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The Decline of Behavioral Research? Examining Language and Communication Journals

Miles L. Patterson[1], Howard Giles[2], and Margaret Teske[3]

Abstract

In recent years, the decline of behavioral research in personality and social psychology has attracted renewed attention. The decreased incidence of behavioral research over the past few decades has been documented in the *Journal of Personality and Social Psychology* and in *Personality and Social Psychology Bulletin*. This article examined whether this trend was also characteristic of two interdisciplinary language and communication journals (*Human Communication Research* and the *Journal of Language and Social Psychology*) that publish experimental research on interpersonal processes. In contrast to the two personality–social psychology journals, the language and communication journals showed no decrease in behavioral studies over the past two decades. Possible reasons for the contrasting trends in the two types of journals are discussed, including the pattern of increasing numbers of studies per article over time in the personality–social psychology journals, but not in the language and communication journals. Finally, the implications of these differences for research strategies are considered.

Keywords

research methodology, behavioral studies, self-reports

The study of cognitive processes in psychology and communication has become increasingly important over the past several decades (see Holtgraves & Kashima, 2008; Roloff & Berger, 1982). The cognitive perspective is particularly characteristic

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of the extensive research in social psychology (Patterson, 2008). Much of this work examines the cognitive processes involved in social judgments; self-reports of attitudes, thoughts, and feelings; and evaluations of hypothetical scenarios. The situation is similar in personality psychology, with relatively little research examining how personality characteristics affect actual social behavior (Furr & Funder, 2007). Although the study of cognitive processes in isolation is important, one might argue that the ultimate utility of such efforts is the understanding of *social behavior*. Over a century ago, William James emphasized this point in his comment that "thinking is for doing" (James, 1983/1890, pp. 959-960). In spite of the occasional reminders of the pragmatic nature of social judgments (e.g., Bargh, 1997; Fiske, 1992; Hebl & Dovidio, 2005; Zebrowitz & Collins, 1997), empirical research in personality and social psychology focuses primarily on the self-report of internal processes.

In the past few years, closer scrutiny of the empirical research in personality and social psychology has highlighted this issue. In a brief commentary, Baumeister and Vohs (2006) contrasted the goal of the American Psychological Association's "Decade of Behavior" with the reality of what was actually published in its consensus premier journal—the *Journal of Personality and Social Psychology* (*JPSP*). In a small sample of 24 articles from two issues in 2005 and 2006, Baumeister and Vohs found that only one study in a total of 76 separate studies used measures of participants' actual verbal or nonverbal behavior. In a more extensive analysis, tracing the changing incidence of behavioral research in *JPSP* over time, Baumeister, Vohs, and Funder (2007) sampled selected issues (March and May) from 1966, 1976, 1986, 1996, and 2006. Every empirical study from every article in those issues was coded in terms of whether it contained any behavioral measure, either in manipulating the independent variable or as a dependent measure. The pattern over time was striking, with behavioral measures dropping from almost 80% in 1976 to less than 20% in 2006.

To determine whether this sharp decline in behavioral research was limited to the premier journal in the field or held more broadly in personality and social psychology, Patterson (2008) examined another prestigious outlet for personality and social psychology research, *Personality and Social Psychology Bulletin* (*PSPB*). A sample as comparable as possible to that of Baumeister et al. (2007) was selected, starting with the March and May issues of 2006 and working backward to 1976, the second volume of the journal. This included a total of 134 empirical studies over the period. The coding system in the Patterson (2008) analysis was similar to that of Baumeister et al. (2007) in identifying behavioral independent and dependent variables. An additional distinction was made in the type of dependent measures employed in the studies. Specifically, Patterson (2008) differentiated between "directly social" measures (e.g., face-to-face behavior in the form of verbal self-disclosure, smiling, complying to a request, or helping a physically present individual) and "indirectly social" measures (e.g., reaction times, test performance, shocking a remote "subject," and choices in a prisoner's dilemma game). It should be emphasized here that self-reports of past behavior and hypothetical future behaviors were not coded as behavioral. That is, what people report they did or were likely to do are not behavioral measures; they are self-reports.

