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THE HISTORY AND CURRENT STATUS OF BEHAVIOR AND SOCIAL ISSUES: 1978-2016

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ABSTRACT: We discuss the inception and history of *Behavior and Social Issues (BSI)* and its predecessor journals, *Behaviorists for Social Action Journal* and *Behavior Analysis and Social Action*, as the journals approach 40 years of combined publication. In addition, we conducted a quantitative analysis of *BSI's* article impact, content, and frequent contributors to date. Data indicate that *BSI* has served as a valuable outlet to discuss and conceptualize applications of behavior analysis to a range of social issues. KEYWORDS: bibliometric analysis; history; social issues; behavior analysis

Nearing 40 years of publication, *Behavior and Social Issues (BSI)* has covered a range of topics under the broad umbrella of social justice, human rights, and sustainability. It has been unique among behavioral journals in the topics addressed, open accessibility of the journal, and unique history that shaped the foci of the journal. This paper takes the opportunity to reflect on the evolution of *BSI* by providing both a description of the context and history that has shaped the content of the journal over the past four decades and a quantitative analysis of *BSI*'s publication record to date.

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History

BSI and Behaviorists for Social Responsibility (BFSR), the oldest Special Interest Group (SIG) in the Association for Behavior Analysis: International (ABAI), began at a symposium submitted by three Western Michigan University graduate students entitled "Radical Political Behaviorism" at ABAI's predecessor, the Midwestern Association for Behavior Analysis (MABA) conference in 1976 (Morrow, 1978a). Following the success of the MABA symposium, connections were formed between the Western Michigan group and a group of "Marxist operant conditioners" at California State University at Sacramento (CSUS), who attended the symposium, resulting in the first meeting of the Radical Political Behaviorists at MABA 1977. The group softened their name to Behaviorists for Social Action (BFSA) in an effort to cast a wider progressive umbrella (Morrow, 1978a), and held their first official meeting at the 1978 MABA conference. The meeting attracted a number of behavior analysts who shared an interest in applying their behavior-analytic expertise to promoting progressive social change.

Almost from its inception, BFSA published a scholarly journal called, fittingly (if not overly imaginatively), *Behaviorists for Social Action Journal (BFSAJ)*. Joe Morrow, then at CSUS, was the Editor of *BFSAJ* for its formative years (1978-1981). He notes "1978 was a time of my ultraleftism. The journal was in red² which most Xerox machines won't copy" (J. E. Morrow, personal communication, July 12, 2016). The back page of Volume 1 #1 contained an academic and radical call to arms, a mission statement of sorts. It stated that BFSA was formed:

...to involve those committed to an operant analysis of behavior against social injustice. We will unite with those in education, health care, and social services in their efforts to serve the people. Our involvement also includes efforts to combat racism, sexism, ageism, unemployment, unsafe working conditions, economic exploitation of workers and salary earners, and the threat of war.

We seek to infuse these activities with a scientific analysis of individual behavior—both practical and theoretical—which, when coupled with a scientific analysis of society, can lay the basis for a just society, eventually to be free of the abuses that characterize the present one. (Morrow, 1978b)

In addition, the letter encouraged readers to form local BFSA groups "whose members will recruit and involve other persons committed to the science of behavior in *Behaviorists for Social Action*; join people in the struggle against social injustice...; contribute to the establishment and maintenance of a national journal to coordinate, describe, and theoretically advance social action." (Morrow, 1978b). Thus, the journal was an outlet to further the mission of BFSA³.

Morrow asked B. F. Skinner, at the time easily the most recognizable name in the behavior analysis community, to sign the BFSA call to action. "I showed Skinner the very radical back page of Volume 1 #1 and after he blanched he said he would sign if we could get 30 other folks to sign. Well, we got 45 and he signed" (J. E. Morrow, personal communication, July 12, 2016). And, indeed, Skinner is a signatory of the "radical" BFSA mission statement (Morrow, 1978b).

² The front and back covers of *BFSAJ*, both outside and inside, were colored a deep, dark red, in solidarity with radical Leftists of various theoretical and political allegiances.

³ The \$5.00 BFSA membership fee included a subscription to the journal, but one had the option of paying \$5.00 for the journal subscription without membership in what some behavior analysts perceived to be a far-left organization.

It was clear that even though a good number of behavior analysts were politically left-of-center, many of them were much more likely to label themselves as liberal or progressive than to adopt a radical (e.g., Marxist) stance. This conflict was addressed directly in the 1980 issue of *BFSAJ* (Volume 2 #2) in an article entitled "Toward Cooperative Behavior Between Pragmatic Behaviorists and Marxist Behaviorists: Philosophical, Empirical, and Social Action Considerations" (Rakos, 1980). Although editor Joe Morrow was politically on the far left, he recognized that the growth of BFSA was much more likely to be fostered by a less radical, albeit still left-of-center, journal. He believed he was not the best person to serve as editor of such a journal, therefore, he asked Richard Rakos, a psychology faculty member at Cleveland State University, to take on the editorship of *BFSAJ* as the first step in broadening the journal's philosophical and political focus.

