

On recent attempts to rebrand “behavior analysis” as “behavior science”

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ABSTRACT

In recent years, behavior analysts have increasingly used the term *behavior science* to describe the discipline *behavior analysis*. These “rebranding” efforts have not been concentrated in any particular domain of behavior analysis and appear to be decentralized in nature. We analyze the possible reasons for using this alternative term and describe some difficulties associated with this practice, such as the already extensive use of *behavior science* to describe a family of social sciences and the widespread development that has occurred under *behavior analysis*. We conclude the commentary by proposing several variables for behavior analysts to consider before using an alternative term to describe our discipline.

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In its early decades, our discipline was referred to by a number of terms (e.g., experimental analysis of behavior, operant conditioning, behavior modification) before we settled on *behavior analysis* approximately half a century ago (Baer, Wolf, & Risley, 1968). In recent years, there have been a number of efforts by behavior analysts to rebrand *behavior analysis* as *behavior science* or *behavioral science* (we will use *behavior science* to represent both variations from this point forward). *Behavior science* has increasingly been used as a substitute for *behavior analysis* in a variety of behavior-analytic activities across geographic regions. *Behavior science* has been incorporated, instead of *behavior analysis*, into journal articles, book titles, blog entries, among others (see Table 1 for examples). With the recent name change of a behavior-analytic flagship journal from *The Behavior Analyst* to *Perspectives on Behavior Science* (PoBS; Hantula, 2018), it is likely that the new term will be further used as a substitute for *behavior analysis*. An interesting characteristic of these rebranding efforts is that they appear to be decentralized and not influenced by a single source. To our knowledge, no other major disciplines have changed their name after such a lengthy period of existence in which considerable development has occurred. Thus, the recent rebranding efforts in behavior analysis might be unprecedented in science. Because of the apparent

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This article is being included in this special section because the phenomenon we raise was addressed at the summit that served as the basis of the special section’s content. When the phenomenon was discussed, it was clear that behavior analysts from multiple countries were aware of it and shared similar concerns about it.

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Table 1. Examples of “behavior science” being used as a substitute for “behavior analysis”.

Examples	Use of <i>Behavior Science</i>	URL
Section header on Behavior Analysis Association of Michigan website	<i>Behavior Science</i> Saving Lives	baam.emich.edu/
Online article title	“Why get a degree in <i>behavioral science</i> ?”	fit.edu/your-college-decision/degree-in-behavioral-science/
Journal article title	Assessing and Preventing Serious Incidents with <i>Behavioral Science</i> : Enhancing Heinrich’s Triangle for the 21st Century (McSween & Moran, 2017)	tandfonline.com/doi/full/10.1080/01608061.2017.1340923
Blog series title	<i>Behavior Science</i> Blogs	science.abainternational.org
Organization description	“The Cambridge Center for Behavioral Studies™ is a nonprofit organization that harnesses the expertise of hundreds of <i>behavioral scientists</i> to solve problems in the home, school, community, and the workplace.”	behavior.org/our-mission/what-we-do/
Journal title	Perspectives on <i>Behavioral Science</i>	link.springer.com/journal/40614
Book title	<i>Behavioral Science</i> : Tales of Inspiration, Discovery, and Service (Holdsambeck & Pennypacker, 2017)	sloanpublishing.com/behavioral_science

increasing frequency of these efforts and their decentralized nature, it seems prudent to evaluate this phenomenon given the implications for the discipline as a whole.