The results of the Patterson (2008) analysis were similar to the findings of Baumeister et al. (2007). In particular, the percentage of studies with either the independent or dependent behavioral variables dropped from approximately 70% in 1976 to approximately 25% in 1996 and 2006. The incidence of directly social measures (e.g., face-to-face measures such as smiling, complying, or helping) decreased from approximately 13% of the studies in 1976 to approximately 4% of the studies in 2006. The incidence of indirectly social measures (e.g., test performance or reaction time measures) decreased from approximately 30% in 1976 and 1986 to approximately 5% for 1996 and 2006 combined. Thus, the results from *JPSP* and *PSPB* showed a steep decline in published behavioral research over the past several decades.

Baumeister et al. (2007) discussed several possible reasons for this dramatic decline in behavioral measures in *JPSP*, most of which also apply to *PSPB*. An obvious, first reason is that self-report studies are usually much easier to conduct than are studies involving the direct observation and measurement of behavior. Self-report data can be collected conveniently in large groups. In addition, computerized formats and scoring can simplify the methodology and facilitate the rapid analysis of results. Second, the policies of institutional review boards (IRBs) have become more restrictive over time and may discourage behavioral studies. That is, the observation of overt behavior, particularly if participants are not anonymous, may require greater care in ensuring informed consent and protecting participants' privacy. Third, the segmentation of *JPSP* into three distinct sections—Attitudes and Social Cognition, Interpersonal Relations and Group Processes, and Personality Processes and Individual Differences—in 1980 may have accelerated a neglect of behavioral research at a time when there was a growing emphasis on internal, cognitive processes. Because the Attitudes and Social Cognition section in *JPSP* specifically focused on cognitive processes, articles in this section were even less likely to employ behavioral measures. Although *PSPB* did not undergo a similar split into separate sections, the increasing emphasis on studies of internal processes was also evident over time.

Finally, Baumeister et al. (2007) proposed that, in recent years, prestigious journals in personality and social psychology increasingly required multiple studies. As a result, the investment of time, energy, and resources in behavioral studies becomes riskier than quickly conducting self-report studies. This is especially the case when the failure to find significant differences makes publication unlikely. This pressure for multiple studies may be particularly salient for the growing number of newly-minted social cognition PhD's over the past few decades. That is, the expectations for publishing in prestigious journals to secure tenure and promotion put new PhD's under even greater pressure to complete their studies quickly.

Behavior in *Human Communication Research* and the *Journal of Language and Social Psychology*

The purpose of the present study was to determine if the declining incidence of behavioral studies in *JPSP* and *PSPB* was also characteristic of interdisciplinary language and communication journals that focused on issues similar to those in *JPSP* and *PSPB*. There are, of course, important differences between the social psychology and

communication disciplines including, but not limited to, the following: (a) a greater emphasis on theory-driven research in social psychology, compared with more descriptive research in communication; (b) a wider range of methods in communication research than in social psychology research; and (c) a greater focus on consistencies in the patterns of data in social psychology, compared with a typical focus on the variability in the patterns of data in communication (Hornsey, Gallois, & Duck, 2008). Nevertheless, both disciplines frequently address similar issues and problems in their major journals. In pursuing this disciplinary comparison, we decided to examine two major competitive peer-reviewed journals in communication and language that focused on interpersonal processes similar to those in social psychology and typically published experimental research—*Human Communication Research* (*HCR*) and the *Journal of Language and Social Psychology* (*JLSP*). Because language and communication phenomena seem to be more behaviorally focused than many of the issues in *JPSP* and *PSPB*, we assumed that behavioral measures of some type would be more frequent in *HCR* and *JLSP* than in *JPSP* and *PSPB*. The issue here, however, was not a comparison of the overall level of behavioral research across the two types of journals, but an examination of the relative *changes* in the frequency of behavioral research over time.

Thus, the first and basic issue in this study may be stated as follows: Is the decline in behavioral research in *JPSP* and *PSPB* over time also characteristic of *HCR* and *JLSP*? Second, whether the trends for behavioral research in the two types of journals are similar or different, what might contribute to the obtained patterns? Two of the potential reasons for the decline in behavioral research in personality and social psychology, mentioned by Baumeister et al. (2007), also apply to language and communication research. First, self-report studies are typically much easier and more efficient to conduct than are behavioral studies. Second, the increasingly restrictive policies of IRBs tend to discourage behavioral research. The third possible reason for declining behavioral research in personality and social psychology is the increased pressure for multiple-study articles in prestigious journals. This circumstance leads to two related questions: (a) To what extent is the pattern of increased multiple-study articles in *JPSP* and *PSPB* also present in *HCR* and *JLSP*? (b) How do the patterns of multiple-study articles over time relate to the frequency of behavioral studies?