Rakos agreed to take the post and in Rakos' opening editorial (Rakos, 1982), he praised Morrow's tenure as editor and the journal's importance in providing an outlet for ideas and debate that were not likely to be published elsewhere, either in general psychology or behavior-analytic journals, at that time in history. He followed up by insisting that BFSA would remain an organization open to a wide range of progressive ideas and the journal would continue to focus on behaviorism and social change. Perhaps to address any ongoing concerns regarding the extremism of BFSA, Rakos (1982) stated, "Though we are inevitably political, we endorse no particular political ideology, but instead, welcome all perspectives which seek to redress social injustice" (p. 1). He continued, "the dangerous and discouraging political situation in the world today requires that we intensify our efforts and utilize all opportunities to stimulate progressive social, political, and economic change."

According to Rakos (third author of this article), this call was made in response to the political climate at the time which included heightened tensions between the US and Iran in the aftermath of the 1979 Iranian hostage crisis and the election of a socially-conservative US President (Ronald Reagan). Thus, while manuscripts grounded in leftist approaches continued to be welcome, now more moderate (although still left-of-center) perspectives were encouraged and solicited, with a focus on those that embodied pragmatism more than ideology (e.g., Dewey, 1957).

The first issue of *Behavior Analysis and Social Action (BASA*), sporting a photocopy-friendly beige cover, was published in 1982 as Volume 3 #2. The cover design and much of the editorial board were changed to emphasize that the journal now welcomed a much wider range of progressive foci. Submissions continued to be subjected to blind review by two reviewers selected from members of the Editorial Board or behavior analysts with substantial scholarly accomplishments and a demonstrated concern for social justice. In addition, *BASA* was accepted by the APA into its PsycALERT and PsycINFO databases, meaning the journal would have greater visibility and a potentially larger impact.

In December 1989, after about a year of on-and-off negotiations between Robert Epstein, then Executive Director of the Cambridge Center for Behavioral Studies (Cambridge Center), and Rakos, the Cambridge Center took over publication of *BASA* as a companion to its recently acquired journal *Behavior and Philosophy* (previously *Behaviorism*). The Cambridge Center wanted both of its newly acquired journals to look the same and have parallel titles, so *BASA* morphed into *Behavior and Social Issues* (*BSI*), but now with numbering beginning anew with Volume 1, smaller *Behavior and Philosophy*-size pages, and a predominantly white cover design identical to *Behavior and Philosophy*. *BSI*'s first issue was dated 1991 (Volume 1 #1, Spring/Summer).

Rakos remained editor of *BSI* until December 1993 (Volume 3, #1 and 2), after which Janet Ellis, then a professor at the University of North Texas, assumed the editorship with Volume 4. Under her leadership, *BSI* further expanded the social issues targeted (e.g., education, criminal justice, welfare reform), while continuing to focus on conceptual content related to large-scale change and behavior analysis as a science (Ellis, 1994). Beginning with Volume 9, with the encouragement of the Behaviorists for Social Responsibility (BFSR) SIG—a name that had replaced "Behaviorists for Social Action" in 1996—the Cambridge Center began offering the journal both in print and in open access online.

A crisis for the journal came in 2000 when the Cambridge Center realized that the costs of publication and distribution could no longer be sustained. The Cambridge Center made the decision to stop publication with Volume 10 (2000). In response, the BFSR SIG approached the Cambridge Center and requested that the rights to the journal be returned to the SIG (from which it had originated) to allow for continued publication. The Cambridge Center agreed and facilitated transfer to the SIG.

BFSR began publication of *BSI* both in print and in open access online with Volume 11 (2001). Upon the transfer of the journal from the Cambridge Center to BFSR, Mark Mattaini, on faculty at Jane Addams College of Social Work at the University of Illinois at Chicago (UIC) became editor of *BSI*, and has continued in that role since. Mattaini's first editorial set the tone for the future of the journal. In it, Mattaini (2001) described the continued need to address human rights because "this is a world of interlocking cultural practices, in which some practices may produce rich reinforcers for the few, but only minimal reinforcers for many others..." (p. 1). He followed with a specific call to action for behavior analysts with an interest in social issues to engage in actions that might influence policy makers to make decisions that support human rights. Although by this time *BSI* had gone through two name changes and several publisher changes, the mission had changed little from the original BFSA mission statement (Morrow, 1978a) published over 20 years prior.

In 2006, *BSI* was offered a partnership with the University of Illinois at Chicago Library, which was beginning to support publication of open access journals that included UIC faculty on editorial boards, using the Open Journal Systems (OJS) package. After assuring that editorial independence was guaranteed, *BSI* gladly accepted this offer, and the partnership remains to this day. Over time, the number of paper subscriptions declined while the number of online downloads increased. With the shift to OJS and the UIC Library, the decision was made to shift to online publication only in 2010 and has continued with this structure to the present. In early 2017, BFSR completed a project to scan the full content of the predecessor journals (*BSAJ* and *BASA*) and make them available online as well (www.behaviorandsocialissues.org). In doing so, the publication record of *BSI* and its preceding titles has been positioned to continue influencing efforts to improve our society through the science of behavior. It has also made possible the subsequent analysis detailing the scholarship contained within its pages.