The decentralized nature of the rebranding efforts makes it difficult to confidently ascertain the motivation to change, but we can offer some speculation. First, and perhaps most relevant, are the opportunities (e.g., policy initiatives, funding, jobs) available to scientists who use data-based approaches for studying human behavior; these scientists are often called behavior scientists outside of behavior analysis. Behavior analysts are undoubtedly experts in an objective and measurable approach to studying human behavior, so it is not surprising that behavior analysts have recognized this as a dissemination opportunity. Second, some behavior analysts might believe *analysis* has negative connotations or would prefer to focus instead on the scientific aspect of behavior analysis; using this logic, *behavior science* would then be a better name for the discipline. Finally, some behavior analysts believe that *behavior analysis* has been too heavily associated with application, particularly in the behavioral treatment of autism spectrum disorder. In the inaugural editorial of the first issue of *PoBS*, Hantula (2018) stated that “the terms ‘behavior analysis’ and ‘behavior science’ should be differentiated in *PoBS* articles. Consistent with contemporary usage, [*sic*] is preferred that that [*sic*] ‘behavior analysis’ is used when referring to the application or practice and ‘behavior science’ is used when referring to the theory or science.” It is worth noting that this is the first time we have encountered this unique category distinction and that it is inconsistent with a number of entities in the discipline that are not solely applied in their focus who have behavior analysis in their names (e.g., Association for Behavior Analysis International, Society for the Advancement of Behavior Analysis, American Psychological Association [APA] Division 25: Behavior Analysis). This unique distinction also differs from conventional definitions of *behavior analysis* as encompassing philosophical, basic, applied, and service-delivery domains (e.g., Cooper, Heron, & Heward, 2007; Madden, 2013; Moore, 2008).

Given the numerous efforts to rebrand *behavior analysis* as *behavior science*, and the fact that *behavior analysis* is still a very widely used term, it seems prudent to evaluate *behavior science* as a suitable substitute before additional rebranding occurs. The Merriam-Webster dictionary defines *behavior science*, as “a branch of science (such as psychology, sociology, or anthropology) that deals primarily with human action and often seeks to generalize about human behavior in society” (Behavioral science, n.d.). In other words, *behavior science* has an existing meaning as an omnibus descriptor for a family of sciences and has been extensively used in this way for decades. Thus, changing *behavior analysis* to *behavior science* is analogous to changing the names of the *sociology* or *anthropology* disciplines to *behavior science*, given the omnibus nature of *behavior science*. In addition, when searching for *behavior science* online, the majority of websites, articles, and books that are found are not behavior-analytic in nature, but rather describe research and applications from a range of disciplines from cognitive psychology to political science (see Table 2, for examples, of *behavior science* already being used to refer to other disciplines). It would be accurate to refer to *behavior analysis* as one of the *behavior sciences* (i.e., a member of a broader category). However, selecting *behavior science*¹ as a replacement for *behavior analysis*, which has a defined philosophy, methodology, science, and technology could be quite confusing to the public, the research community, and policymakers, and possibly result in the dilution of our discipline’s unique features.

A consideration in the rebranding of *behavior analysis* as *behavior science* is the amount of change necessary to complete the transition, assuming a permanent one is sought by those using *behavior science*. Over the last several decades, there has been widespread adoption and development of professional infrastructure using the terms *behavior analysis*, *applied behavior analysis*, and *behavior analyst*. For example, *behavior analysis* is embedded in journal titles (e.g., *Journal of Applied Behavior Analysis*, *European Journal of Behavior Analysis*, *Behavior Analysis: Research and Practice*, *Behavior Analysis in Practice*), book titles (e.g., *Behavior Analysis and Learning*; *APA Handbook of Behavior Analysis*), professional association names (e.g., Association for **Behavior Analysis** International, European Association for **Behaviour Analysis**, APA Division 25: **Behavior Analysis**, California Association for **Behavior Analysis**), university program names (e.g., University of Florida **Behavior Analysis** Program, West Virginia University **Behavior Analysis** Program), professional credentials (e.g., Licensed **Behavior Analyst**, Board Certified **Behavior Analyst**[®]), and state laws (e.g., National Conference of State Legislatures, n.d.). A comprehensive rebranding initiative would require substantial changes in the existing infrastructure of behavior analysis.

Given the potential confusion associated with referring to our discipline as *behavior science* (given its existing, broad meaning) and the effort associated with a comprehensive rebranding initiative, it is worth considering whether there is evidence indicating that a change is warranted and would solve any potential problems associated with *behavior analysis*. As noted earlier, one reason for the change might be to take advantage of a term that is already popular outside of behavior analysis and, at least topographically, accurately describes some of our work. Depending on the audience and situation, there is definitely value for behavior analysts to *temporarily* modify their language accordingly for more effective communication (e.g., Bailey, 1991; Foxx, 1996; Lindsley, 1991). For instance, it

Table 2. Examples of non-behavior-analytic uses of “behavior science”.

