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NOTE: Prior to Volume 16, Number 1 (Spring 2013) the *Journal of Behaviorology* went by the name of *Behaviorology Today*, which occasionally published fully peer-reviewed articles, explicitly so labeled. Beginning with Volume 15, Number 1, in January 2012, *all* material receives full peer review. See the *Submission Guidelines* for details.

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\* This issue does not contain any new or updated TIBI course syllabi. New syllabi, or updates of previous syllabi, may appear in future issues. (See the *Syllabus Directory* for details.)

Volume 25, Number 2

## Editorial Bruce Hamm

This issue of the *Journal of Behaviorology* features the start of an ongoing *Special Section* on "Twenty-first century natural-science views on sustainable community possibilities inspired by *Walden Two.*" The *Special Section's* status as "ongoing" stems from the value to society of continuing this science and engineering topic, because the global problems that prompted it are also ongoing.

In addition to the articles in this issue, and the extensive literature that grounds them, another related resource is the book, *A World of Our Own Making (Expanded) A Sequel to Walden Two* (Shuler, M. 2021. Los Alamos, NM: ABCs; available through www.lulu. com). We encourage you to contribute to the discussion through your own manuscript (see the *Submission Guidelines* on page 8 of this issue).

This issue begins with a reprint of Stephen Ledoux's 1985 paper, "Designing a new Walden Two-inspired community." The work is presented here to provide an example of a published twentieth-century perspective on sustainable communities inspired by Walden Two. As Ledoux (2022) notes, this is not the paper he would write today. It nonetheless probes relevant questions such as, "Do extant Walden Two-inspired communities look as good in real life as they do on paper? ... Why don't they attract more folks?" (Ledoux, 1985, p. 28). Based on the perspectives of members of actually existing communities, Ledoux concludes that future community builders could learn much from the missteps of communities such as Twin Oaks. Briefly, those missteps involved placing too much emphasis on the goal of membership expansion rather than on existing members' quality of life. As a result, Walden Two-inspired projects largely failed to serve as, nor were truly worthy of the title, "model communities."

If the crux of Ledoux's 1985 advice is something along the lines of "build it not only so they can come and see, but so that they will want to stay," the next paper by Tom Critchfield and Ronnie Detrich (2022) argues that communities such as those discussed by Ledoux (1985) did not, and for reasons beyond their control could not, have expected to expand or thrive. Specifically, the authors contend that even today behaviorology and related sciences lack the know-how to build attractive and viable *Walden Two*-inspired communities. Accordingly, Critchfield and Detrich propose that scientists involved with the building of sustainable communities must focus on developing new processes of contingency engineering while adopting practices from fields that have already grappled with the complexities of group dynamics and social behavior.

While some of the needed and relevant technologies and practices advocated by Critchfield and Detrich may prove controversial for some self-identified behaviorologists-e.g., "dynamical systems and the methods by which they are studied" (p. 15)-in his Response to Critchfield and Detrich (the issue's final paper), Ledoux (2022) agrees with their general viewpoint that science is not where it needs to be if we are to meet the ecological and cultural challenges the world presently faces. Ledoux additionally agrees that the natural science of behavior alone will not be able to solve the complex challenges we face; rather, it will need to join forces with other natural sciences. Such a joining should be relatively easier and apt to bear fruit more readily, however, for those behavioral disciplines that have consistently operated within a natural-science framework than for those that have not.

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## Special Section: Twenty–First Century Natural– Science Views on Sustainable Community Possibilities Inspired by Walden Two

The following papers constitute a *Special Section* on "Twenty-first century natural-science views on sustainable community possibilities inspired by *Walden Two*." This *Special Section* contains peer-commentaries that the first paper evoked, at least in part, perhaps along with the 2021 sequel to *Walden Two* (i.e., Shuler, M. *A World of Our Own Making (Expanded) A Sequel to Walden Two*. Los Alamos, NM: ABCs). The first paper appeared in 1985 in *Communities: Journal of Cooperation (66*, 28–32, 84).