A final issue involves the relative frequency of the types of behavioral dependent measures used in the *PSPB* sample versus the *HCR* and *JLSP* samples. That is, are directly social or indirectly social dependent measures more frequently used in the two types of journals?

Method

Sample

To make direct comparisons with *JPSP* and *PSPB*, we sampled the same years as those in the Baumeister et al. (2007) and Patterson (2008) articles with two important modifications. First, we started with the 1986 issues, the first decade in which both *HCR* and *JLSP* were published. Second, because there were fewer articles published per year in *HCR* and *JLSP* than in *JPSP* and *PSPB*, all the empirical articles across a

2-year period were coded. Thus, the 1986-1987, 1996-1997, and 2006-2007 issues were examined. For these periods, the comparative data in the figures for *JPSP* and *PSPB* are from the previously collected 1986, 1996, and 2006 samples only.

Coding

The coding system was the same as that employed in the Patterson (2008) analysis. First, a *behavioral independent variable study* involved some manipulation of a behavioral variable, whether this was a videotape, audiotape, specific language use, or face-to-face behavior of a confederate. Vignettes and descriptive accounts of events or relationships were not coded as behavioral.

Next, a *behavioral dependent variable study* might be coded in one of two categories. Studies were coded as having *directly social dependent measures* if they contained some form of verbal, nonverbal, or computer-mediated reaction to another person. Examples include verbal self-disclosure in an interview, amount of smiling in an interaction, complying with a request, helping another person, reading a speech, generating discussion topics, or participating in computer-mediated communication. Studies were coded as having *indirectly social dependent measures* if they contained measures that were judged as less direct and interpersonal in nature. Examples included measures such as reaction time, performance on an individual task, and choices in a prisoner's dilemma game. Note that a given study might be coded as having both independent and dependent behavioral measures. If multiple dependent measures were employed in a given study, it was also possible that a study could be scored as using both directly and indirectly social dependent measures.

Two of us (MP and MT) worked together in practicing the coding of several issues of *JLSP*. Then, we made independent judgments first on the presence of behavioral independent and dependent variables. If a study was coded as having a behavioral dependent measure, then additional judgments were made on whether it contained directly social and/or indirectly social behavioral measures. A reliability check on a sample of 25 studies in *JLSP* across three independent categories (independent variable, directly social dependent measure, indirectly social dependent measure) demonstrated an 89% level of agreement between coders. After resolving the discrepancies on this set of studies, typically on whether a dependent measure was a directly social or indirectly social measure, one coder (MT) did the rest of the coding for the remaining *JLSP* and *HCR* issues. In the few instances when a coding question arose on the remaining set of studies, the second coder (MP) was consulted and a final judgment was made.

Results

Combined Behavioral Independent and/or Dependent Variables

The first comparison involved the proportion of studies employing either behavioral independent or dependent variables. That is, a study was scored behavioral if there were either a behavioral independent variable manipulation or a behavioral dependent variable. Figure 1 combines the results from Baumeister et al. (2007) for *JPSP* from