Examples	Use of <i>Behavior Science</i>	URL
Online magazine Description of “behavioral science degree”	<i>Behavioral Scientist</i> “Many people who major in <i>behavioral science</i> go on to acquire social work positions or to become counselors. However, the business world is now also seeking behavioral science majors to help them find ways to beat the competition.”	behavioralscientist.org/ericae.net/published/behavioral-science-degree.htm
Wikipedia definition of “behavioural sciences”	“ <i>Behavioural sciences</i> explore the cognitive processes within organisms and the behavioural interactions between organisms in the natural world. It involves the systematic analysis and investigation of human and animal behavior through the study of the past, controlled and naturalistic observation of the present, and disciplined scientific experimentation. It attempts to accomplish legitimate, objective conclusions through rigorous formulations and observation. Examples of <i>behavioral sciences</i> include psychology, psychobiology, anthropology, and cognitive science.”	en.wikipedia.org/wiki/Behavioural_sciences
Encyclopedia Britannica definition of “behavioral science”	“ <i>Behavioral science</i> , any of various disciplines dealing with the subject of human actions, usually including the fields of sociology, social and cultural anthropology, psychology, and behavioral aspects of biology, economics, geography, law, psychiatry, and political science.”	britannica.com/science/behavioral-science
Book description	“By design, the scope of <i>Behavioral Science & Policy</i> is broad, with topics spanning health care, financial decision-making, energy and the environment, education and culture, justice and ethics, and work place practices. Contributions will be made by researchers with expertise in psychology, sociology, law, behavioral economics, organization science, decision science, and marketing.”	brookings.edu/book/behavioral-science-policy-volume-3-no-1/
Journal title	Current Opinion in <i>Behavioral Sciences</i>	journals.elsevier.com/current-opinion-in-behavioral-sciences
Journal title	<i>American Behavioral Scientist</i>	journals.sagepub.com/home/abs
Journal title	<i>Behavioral Sciences</i>	mdpi.com/journal/behavsci
Journal title	Canadian Journal of <i>Behavioural Science</i>	apa.org/pubs/journals/cbs/
Book title	Research Methods for the <i>Behavioral Sciences</i> (Gravetter & Forzano, 2018)	cengage.com/c/research-methods-for-the-behavioral-sciences-6e-gravetter
Organization	Federation of Associations in <i>Behavioral</i> and Brain <i>Sciences</i>	fabbs.org/
Organization	<i>Behavioral Science</i> and Policy Association	behavioralpolicy.org
University department description	“The <i>Behavioral Science</i> Department houses the academic disciplines of Anthropology, Criminal Justice, Education, Psychology, Social Work, and Sociology.”	ucblueash.edu/academics/departments/behavioral.html
University program name	Department of Psychology <i>Behavioral Science</i> Program	psychology.unt.edu/graduate-programs/behavioral-science

might be beneficial for behavior analysts to generically refer to themselves as *behavior scientists* in discussions with non-behavior analysts. It also might be appropriate to apply for jobs or funding where there is clearly an interest in a data-based approach to behavior. Additionally, behavior analysts might apply for a grant whose aims are focused on using a behavior scientific approach to decrease obesity while still making a clear distinction that the type of behavior science will be used is behavior-analytic. However, caution should be used when a term with other meanings is used to describe behavior analysis because the

other meanings (e.g., philosophical assumptions, methodologies, technologies) could be misattributed and overgeneralized to behavior analysis.

As mentioned earlier, some behavior analysts might be using *behavior science* to remove *analysis*. Before making the change, it is worth considering whether the term is causing problems and, if so, what those problems might be. Interestingly, *analysis* has been evaluated, along with other common behavior-analytic terms in two recent studies (Critchfield, Becirevic, & Reed, 2017; Critchfield et al., 2017). In both studies, *analysis* was rated as neutral by lay audiences (i.e., on a 9-point rating scale from “happy” to “unhappy” and on a 9-point rating scale from “calming” to “exciting”). Thus, if there is still concern that *analysis* is problematic, the term should be further evaluated. The research on the social validity of behavior-analytic terms provides a potential methodology for such evaluation (Critchfield et al.; Critchfield, Becirevic, & Reed).

