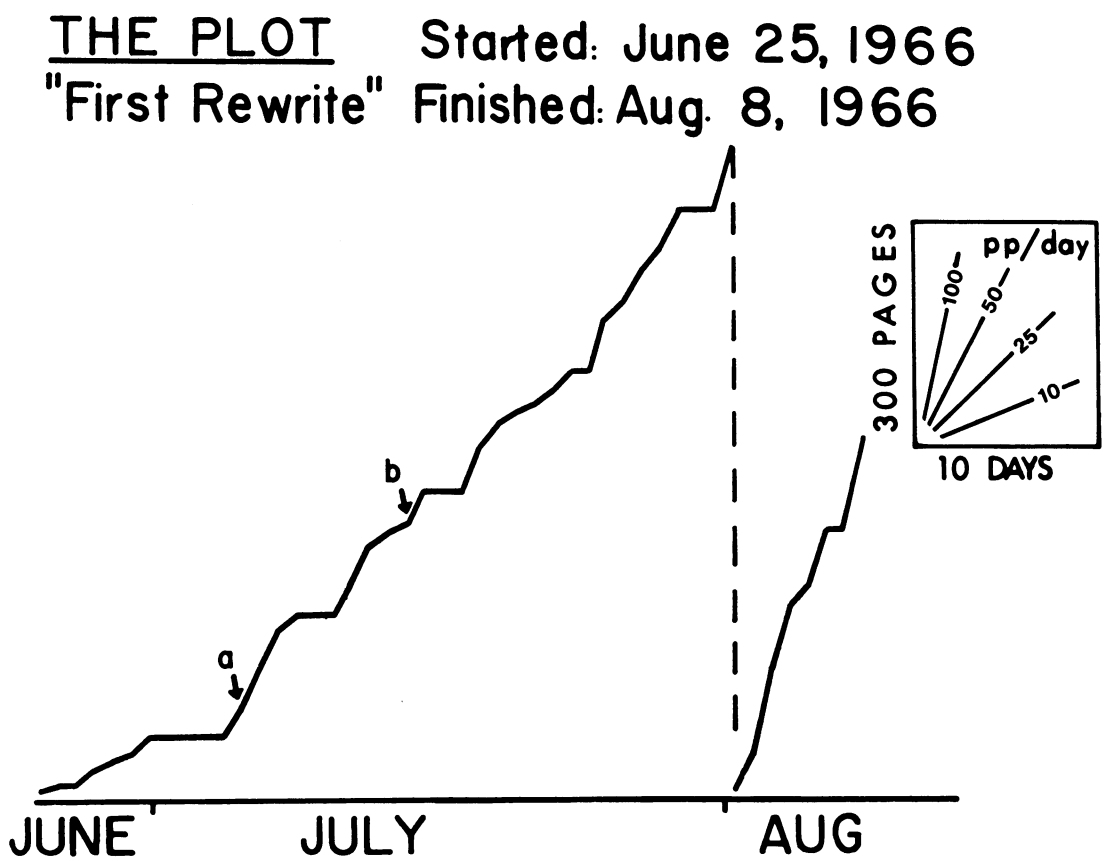

Fig. 5. Cumulative record of the daily number of pages covered by Irving Wallace on the second draft of *The Plot.* The letters correspond to the following comments: (a) "started full-time"; (b) "rewrote full pages, or wrote new ones".

are and exactly how they exert their control are questions that still require extensive study—even for the simple operant.

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Received 12 February 1976.
(Final acceptance 12 October 1976.)