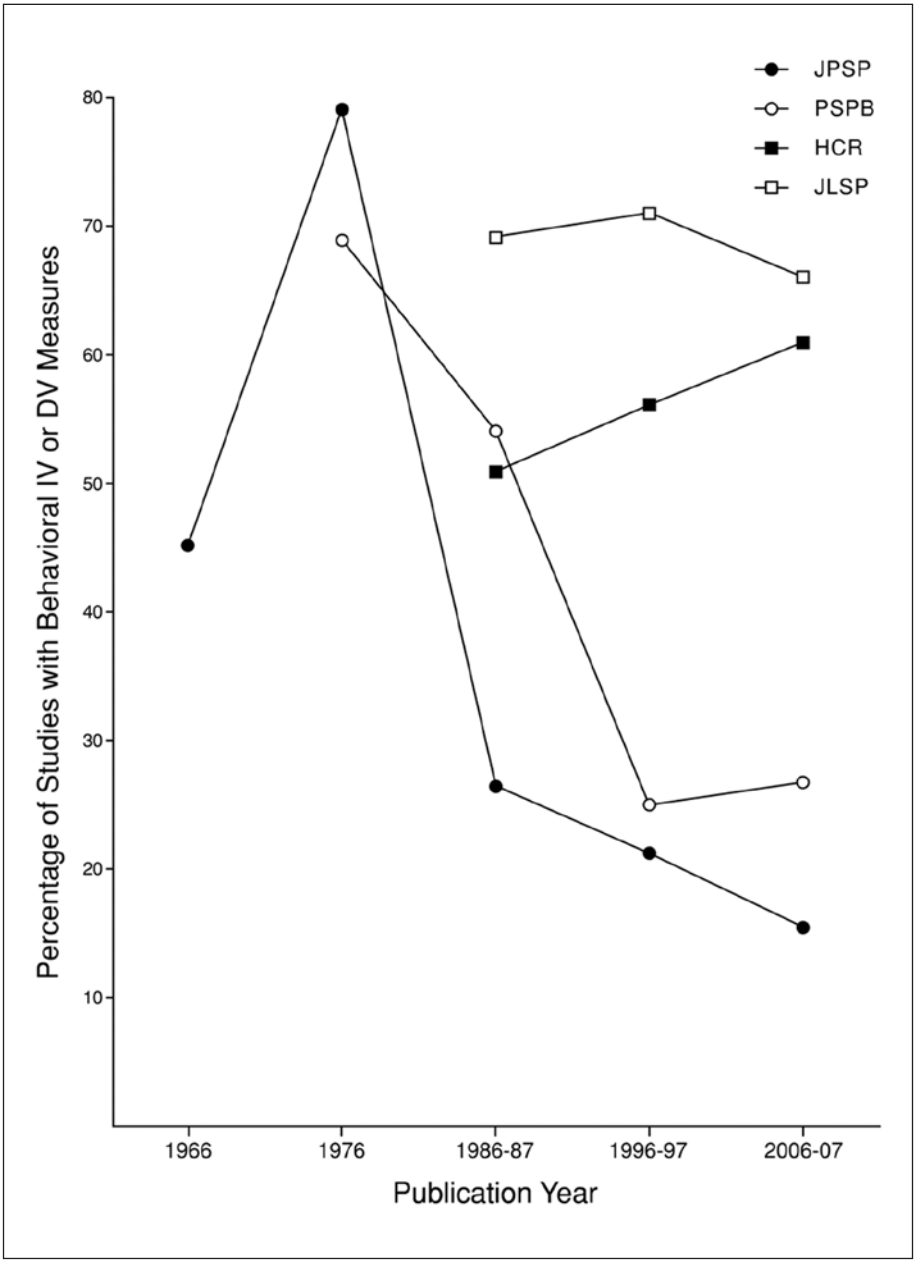

Figure 1. Percentage of studies with either behavioral independent variable or behavioral dependent variable measures

1966 to 2006 and from Patterson (2008) for *PSPB* from 1976 to 2006 with the new analysis of *HCR* and *JLSP*. Because the *HCR* and *JLSP* samples only started with 1986 and included two adjacent years at each point on the x-axis, there are only three data points for those journals.

The contrasting patterns between *JPSP* and *PSPB* on the one hand and *HCR* and *JLSP* on the other are evident in Figure 1. Differences in the changing proportions of behavioral studies over time within each of the four journals were examined by z tests for proportion values (Anderson, Sweeney, & Williams, 2007). The proportion of behavioral studies in *JPSP* and *PSPB* was highest in 1976. From 1976 until 2006, the proportion of behavioral studies dropped precipitously in *JPSP* ($z = 6.60$, $p < .001$) and in *PSPB* ($z = 3.63$, $p < .001$). This was a decline of approximately 80% in *JPSP* and 60% in *PSPB*. From the 1986-1987 common baseline for all four journals until 2006-2007, there was still a significant decrease in the proportion of behavioral studies in *PSPB* ($z = 2.02$, $p <. 05$), but not in *JPSP* ($z = 1.23$, $p > .10$). Of course, by 1986, only about one-quarter of the studies in *JPSP* included some behavioral measure, so there was a limit to additional decreases. Thus, the approximate 10% decrease in behavioral studies in *JPSP* from 1986 to 2006 was not statistically significant.