Quantitative Analysis

Within behavior analysis, it is common to reflect on a journal's impact and trends (e.g., special section of *Journal of Applied Behavior Analysis*, Volume 26[4], in 1993 to commemorate the journal's 25th anniversary with articles from a range of authors including Laties and Mace [1993] and Northup, Vollmer, and Serrett [1993]). This kind of analysis has not been conducted on *Behaviorists for Social Action Journal*, *Behavior Analysis and Social Action*, or *Behavior and*

Social Issues (hereafter collectively referred to with the current journal title, Behavior and Social Issues [BSI]). As such, a quantitative analysis was conducted to review and discuss the scholarly impact (i.e., most cited articles, journal citations), contributors (i.e., authors, institutions), and content (i.e., social issues addressed, empirical and conceptual analyses) of BSI.

Method

Article and Journal Influence

To analyze the impact of *BSI* articles, a query of citations to *BSI* and *BASA* was executed using the Publish or Perish© software application (Harzing, 2007) on February 28, 2017 (*Behaviorists for Social Action Journal* was not available). This software application retrieves data from Google ScholarTM resulting in a range of citations (i.e., results do not reflect only peer-reviewed journals). The data from this analysis are depicted in two analyses: (a) total citations to *BSI* and (b) 25 most-cited articles in the history of *BSI* (as available on Google Scholar). Interobserver data collection was not necessary because the data collection required limited subjectivity.

Authors and Publishing Institutions

To evaluate the most frequent *BSI* contributors, an analysis of all the articles since the journal's inception in 1978, excluding editorials by journal editors or brief forewords, was conducted, tracking authors and publishing institutions. The analysis was conducted by recording the authors and affiliations for each article. If the same institution was recorded for two or more authors on an article, the institution was counted once. Authors and institutions with more than 10 articles are ranked. Interobserver data collection was not necessary because the data collection required limited subjectivity.

Content Analysis

Topics. To evaluate the topics addressed in *BSI*, articles were coded by the primary social issue addressed (i.e., only one topic was scored per article). All articles from the journal's inception were included with the exception of editorials by journal editors or brief forewords. Articles that did not address a singular social issue were classified as "behavioral theory." Data from this analysis are represented as (a) number of articles by topic since the journal's inception and (b) number of articles by topic during the first decade (1978-1988) and most recent decade (2007-2016). For topics with more than 10 articles, cumulative totals by year were calculated. Interobserver data were collected on topic type for 21.2% of the articles. Interobserver agreement was calculated by totaling the number of agreements divided by the number of articles reviewed, resulting in 86.9% interobserver agreement.

Invited Topics. The number of topics addressed could be influenced by invited sections or targeted articles. To account for this potential increase in topic areas, all articles were reviewed for special sections (i.e., sections labeled "Special Series," "Special Section," "Forum," and "Focus") and lead and response articles (i.e., sections with a lead article followed by articles labeled "Response," "Response to Responses," and "Comment") in relation to the coded topic type. Data from this analysis are totaled by topic area. Interobserver agreement was not necessary due to the limited subjectivity in data collection.

Article Type: Empirical or Conceptual. Every *BSI* article was coded as primarily empirical or conceptual. An article was coded as empirical if it included: (a) clearly defined independent and

dependent variables examined with a research design (e.g., methods section, data presented), (b) data correlations with or without a manipulated independent variable, or (c) original data. If an article did not meet one of the preceding criteria, it was coded as conceptual. The data from this analysis are depicted as a cumulative total of conceptual and empirical articles by year. A second observer reviewed the coding of 20.2% of the articles. Interobserver agreement was completed by dividing agreements by total number of articles reviewed, resulting in 97.5% agreement.

Results

As of February 28, 2017, BSI articles have been cited a total of 3889 times. As shown in Table 1, the three most-cited articles are Glenn (1986), Lehman and Geller (2004), and Glenn and Malott (2004). Glenn has been cited 225 times in a variety of journals, such as The Behavior Analyst, Journal of Organizational Behavior Management, Behavior Therapy, and American Psychologist. The second most cited article, Lehman and Gellar, has been cited 214 times across a variety of journals, including Journal of Environmental Psychology, Journal of Public Administration Research and Theory, Canadian Psychology, and Journal of Sustainable Tourism.

Seven authors have published more than 10 articles in *BSI* (see Table 2). The most prolific authors are Sigrid Glenn with 19 publications followed by Chris Ninness with 17 publications. Glenn's publications have primarily focused on developing a conceptual framework to study cultural phenomenon (e.g., Glenn, 1986; Glenn & Malott, 2004; Glenn et al., 2016). Chris Ninness has published articles on a variety of topics, including education (Rumph, Ninness, McCuller, & Holland, 2007), functional assessments (Davis et al., 2008), and social skill development (Halle, Ninness, Ninness, & Lawson, 2016). Eight publishing institutions have had more than ten articles in *BSI* (see Table 3), with the University of North Texas as the leader with 32 publications followed by the University of Nevada, Reno with 26 publications.