In conclusion, there exist widespread and decentralized efforts to replace *behavior analysis* with *behavior science*. Given the pervasive implications of these efforts and the need to have a precise term with which to refer to our discipline, we offer the following guidance (a) to behavior analysts who are using or considering alternative terminology and (b) to behavior analysts in training who should be aware of this current terminological phenomenon. First, consider whether the putative replacement term already has an existing meaning. If so, evaluate how widely the term is used and whether its existing meaning could be confusing to relevant audiences. Second, determine whether the alternative term is going to be used temporarily or permanently. For instance, delivering a presentation at a conference using *behavior science* will likely have minimal long-term effects while changing aspects of our infrastructure will have more lasting effects. Finally, consider whether any difficulties associated with the dissemination of behavior analysis are related to the language we use to describe our work or whether the problems lie in the uniqueness of our behavior-change approaches and the nature of our collaboration (Foxy, 1996). If the latter variables are implicated as barriers to dissemination, consider addressing these before altering the name of our discipline.

Note

1. We should add here that it might be that behavior analysts are specifically using *behavior science* rather than *behavioral science* because of the existing and broad meanings of the latter term. However, we suspect that such a minor distinction will do little to prevent confusion. To illustrate, think about how often you have had to correct others when they used *behavioral analysis* instead of *behavior analysis* to describe our discipline.

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References

- Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis, 1*, 91–97.
- Bailey, J. S. (1991). Marketing behavior analysis requires different talk. *Journal of Applied Behavior Analysis, 24*, 445–448.
- Behavioral science. (n.d.). *Merriam-Webster's online dictionary*. Retrieved from <https://www.merriam-webster.com/dictionary/behavioral%20science>.
- Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). *Applied behavior analysis* (2nd ed.). Columbus, OH: Pearson.
- Critchfield, T. S., Becirevic, A., & Reed, D. D. (2017). On the social validity of behavior-analytic communication: A call for research and description of one method. *The Analysis of Verbal Behavior, 33*, 1–23.
- Critchfield, T. S., Doepke, K. J., Epting, L. K., Becirevic, A., Reed, D. D., Fienup, D. M., ... Ecott, C. L. (2017). Normative emotional responses to behavior analysis jargon or how not to use words to win friends and influence people. *Behavior Analysis in Practice, 10*, 97–2016.
- Fox, R. M. (1996). Translating the covenant: The behavior analyst as ambassador and translator. *The Behavior Analyst, 19*, 147–161.
- Gravetter, F. J., & Forzano, L. B. (2018). *Research methods for the behavioral sciences* (6th ed.). Belmont, CA: Wadsworth Cengage Learning.
- Hantula, D. A. (2018). Behavior science emerges. *Perspectives on Behavior Science, 41*, 1–6.
- Holdsambeck, R. D., & Pennypacker, H. S. (Eds.). (2017). *Behavioral science: Tales of inspiration, discovery, and service* (Omnibus ed.). Littleton, MA: Cambridge Center for Behavioral Studies.
- Lindsley, O. R. (1991). From technical jargon to plain English for application. *Journal of Applied Behavior Analysis, 24*, 449–458.
- Madden, G. J. (Ed.). (2013). *APA handbook of behavior analysis: Volumes 1 & 2*. Washington, DC: American Psychological Association.
- McSween, T., & Moran, D. J. (2017). Assessing and preventing serious incidents with behavioral science: Enhancing Heinrich's triangle for the 21st century. *Journal of Organizational Behavior Management, 37*, 283–300.
- Moore, J. (2008). *Conceptual foundations of radical behaviorism*. New York: Sloan Publishing.
- National Conference of State Legislatures. (n.d.). *Autism and insurance coverage: State laws*. Retrieved from <http://www.ncsl.org/research/health/autism-and-insurance-coverage-state-laws.aspx>