In contrast, the proportion of behavioral studies in *HCR* showed a nonsignificant increase from 1986-1987 to 2006-2007 ($z = -.88$, $p > .10$). In addition, the proportion of behavioral studies in *JLSP* remained relatively steady from 1986-1987 to 2006-2007 ($z = .04$, $p > .10$). Thus, *HCR* and *JLSP* did not show the decline in the proportion of behavioral studies that was characteristic of the *JPSP* and *PSPB*. Finally, it might be noted that the percentage of behavioral studies in *HCR* and *JLSP* in 2006-2007 was approximately at the level of behavioral studies in *JPSP* and *PSPB* in 1976, before their steep decline in subsequent decades.

Multiple-Study Patterns Over Time

Next, the pattern of multiple-study articles over time was examined for the issues of *JPSP*, *PSPB*, *HCR*, and *JLSP* sampled in the earlier analyses. For all the empirical articles in the issues sampled, we counted the number of studies and divided by the number of articles. The results in Table 1 show a clear pattern of increased mean numbers of studies per article over time in *JPSP* and *PSPB*, but not in *HCR* and *JLSP*. In the 1986-1987 period, the mean numbers of studies per article were relatively similar for all four journals, ranging from 1.17 to 1.46 studies per article. Compared with the 1986-1987 baseline, the mean numbers of studies per article in the 2006-2007 samples increased by 152% in *JPSP*, 73% in *PSPB*, 4% in *HCR*, and 6% in *JLSP*. In the context of the results in Figure 1, this indicates that as the mean numbers of studies per article increased over time in *JPSP* and *PSPB*, the proportion of behavioral studies decreased. In contrast, for *HCR* and *JLSP*, the mean number of studies per article remained relatively constant over time, as did the proportion of behavioral studies.

One might also examine how the small proportion of behavioral studies is distributed across the multiple-study articles in *JPSP* and *PSPB*. Perhaps multiple-study articles started with a behavioral study and, after reporting the initial behavioral results, moved to more efficient, nonbehavioral measures in pursuing additional questions. Thus, the basic focus might be behavioral, but additional qualifying studies would employ some type of self-report measures. If this were the case, then a substantial proportion of multiple-study articles in *JPSP* and *PSPB* would contain a mix of behavioral and nonbehavioral measures. In fact, 84% (16/19) of the multiple-study articles in the *JPSP* sample and 94% (30/32) of the multiple-study articles in the *PSPB* sample employed either all behavioral measures or all nonbehavioral measures. Thus, the decreased proportion of behavioral studies in these two journals was not the product of starting with a behavioral focus in an initial study and later moving to more economical nonbehavioral measures as increasingly more studies per article became the norm.

Table 1. Number of Individual Studies per Article Over Time

Journal	1966	1976	1986-1987	1996-1997	2006-2007
Journal of Personality and Social Psychology	1.08	1.39	1.46	2.21	3.68
Personality and Social Psychology Bulletin		1.30	1.18	1.50	2.05
Human Communication Research			1.25	1.33	1.30
Journal of Language and Social Psychology			1.17	1.11	1.24

Note. The results in the table are based on the same journal issues sampled in Figure 1.

Another way of examining this relationship is through within-journal issue correlations between the number of studies in a given article and the proportion of studies in a given article with behavioral measures. We chose the 2006-2007 period because it had the largest range in the number of studies per article for *JPSP* and *PSPB*. Because the range in the number of studies in *HCR* and *JLSP* was so restricted (80% of the articles had just a single study), we did not expect to find a significant negative correlation. In fact, the correlation between the number of studies in an article and the proportion of behavioral studies was not significant for either *HCR*, $r(43) = .09$, or *JLSP,* $r(32) = -.14$. The correlations for *JPSP* and *PSPB* were $r(20) = -.40$, $p < .10$, and $r(20) = .15$, $p > .10$, respectively. For *JPSP*, the relationship between increasing numbers of studies per article and a decreased proportion of behavioral studies approached significance.