Table 4 summarizes the 28 distinct topics identified in the journal ranging from feminism to organizational behavior management. The most frequently represented topics are behavioral theory (n = 84; e.g., cultural analysis, conceptual discussions, terminology clarifications), political science/policy making (n = 59), and education (n = 38). The most frequently addressed topics in the first and most recent decade have changed from political science/policy making, collective violence, and communities to behavioral theory, environmental sustainability, and criminal behavior (see Figure 1). This topic change is also apparent in Figure 2, which depicts a cumulative record of the topics with more than 10 articles since 1978. For instance, political science/policy making increased regularly until around 1998, at which point fewer articles were published on the topic. On the other hand, behavioral theory has increased rapidly since approximately 2003 and environmental sustainability has seen a consistent, although modest, increase since 2009.

The most frequent topics appear to be driven by the special sections and lead articles. Seven of the eight special sections and four of the lead articles are in the top three topic categories (see Table 4). For example, two special sections (total of 14 articles) and one lead article (total of 14 articles, including responses) have focused on behavioral theory. Thus, more than one third (n = 28, 36.3%) of the 77 articles on behavioral theory originate from highlighted/invited sections.

Table 1. Top 25 most cited articles

Rank	# of citations	Author(s)	Year	Title	Journal
1	225	Glenn, S. S.	1986	Metacontingencies in Walden Two	BASA
2	214	Lehman, P. K., Geller, E. S.	2004	Behavior analysis and environmental protection: Accomplishments and potential for more	BSI
3	191	Glenn, S.S., Malott, M. E.	2004	Complexity and selection: Implications for organizational change	BSI
4	118	Malott, M. E., Glenn, S. S.	2006	Targets of intervention in cultural and behavioral change	BSI
5	103	Vichi, C., Andery, M. A. P. A., Glenn, S. S.	2009	A metacontingency experiment: The effects of contingent consequences on patterns of interlocking contingencies of reinforcement	BSI
6	102	Greenwood, C.	1997	Classwide peer tutoring	BSI
7	88	Foxall, G. R., Castro, J. O., James, V. K.	2006	Consumer behavior analysis and social marketing: The case of environmental conservation	BSI
8	84	Glenn, S. S.	1989	Verbal behavior and cultural practices	BASA
9	81	Kubina Jr, R. M., Morrison, R. S.	2000	Fluency in education	BSI
10	73	Fournier, A. K., Geller, E. S., Fortney, E. E.	2007	Human-animal interaction in a prison setting: Impact on criminal behavior, treatment progress, and social skills	
11*	66	Houmanfar, R., Rodrigues, N. J.	2006	The metacontingency and the behavioral contingency: Points of contact and departure	BSI
11*	66	Weatherly, J. N., Brandt, A. E.	2005	Participants' sensitivity to percentage payback and credit value when playing a slot-machine simulation	BSI

13	60	Rakos, R. F., Steyer, K. R., Skala, S., Slane, S.	2008	Belief in free will: Measurement and conceptualization innovations	BSI
14	56	Bell, K. M., Naugle, A. E.	2006	Understanding stay/leave decisions in violent relationships: A behavior analytic approach	BSI
15	48	Greer, R. D.	1991	The teacher as strategic scientist: A solution to our educational crisis?	BSI
16	46	Dixon, M. R., Dymond, S., Rehfeldt, R. A., Roche, B., Zlomke, K. R.	2003	Terrorism and relational frame theory	BSI
17	45	Johnson, K.	1997	Morningside academy	BSI
18*	43	Glenn, S. S., Malagodi, E. F.	1991	Process and content in behavioral and cultural phenomena	BSI
18*	43	Houmanfar, R., Rodrigues, N. J., Ward, T. A.	2010	Emergence and metacontingency: Points of contact and departure	BSI
20	41	Guerin, B.	2006	Combating everyday racial discrimination without assuming "racists" or "racism": New intervention ideas from a contextual analysis	BSI
21	39	Wyatt, W. J., Midkiff, D. M.	2006	Biological psychiatry: A practice in search of a science	BSI
22	37	Wong, S. E.	2006	Behavior analysis of psychotic disorders: Scientific dead end or casualty of the mental health political economy?	BSI
23	37	Todorov, J. C.	2006	Laws and the complex control of behavior	BSI
24*	36	Nevin, J. A.	2003	Retaliating against terrorists	BSI
24*	36	Christens, B., Speer, P. W.	2005	Predicting violent crime using urban and suburban densities	BSI

^{*}Indicates a tie within the ranks.

Table 2. Authors with more than 10 publications in BSI

Rank	Author	# of articles	
1	Sigrid Glenn	19	
2	Chris Ninness	17	
3	Richard Rakos	15	
4	Mark Mattaini	14	
5	Jerome Ulman	13	
6*	Maria Malott	11	
6*	Robin Rumph	11	

^{*}Indicates a tie within the ranks.

Table 3. Institutions with more than 10 publications in BSI

Rank	Author	# of articles
1	University of North Texas	32
2	University of Nevada, Reno	26
3	Western Michigan University	18
4	Cleveland State University	16
5	Stephen F. Austin State University	15
6	Ball State University	13
7*	University of Kansas	11
7*	West Virginia University	11

^{*}Indicates a tie within the ranks.

Table 4. Type and number of topics addressed in BSI.

