PROLIFERATION, PRODUCTIVITY, AND PROPAGATION: CELEBRATING THE NEXT WAVE OF EAHB RESEARCHERS

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The experimental analysis of human behavior (EAHB) is alive and well. Historically, authors have raised concerns over the growth and sustainability of laboratory research on operant and respondent behavior using humans as participants (for a review and commentary, see Hyten & Reilly, 1992). Fortunately, more recent reviews show a proliferation of activity through continued investment in research efforts by scientific workers and in available space to publish within journals (e.g., Zimmerman et al., 2015). Further, a simple look at the recent increase in publication output within the *EAHB Bulletin* helps back these claims.

But it is not enough to simply do more. EAHB work must also be productive; it should not merely demonstrate principles from the non-human animal lab. As Hayes and Brownstein (1984) argued, productive EAHB work requires the experimental analysis of behavior-environment interactions that are—arguably—unique to humans (e.g., verbal behavior). Even when the area of study is not unique to humans, it is, perhaps, more complicated given unaccountable differentiated histories, requiring further respect for the human condition and its role in these analyses.

For the proliferation of productive EAHB work to continue, the field must propagate new generations of workers and thinkers. Indeed, as Marr (2018) wrote, concerning the experimental analysis of behavior in general, "… to survive—and thrive—new students must be trained, graduated, and become productive researchers and teachers who will inspire the next generation" (p. 393). However, new workers and thinkers inevitably lead to variability. This is a good thing, and to claim otherwise would be to stand at odds with the essence of basic behavioral principles and, thus, radical behaviorism: selection.

This special issue celebrates early career scientists who will carry on the tradition of productive research in EAHB and shape its future. Here, we welcome variability in topic, approach, and publication style. Each paper exemplifies the high-quality, creative work being conducted by the newest generation of EAHB researchers, with several showcasing creative approaches to experimentation, conceptualization, and dissemination.

TRANSLATIONAL WORK

We open the issue with a series of translational pieces that help bridge the basic-to-applied literature. Mohammed et al. extended recent work around humans' curiously reduced sensitivity to extinction conditions in brief, laboratory preparations. Their hypothesis was that, perhaps, past research has used reinforcement schedules sufficiently thin that persistence during extinction occurs via well-known inverse relations between the rate of reinforcer delivery and response persistence. Thus, perhaps, making the schedules more discriminable may lead to response patterns more similar to the non-human laboratory research literature. Readers should read the article to get to the main punchline. But, much work remains to be explored on this topic.

In the second translational article, Randall and colleagues uniquely approach a concurrent schedules arrangement common to therapeutic settings. Specifically, Randall et al. simulated the effects of manipulating reinforcer quality on response allocation when using differential reinforcement without extinction (e.g., Vollmer, et al., 2020), also termed differentiated reinforcement (van Haaren, 2017). Their unique take was to manipulate reinforcement parameters for the target response as opposed to the alternative response like most past researchers. Responding toward the higher quality reinforcer was consistent for two of the five participants, with the others showing variability in their response patterns. Regardless

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of the results, the preparation sets the occasion for well-controlled follow-up work on a topic of significant importance.

Carrying on the translational work, Williams et al. compare full instructional sets to a set-size expansion approach in concept formation. In non-human studies, gradually building a large set over time successfully develops abstract concepts. However, this approach to concept formation has not been studied in humans. Williams et al. sought to determine what advantages, if any, set size expansion holds over presenting the full instructional set in human concept formation.

TOOL DEVELOPMENT

Scientists use many tools. Computer programs enjoy a rich decades-long history as a tool for experimental behavior work with novel programs allowing researchers to ask and answer novel questions and explore new behavior-environment relations. Regaço et al. carry on this tradition by showcasing a computer program likely to drive forward research in equivalence class formation. In this creative gamified work, the main character, Miner, must work his way out of a maze-like tomb by selecting doors. In a delayed match-to-sample arrangement, Miner starts with a single door containing a symbol (the sample stimulus), which, when opened, leads to a corridor ending in a room with three doors, each with their own symbol (comparison stimulus). Selecting the correct comparison symbol results in a reward and access to the next sample stimulus, thus repeating the process until Miner exits the tomb. Keeping participants engaged for long stretches of time is a common challenge faced by many EAHB researchers. The work by Regaço and colleagues provides one possible antidote.

CONCEPTUAL AND TECHNOLOGICAL WORK

In the last section, the papers challenge current assumptions and methodologies popular in the field write large. Craig et al. presents a symposium of sorts to dig into our current understanding of relapse while attending to the idiosyncratic differences in preparation, measurement, and analysis between research labs. The article by Craig et al. is reminiscent of the 1988 special section in *The Behavior Analyst* (now *Perspectives on Behavior Science*) on lab lore (see Buskist & Johnston, 1988). Lab lore, generally speaking, is a collection of laboratory-specific practices that might account for differences in findings between different labs. Topics in the 1988 special section covered participant selection, session characteristics, instructions, reinforcer selection and arrangement, and interpretation of verbal reports. Craig et al. address most of these topics and relative to the topic of resurgence. The lessons learned from this article should be valuable to anyone getting started in resurgence as well as those currently conducting this work. Indeed, this format and depth of analysis is something that should be explored across more topics in behavior analysis with *EAHB Bulletin* being a welcome outlet.

Next, Simon challenges readers to consider what other units of analysis exist in studying verbal behavior, particularly with complex verbal interaction. In this paper, Simon orients readers to the methodological challenges in expanding our units of analysis, such as developing new terms or operationalizing common terms. Current areas of investigation aide in future work (e.g., interlocking behavioral contingencies, metacontingencies), setting the stage for an expanded verbal analysis that will improve on the external validity of this work.

To round out this section and the special issue as a whole, Falligant et al. take us on a deep dive of temporal dynamics and extinction-induced behavior. Specifically, they consider how interresponse times could be an informative metric to study transition states, shedding light on behavioral variation and sensitivity to change. Whether the methods and analytic approaches are picked up by future researchers, obviously, remains to be seen. Regardless of the specifics, researchers can likely do more with the rich datasets they collect is a message we hope all readers hear loudly.

IN SUM

Science is a culture and, therefore, subject to cultural selection. Selection cannot occur without variation. This special issue is an example of early career scientists engaging in variable responding, and we celebrate them.

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