Thus, in the 2006-2007 period, single-study articles were the norm for *HCR* and *JLSP*, but not for *PSPB* and, especially not for *JPSP*. In fact, in the 2006 *JPSP* sample, there were only two single-study articles, but nine articles containing either five or six studies. The latter group of articles contained 47 separate studies and none of them measured interpersonal behavior. Even though a sample of two articles is too small to inspire confidence, the contrast to the typical multiple-study articles was stark and these two examples may be instructive. One article described the application of a new digital voice recorder to determine how personality was manifested in participants' everyday natural conversations. That is, participants' verbal behavior was systematically sampled and recorded throughout the day. These samples were then analyzed across a wide range of linguistic categories and correlated with independent, self-report measures of personality (Mehl, Gosling, & Pennebaker, 2006). Thus, these researchers actually measured mundane verbal behavior in field settings and correlated those measures with personality scores. The second single-study article also examined mundane social behavior of participants as reflective of personality and well-being. In this case, the participants were orangutans in zoological parks and behavior ratings were developed to characterize personality types and general well-being (Weiss, King, & Perkins, 2006). This was a fortunate choice of measurement strategy because the self-reports of orangutans may be unreliable.

Behavioral Dependent Measures

Next, the changes in the percentage of studies specifically with behavioral dependent measures were examined. Because the classification of directly and indirectly social behavioral dependent measures was limited to Patterson's (2008) analysis of *PSPB* articles, Figure 2 does not contain any results for *JPSP*. Although there was some variability in the percentages in Figure 2 for both the directly social and indirectly social measures within a journal over time, only one change was statistically significant. Specifically, the decrease in the proportion of directly social measures in *PSPB* from 1986-1987 (31%) to 1996-1997 (0%) was statistically significant, $z = 2.58$, $p < .01$. More generally, the proportion of studies with directly social behavioral measures for the period of 1986-1987 to 2006-2007 was significantly greater in *HCR* (31%) and *JLSP* (44%) than in *PSPB* (7%), $z = 4.26$, $p <.001$, and $z = 5.80$, $p < .001$, respectively. In contrast, there were no differences among the proportion of studies employing indirectly social behavioral measures among *PSPB* (14%), *HCR* (15%), and *JLSP* (12%). Finally, an interesting compensatory pattern in the relative changes in the directly social and indirectly social measures for *HCR* and *JLSP* can also be seen in Figure 2. Specifically, for both journals, as the directly social measures increased from 1986-1987 to 1996-1997 and then decreased from 1996-1997 to 2006-2007, the opposite pattern was present for the indirectly social measures.