Topic		Special S	ections	Article	and Response
	# article(s)	# special section(s)	# articles	# lead article(s)	# response/ comment to lead article(s)
Behavioral theory	84	2	14	1	14
Political science/policy making	59	4	17		
Education	38	3	18	3	4
Communities	28			1	10
Clinical behavior analysis/behavioral health	25			2	10
Collective violence	23	3	13	1	4
Ethics	17			1	2
Environmental sustainability	16				
Diversity/bias	15				
Organizational behavior management	10			1	2
Social history	10				
Methodology	9	1	2		
Criminal behavior	9				
Developmental disabilities	7				
Health	7				
Social relations	7				
Criminal justice	6				
Feminism	6	2	5		
Training behavior analysts	5				
Child development and parenting	3				
Media processes	3				
Dissemination	3				
Gambling	3				
Decision-making	2				
Safety	2				
Sexuality	1				
Animal overpopulation	1				
Religion	1				

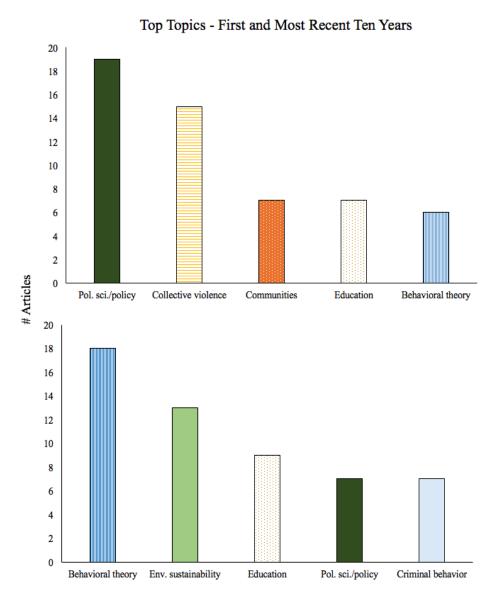


Figure 1. Most frequent topics addressed in the first decade (1978-1988, top) and most recent decade (2007-2016, bottom). Note: 1978-1988 covers an eleven-year period, but only ten years of publication.

Finally, as shown in Figure 3, a majority of the articles are conceptual in nature (n = 322, 83.2%). In the first decade of the journal (1978-1987), 68 of the 73 articles were conceptual (93%) and 5 were empirical (7%). In the second decade (1988-1997), 99 of the 114 articles were conceptual (87%) and 15 were empirical (13%). In the third decade (1998-2007), 117 of the 133 articles were conceptual articles (88%) and 16 were empirical articles (12%). In the most recent nine years, 42 of 79 articles were conceptual (53%), and 37 were empirical (47%). In total, half of the empirical articles have been published since 2009, indicating that there is an increasing trend in empirical articles in recent years.

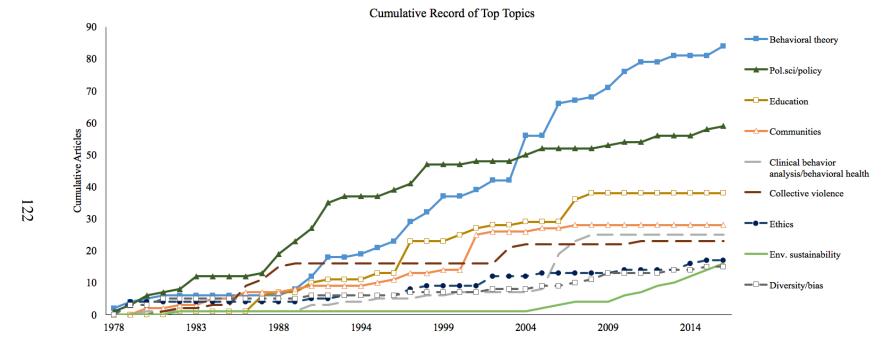


Figure 2. Cumulative number of articles in BSI for topics with more than 10 articles.

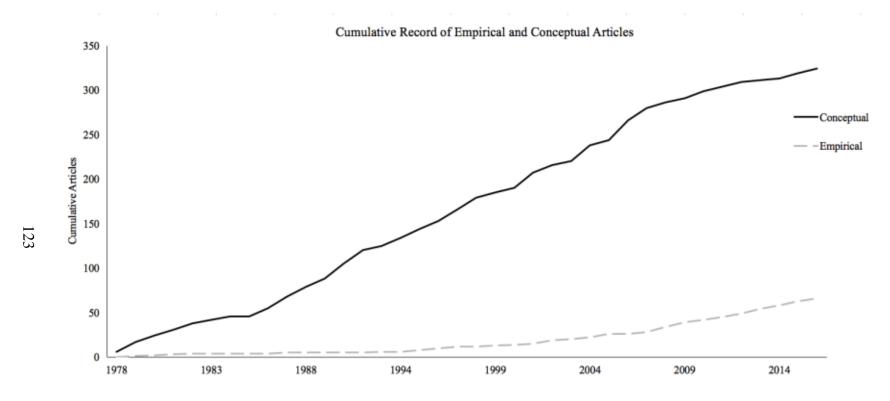


Figure 3. Cumulative number of empirical and conceptual articles in BSI.

Discussion

This paper reflected on the development and growth of the *Behavior and Social Issues* journal since its inception in 1978. This analysis was completed through a historical discussion of key events in the journal's history as well as a review of the journal's scholarly impact, contributions, and content to date. The data analyses highlight a number of interesting trends across all three areas. There have been 3389 total citations of articles in the journal (excluding articles not previously available online) and, as indicated in Table 1, 17 of the 25 most-cited articles were published in the last fifteen years. Eight institutions and seven authors have published more than 10 articles in the journal, accounting for 35.5% and 25% of the total articles published respectively.