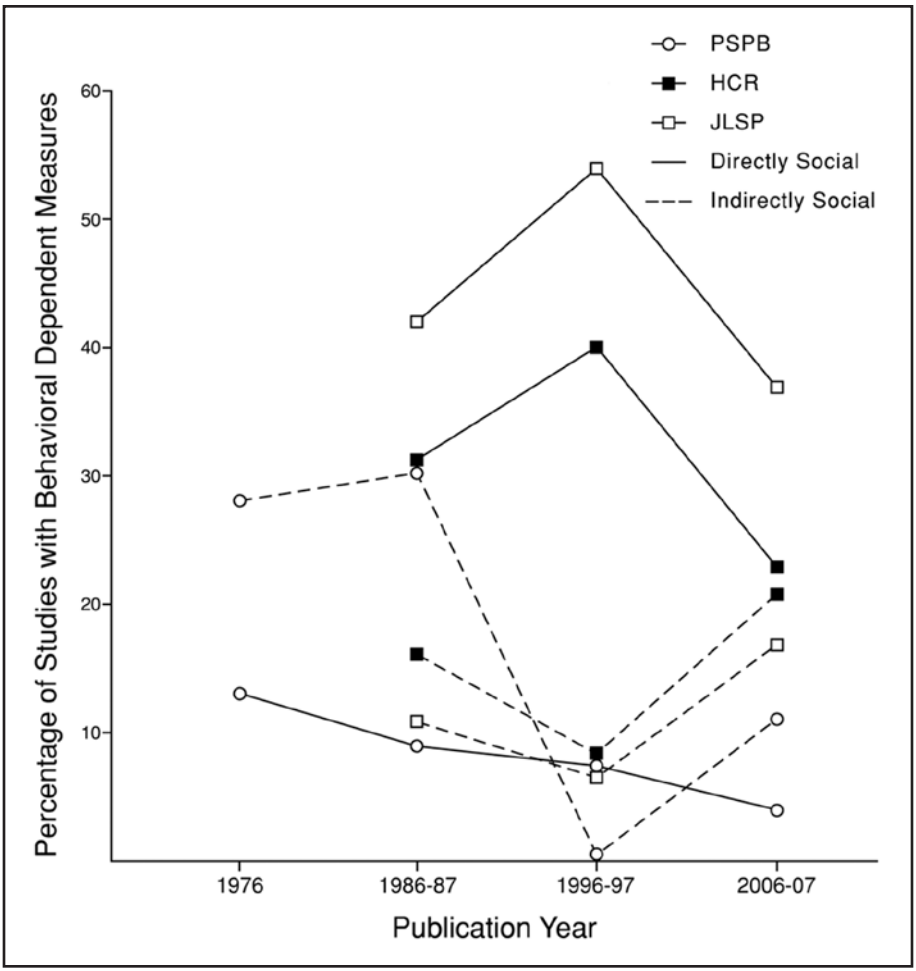

Figure 2. Percentage of studies with behavioral dependent variable measures

Discussion

First, it should be noted that we assumed that the obvious focus on communication and language in *HCR* and *JLSP* would promote greater attention to behavioral measures in these two journals than in *JPSP* and *PSPB*. Thus, the overall "main effect" of journal type was not the primary focus, but rather, the contrasting patterns across journals over time. Specifically, the decline in behavioral studies in *JPSP* and *PSPB* over the past several decades was not present in *HCR* and *JLSP* over the 1986-1987, 1996-1997, and 2006-2007 samples. Much of the decline in behavioral research in

PSPB, and especially in *JPSP*, occurred prior to the 1986-1987 period. Nevertheless, the proportion of behavioral studies in *PSPB* decreased significantly after 1986-1987, whereas the proportion of behavioral studies in *JPSP* showed a nonsignificant decrease after 1986-1987. The smaller, nonsignificant decrease in *JPSP* between 1986-1987 and 2006-2007 (from approximately 26% to 16%) was the likely product of a basement effect. That is, there was little room for additional significant decline. In contrast, the proportion of behavioral studies *HCR* and *JLSP* remained stable, and generally above 50%, between 1986-1987 and 2006-2007.

Additional comparisons examined the relative frequency of directly social and indirectly social behavioral dependent variables in *HCR*, *JLSP*, and *PSPB*. The higher relative frequency of studies with behavioral dependent measures in *HCR* and *JLSP* than in *PSPB* was especially evident for the directly social behavioral measures. That is, more mundane interpersonal measures, such as verbal communication, nonverbal behavior, and written or computer-mediated communication were far more common in *HCR* and *JLSP* than in *PSPB*. These kinds of measures typically require greater time in coding than do indirectly social measures, such as reaction times or scores on a performance task.

Why the Differences?

What might contribute to the contrasting patterns in behavioral studies over time? Among the reasons Baumeister et al. (2007) listed for the decline of behavioral research in personality and social psychology, two basic issues are common across research published in both psychology and language/communication journals. Specifically, self-report studies are easier to conduct than are behavioral studies and the constraints of IRB committees seem to be increasing. Thus, it is unlikely that either of these factors is, in itself, responsible for the contrasting incidence of behavioral studies across the different kinds of journals over time. Next, the segmentation of *JPSP* into three separate sections might have accounted for some of the decrease in behavioral studies over time in that journal, but not in *PSPB*, where the journal was not segmented. Hence, we return to the increased pressure over time for multiple studies in *JPSP* and *PSPB* that was not evident in either *HCR* or *JLSP*.

The results in Table 1 showed a clear pattern supporting the Baumeister et al. (2007) judgment of increased multiple studies over time in prestigious personality and social psychology journals. Specifically, the number of studies per article increased substantially in both *JPSP* and *PSPB*. In contrast, the number of studies per article remained quite stable over time in *HCR* and *JLSP*. For the 2006-2007 period, there were approximately three times as many studies per article in *JPSP* than in both *HCR* and *JLSP*. In addition, the negative correlation between the number of studies per article and the proportion of behavioral studies per article in the 2006-2007 *JPSP* samples approached significance, but not in the *HCR* and *JLSP* samples. Furthermore, the decreased incidence of behavioral studies in *JPSP* and *PSPB* over time, as the number of studies per article increased, was not the product of starting with an initial behavioral study and

then moving to more economical nonbehavioral measures in subsequent studies. Authors were consistent in their use of nonbehavioral or, much less frequently, behavioral measures across multiple studies in an article.