BSI has covered a wide range of important social issues throughout its history and in various publication formats. The content has remained a mix of application and conceptual work, with heavy emphasis on cultural analysis and behavioral systems science. Although the topics have shown clear shifts in the specific content over time, they have been continually grounded in a commitment to social justice, human rights, and environmental sustainability. While there are encouraging areas of growth (e.g., environmental sustainability, criminal behavior), other topics frequently covered in the early years of the journal have decreased to zero or minimal articles in recent years (i.e., communities, collective violence). Increases in articles concerned with environmental sustainability, criminal behavior, and diversity/bias are justified as these topics have become increasingly more urgent due to continuing evidence of climate change, increasing incarceration rates, and the recent focus on implicit bias, disparities, and disproportionate outcomes for minority populations (e.g., Hirsh, Costello, & Fuqua, 2015; Murrell, Rogers, & Johnson, 2009; Weatherly & Kehn, 2013). However, it might be valuable to recruit and encourage submissions of articles in other areas, such as collective violence and activism, as world issues and political climates change.

Although the focus of this paper is on articles in *BSI*, a cursory exploration of other behavior-analytic journals reveals that some of the most prevalent topics in *BSI* and the predecessor journals are not well (if at all) represented in other behavioral journals. For example, a search of *The Behavior Analyst, Journal of Applied Behavior Analysis*, and *Behavior Analysis in Practice* yields few articles focused on politics/policy making, environmental sustainability, and criminal behavior, which are some of the most frequently covered recent topics in *BSI*. The results of this informal comparison suggest that *BSI* is the behavior-analytic journal of choice for these issues. However, it is unclear whether these topics of social significance are published in *BSI* because they are not deemed relevant for other behavior-analytic journals or because *BSI* is the first outlet typically chosen for these submissions. In a similar vein, future researchers might isolate one of the topics addressed in *BSI* for a more thorough review in both behavior-analytic and topic-specific journals (for example, the *Journal of Contextual Behavior Science*, *The Community Psychologist*, or the *American Journal of Community Psychology*).

The most frequent topic in *BSI* has been behavioral theory. A majority of these articles focus on conceptual clarifications, epistemology, behavior analysis as a natural science, and selection at the cultural level (e.g., Hayes & Hayes, 1992; Kolbe, 1978; Lee, 1999; Malott, 1992; Ulman, 1979) with an emphasis, especially in recent years, on exploring and elaborating testable frameworks for behavior-analytic—and particularly behavioral systems—approaches to organizations, communities, and cultures (e.g., Glenn, 1989; Houmanfar & Rodrigues, 2006; Krispin, 2016; Todorov, 2013). Although these articles are not focused on a specific social issue, many are focused on developing pragmatic and conceptually-consistent approaches for behavior analysts to

impact large-scale issues. As a result, for instance, behavior-analytic interventions may target systems (e.g., funding mechanism, regulations, policies) that promote or hinder pro-social behaviors (e.g., sustainability, criminal behaviors, employment) to have meaningful effects with societal-level issues. For example, Dagen and Alavosius (2008) used a behavioral systems analysis to examine interlocking behavioral contingencies among motorists and bicyclists as a means to address safety concerns, as opposed to targeting individual contingencies for a few specific cyclists.

Analysis of conceptual and empirical articles presents similar results in that most of the articles in *BSI* have been conceptual in nature, with a majority of the conceptual articles either focused on development of a theoretical approach to study organizational or cultural issues (e.g., Krispin, 2016; Todorov, 2013) or on an analysis of a topic areas from a behavior-analytic perspective (e.g., Grant, 2010; Mattaini, 1991; Sulzer-Azaroff, 1991). However, *BSI* has seen a recent increase in empirical articles, which is encouraging and perhaps indicative that the journal—and the discipline—are entering a new phase in an operant analysis of societal issues. Interestingly, a few recent empirical articles evaluated conceptual frameworks that were first introduced as conceptual articles in *BSI* (e.g., Smith, Houmanfar, & Louis, 2011).

This shift toward empirical articles is likely due to a number of variables, although one apparent contributor is editorial influence. For example, in 1983, then-editor Richard Rakos acknowledged that historically, the journal published predominantly theoretical and philosophical articles. He proposed that the impact of the journal may have been compromised by the lack of data-based articles, especially in light of the foci of the journal (i.e., behaviorism and social action), "both of which [behaviorism and social action] stress operationalization and intervention, and therefore should lead to empirical and descriptive reports" (Rakos, 1983, p. 25). He suggested that data-based articles would provide a natural complement to the theoretical articles typically published in the journal, and encouraged the submission of empirical articles. This message was repeated in his editorial in the following issue (Rakos, 1984). Despite these reminders, the journal continued to be filled with theoretical, and very few empirical, articles. In 2009, then-editor Mark Mattaini revived the conversation with a call for empirical articles. He stated, "Those who expect that cultural analytic science can make real contributions to addressing social, cultural and environmental issues have noted repeatedly that while interpretation and conceptual analysis are valuable components of an emerging science, the science cannot survive without data" (Mattaini, 2009, p. 1). He then pointed to several empirical articles in the 2009 issue, and encouraged readers to pursue similar work.

Another possible contributor to the recent increase in empirical articles may be organized think tanks (e.g., see Glenn et al., 2016) that have occurred in Campinas, Brazil in 2005, Oslo, Norway in 2007, São Paulo, Brazil in 2015, and Denton, Texas in 2016. Although most of the content of these meetings was conceptual, the conceptual material was intended to provide frameworks for advancing empirical behavioral systems science. According to our analysis, it was during this period that the journal started publishing a larger proportion of empirical articles.

Although there are eight institutions with more than ten publications since the journal's inception, there are only a few institutions that frequently publish in *BSI*. Although a more thorough analysis of other journals and other metrics should be completed, a potential explanation may be that there are only a few universities that provide training in behavior-analytic applications to societal issues. BFSR is currently working on The Matrix Project (bfsr.org), which is focused on using a systems approach to increase research and applications of behavior analysis to social issues (Mattaini & Luke, 2015; Mattaini, Luke, Grant, & Rakos, 2016; Mattaini, Rakos, & Grant,

2016). Specifically, the group is currently focused on arranging contingencies and systems to promote training and mentorship of students who want to pursue research or practice in topic areas identified in *BSI*. In this vein, *BSI* provides an outlet for faculty-mentored students interested in researching social issues, in particular topics with limited behavior analytic research or application.

Based on these analyses, the journal has consistently focused on using a scientific, behavioral approach to create a more just, nurturing, and healthy society (in line with the original mission set by the SIG). Although most of the topics addressed in *BSI* could be impactful if the articles were published outside of behavior-analytic journals, *BSI* continues to serve as a valuable outlet to discuss and evaluate social issues from a behavior-analytic perspective. Although *BSI* is, perhaps, a lesser known journal in behavior analysis, given the range of topics addressed, it appears to fill an important and underserved niche in both the discipline and society.

References

- Dagan, J. C. & Alavosius, M. P. (2008). Bicyclist and motorist environments: Exploring interlocking behavioral contingencies. *Behavior and Social Issues*, 17(2), 139-160. doi:10.5210/bsi.v17i2.2062
- Davis, R. L., Ninness, C., Rumph, R., McCuller, G., Stahl, K., Ward, T., & Vasquez, E. (2008). Functional assessment of self-initiated maladaptive behaviors: A case study. *Behavior and Social Issues*, *17*(1), 66. doi:10.5210/bsi.v17i1.1823
- Dewey, J. (1957). Reconstruction in philosophy. Boston: Beacon press.
- Ellis, J. (1994). Foreword. Behavior and Social Issues, 4(1-2), 1-2.
- Glenn, S. S. (1986). Metacontingencies in Walden Two. Behavior Analysis and Social Action, 5(2), 2-8.
- Glenn, S. S. (1989). Verbal behavior and cultural practices. *Behavior Analysis and Social Action*, 7(1/2), 10-15.
- Glenn, S. S., & Malott, M. E. (2004). Lead article complexity and selection: Implications for organizational change. *Behavior and Social Issues*, *13*, 89-106. doi:10.5210/bsi.v13i2.378
- Glenn, S. S., Malott, M. E., Andery, M. A. P. A., Benevenuti, M., Houmanfar, R. A., Sandaker, I, ... & Vasconcelos, L. A. (2016). Toward consistent terminology in a behaviorist approach to cultural analysis. *Behavior and Social Issues*, 25, 11-27. doi:10.5210/bsi.v25i0.6634
- Grant, L. (2010). Sustainability: From excess to aesthetics. *Behavior and Social Issues*, 19, 7-47. doi:10.5210/bsi.v19i0.2789
- Halle, S., Ninness, C., Ninness, S. K., & Lawson, D. (2016). Teaching social skills to students with autism: A video modeling social stories approach. *Behavior and Social Issues*, 25, 42-53. doi:10.5210/bsi.v25i0.6190
- Harzing, A. W. (2007). Publish or perish [computer software]. Retrieved from http://www.harzing.com/pop.htm
 Harzing, A. W. (2007). Publish or perish [computer software]. Retrieved from http://www.harzing.com/pop.htm
 Harzing, A. W. (2007). Publish or perish [computer software]. Retrieved from http://www.harzing.com/pop.htm
- Hayes, S. C. & Hayes, L. J. (1992). Mixing metaphors: Skinner, Chomsky, and the analysis of verbal events. *Behavior and Social Issues*, 2(1), 43-46. doi:10.5210/bsi.v2i1.173
- Hirsh, J. L., Costello, M. S., & Fuqua, R. W. (2015). Analysis of delay discounting as a psychological measure of sustainable behavior. *Behavior and Social Issues*, 24, 187-202. doi:10.5210/bsi.v24i0.5906
- Houmanfar, R. & Rodrigues, N. J. (2006). The metacontingency and the behavioral contingency: Points of contact and departure. *Behavior and Social Issues*, *15*, 13-30. doi: 10.5210/bsi.v15i1.342
- Kolbe, W. (1978). BF Skinner's radical behaviorism: Logical positivism or dialectical materialism?. *Behaviorists for Social Action Journal*, 1(1), 29-55.
- Krispin, J. V. (2016). What is the metacontingency? Deconstructing claims of emergence and cultural-level selection. *Behavior and Social Issues*, 25, 28-41. doi:10.5210/bsi.v25i0.6186
- Laties, V. G. & Mace, F. C. (1993). Taking stock: The first 25 years of the *Journal of Applied Behavior Analysis*. *Journal of Applied Behavior Analysis*, 26, 513-525. doi: 10.1901/jaba.1993.26-513
- Lee, V. L. (1999). "Behavior" does not mean "behavior of the organism": Why conceptual revision is needed in behavior analysis. *Behavior and Social Issues*, *9*, 67-80. doi:10.5210/bsi.v9i1.137
- Lehman, P. K., & Geller, E. S. (2004). Behavior analysis and environmental protection: Accomplishments and potential for more. *Behavior and Social Issues*, *13*(1), 13. doi:10.5210/bsi.v13i1.33
- Malott, R.W. (1992). Language, rule-governed behavior, and cognitivism: On Moerk's integration of Skinner's and Chomsky's approaches to language. *Behavior and Social Issues*, 2(1), 33-41. doi:10.5210/bsi.v2i1.172
- Mattaini, M. A. (1991). Substance abuse in rural Alaska: A behavior analytic exploration. *Behavior and Social Issues*, *1*(1), 3-26. doi:10.5210/bsi.v1i1.186