There are also other broader conceptual and methodological differences between social psychology and communication that may contribute to the differences reported here. In particular, Hornsey, Gallois, and Duck (2008) discuss a number of contrasts between the two disciplinary approaches that affect the conduct of research and the selection of independent and dependent variables. Two of these differences are particularly relevant to our results. First, in social psychology research, a premium is placed on internal validity and the value of experiments and quantitative measurement. Although experiments and quantitative measurement are common in communication research, there is typically a greater emphasis on external or ecological validity than in social psychology research. This probably contributes to an increased use of mundane behavioral measures in communication research. Second, social psychology research is more focused on determining causal relationships and replication that require multiple experiments. In contrast, communication research is more focused on describing the complexity of communication and simply documenting the relationships among variables—goals that are often possible in single-study articles (Hornsey et al., 2008). To the extent that these differences have accelerated over the past several decades, they may well contribute to the changes observed over time in the present study.

Implications

If the increasing pressure for multiple studies in personality and social psychology journals does, in fact, discourage scholars from conducting behavioral studies, it is an unfortunate circumstance for research. We will not only know less about how people actually behave, but we also suffer in terms of the methodological rigor of our research. Because no research method is without bias, reliance on a single self-report measure conflates construct and method effects. Years ago, Webb, Campbell, Schwartz, and Sechrest (1966) advocated the use of different, independent methods of measurement, including a variety of behavioral measures, to demonstrate convergent validity and to increase confidence in results. In addition, even when the primary focus is cognitive processes, the inclusion of behavioral measures provides an opportunity to assess the behavioral correlates of specific social cognitions and judgments.

There is another interesting implication for the trend of multiple studies in journals such as *JPSP* and *PSPB*. Specifically, the norm of two times as many studies, or more, per article in *JPSP* and *PSPB* in 2006 than in 1986 suggests that the value of any single study is substantially decreased. If so, is it possible that the value of a given study in a multiple-study article decreases because it is typically self-report and rarely behavioral in nature? So, is a single behavioral study really worth more than a single self-report study? Perhaps, but it may be difficult to determine that without also knowing the number of submissions rejected, the distribution of the number of studies in the rejections, and proportions using behavioral measures. Nevertheless, the contrast,

reported in the Results section, suggests an implicit recognition of the decreased value of self-report and reaction time studies. If self-report and reaction time measures are the "currency" of publication, inflation may require more studies to "purchase" a publication.

There may be other costs of the multiple-study trend in personality and social psychology. As the pressure for multiple studies in psychology was growing, Wegner (1992) wrote of the "premature demise of the solo experiment." He suggested that multiple-study articles reduce creativity by discouraging single, imaginative studies that might otherwise stimulate interest in a new idea or process. Innovation is discouraged in favor of the safe, boring repetition of several studies, each varying only slightly from one another—another characteristic of social psychology research mentioned by Hornsey et al. (2008). Wegner also suggested that multiple-study articles promote "microcertainty" by serially eliminating potentially interesting options. Thus, what is left is a safe, but small idea. Instead of expanding creative possibilities, successive studies limit the original idea and smother interest in the bigger picture (Wegner, 1992).

Conclusion

The pattern of decreasing proportions of behavioral studies over time in *JPSP* and *PSPB*, along with an increase in the number of studies per article, was not characteristic of the trends in *HCR* and *JLSP*. The contrasting trajectories of behavioral studies in the two kinds of journals are likely influenced by a variety of factors, including the greater pressure for multiple studies in *JPSP* and *PSPB* than in *HCR* and *JLSP*. That is, because multiple behavioral studies typically require a much greater investment of time and energy than self-report studies, they are infrequent in *JPSP* and *PSPB*. In turn, these differences may also be affected by increasing disciplinary differences between social psychology and communication over time (Hornsey et al., 2008).

We would not wish to end with any unnecessary impression that we are antithetical to self-report procedures. How people report prospectively their thoughts, feelings, and interaction strategies are clearly relevant for current and future behavior. Nevertheless, we lament the decreasing attention afforded behavioral outcomes in the personality and social psychology journals we sampled. Obviously, the analysis of other journals across disciplines and nations would now be informative and, especially so, if finer-grained codings of both cognitions and behavior were incorporated. Moreover, it would be worthwhile surveying researchers of different generations to determine their own accounts of these phenomena and to encourage them to articulate the reasons for their own methodological decision making.

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