- Mattaini, M. A. (2001). Editorial: The science of behavior and human rights. *Behavior and Social Issues*, 11(1), 1-3. Mattaini, M. A. (2009). Editorial: The data are coming! *Behavior and Social Issues*, 18, 1-3.
- Mattaini, M. A. & Luke, M. M. (2015). *Shaping advocacy and activism for just and sustainable societies*. Poster presented at the 41st Annual Convention for the Association for Behavior Analysis International in San Antonio, TX.
- Mattaini, M. A., Luke, M. M., Grant, T. M., & Rakos, R. F. (2016). *Behaviorist for social responsibility: The matrix project*. Poster presented at the 42nd Annual Convention for the Association for the Behavior Analysis International in Chicago, IL.
- Mattaini, M. A., Rakos, R. F., & Grant, T. M. (2016). *The matrix project: An empirical strategy to potential the impact of behavioral systems science on progressive social change*. A panel presented at the 42nd Annual Convention of the Association for Behavior Analysis in Chicago, IL.
- Morrow, J. E. (1978a). A history of behaviorists for social action. *Behaviorists for Social Action Journal*, 1(1), 56-57
- Morrow, J. E. (1978b). Dear friend. Behaviorists for Social Action Journal, 1(1), n.p.
- Murrell, A. R., Rogers, L. J., & Johnson, L. (2009). From shy lamb to roaring lion: An acceptance and commitment therapy (ACT) case study. *Behavior and Social Issues*, *18*, 81-98. doi:10.5210/bsi.v18i1.2635
- Northup, J., Vollmer, T. R., & Serrett, K. (1993). Publication trends in 25 years of the *Journal of Applied Behavior Analysis*. *Journal of Applied Behavior Analysis*, 26, 527-537. doi:10.1901/jaba.1993.26-527
- Rakos, R. F. (1980). Toward cooperative behavior between pragmatic behaviorists and Marxist behaviorists: Philosophical, empirical, and social considerations. *Behaviorists for Social Action Journal*, 2(2), 10-17.
- Rakos, R. F. (1982). Editorial. Behaviorists for Social Action Journal, 3(2), 1.
- Rakos, R. F. (1983). Editor's notes. Behaviorists for Social Action Journal, 4(1), 25.
- Rakos, R. F. (1984). Call for papers. Behaviorists for Social Action Journal, 4(2), 24.
- Rumph, R., Ninness, C., McCuller, G., & Holland, J. (2007). "The shame of American education" redux. *Behavior and Social Issues*, 16(1), 27-41. doi:10.5210/bsi.v16i1.399
- Smith, G. S., Houmanfar, R., & Louis, S. J. (2011). The participatory role of verbal behavior in an elaborated account of metacontingency: From conceptualization to investigation. *Behavior and Social Issues*, 20, 122-146. doi:10.5210/bsi.v20i0.3662
- Sulzer-Azaroff, B. (1991) Accepting the challenge: A behavioral perspective on improving educational performances. *Behavior and Social Issues*, *1*(1), 27-41. doi:10.5210/bsi.v1i1.187
- Todorov, J. C. (2013). Conservation and transformation of cultural practices through contingencies and metacontingencies. *Behavior and Social Issues*, 22, 64-73. doi:10.5210/bsi.v22i0.4812
- Ulman, J. (1979). A critique of "Skinnerism: Materialsim minus the dialectic". *Behaviorists for Social Action Journal*, 1(2), 1-8.
- Weatherly, J. N., & Kehn, A. (2013). Probability discounting of legal and non-legal scenarios: Discounting varies as a function of the outcome, the recipient's race, and the discounter's sex. *Behavior and Social Issues*, 22, 74-86. doi:10.5210/bsi.v22i0.4717