The worldwide increasing concerns for sustainable living prompted the *Special Section*, especially given the potential contributions that natural scientists of behavior, like BCBAS, can make regarding the human behaviors that cause global problems and the changes in human behavior needed to solve these problems. With more answers needed, some for questions that no one has yet asked, *Journal of Behaviorology* will keep this *Special Section* open for future issues, so readers should share this copy and keep their submissions coming (see the Submission Guidelines elsewhere in this issue).

We begin the *Special Section* with the 1985 paper that initially served to evoke the others, "Designing a new *Walden Two*-inspired community":

## Designing a New Walden Two–Inspired Community Stephen Ledoux\*

[Affiliation when written: SUNY-Canton]

*Abstract:* [This essay provides a few possible early answers (i.e., from the early 1980s) to questions raised by the difficult experiences some *Walden Two*-inspired communities have had getting and retaining members and building their communities.] *"The life we lead displeases us, but no day is bad enough to induce us to act. We are whirling toward our doom, but we keep on patching up our way of life and avoiding the drastic change which alone can save us. Walden Two was a proposal to make a big change rather than take small remedial steps here and there, but the problems it would raise are so big that we go right on doing nothing" (Skinner, 1983). These were the sentiments of <i>Walden Two*'s author in 1969. Around the same time, a number of small groups of people were beginning to take on some of those big problems. They were founding experimental, sometimes called intentional, communities inspired by *Walden Two*. One of the best documented of these is Twin Oaks Community near Louisa, Virginia (Kinkade, 1973). The struggles of Twin Oaks, along with those of Dandelion Community near Kingston in Ontario, Canada, and a number of other members of the Federation of Egalitarian Communities, provide the backdrop for the present article.

Do extant *Walden Two*-inspired communities look as good in real life as they do on paper? What do they look like in real life? Why don't they attract more folks? Whom do they attract? What are their problems? Their solutions? Are there criteria upon which potential solutions can be evaluated in a predictive sense, rather than just pragmatically trying them?

These are the questions we will seek to answer. The result will *not* be a new set of bylaws for a community, or solutions to taxation problems, or a new behavior code, or details of some supposedly optimal physical design. Such things would be merely academic exercises unless undertaken, in light of local conditions, as part of actually starting a community. Instead, the emphasis

<sup>\*[</sup>Material added to the original 1985 article, beyond typo fixes, appears in brackets like these.] Address correspondence regarding this paper to the author at 26 Timber Ridge Road, Los Alamos, NM 87544.

*Key words:* Experimental communities, sustainable communities, intentional communities, community design, cultural practices, education, natural science of behavior, behavior analysis, behaviorology.

here will be on the starting point, foundation, or working principles that can put current communities' problems into perspective and show the way toward new solutions.

First, however, a review of the pertinent parameters of the existing communities will be helpful. The existing communities began as people sought ways to improve scientifically on their living situation. *Walden Two* itself provided the starting point. But no one had actually applied the science of behavior to a real society, regardless of size. So the early community builders were true explorers on a quite new frontier, that of cultural redesign. They very literally had to start from scratch, beginning by changing the most disadvantageous and aversive cultural practices with which they were burdened. Arrangements regarding housing, labor, finances, and ownership were among the first practices they addressed.

The members of these early communities wanted to "make the world better." But the contingencies under which they lived were more conducive to "escaping the world" (Skinner, 1983, p. 10). For example, their location was often quite removed from current population centers; they were "getting away from it all." Certainly, there are some advantages to a remote location, not the least of which is greater control of the behavior of everyday living. But the questions of long–range goals, and of whether contingencies, such as remote location, help or hinder attaining those goals, remain unanswered.

This is certainly not to blame early community members, as they had no one else's scientific experience to benefit from. But today, designers of new communities can and must take into account the experience of these early communities.

By their actions, members of these early communities have shown that they were not as successful in dealing with their problems as they had hoped. The biggest indicator of this has been the turnover problem, that many members leave after four or five years, taking, of course, all their first—hand experience with them. They had been willing to pioneer, putting up with the apparently necessary low standard of living, cramped quarters, outhouses, etc. But over the years, there was little improvement in their environment or their ability to effect change, at least not enough to maintain their presence.

When there was the opportunity for improvement in these areas, it was often ignored by the many newer members who were still interested in pioneering and expansion, rather than consolidation. But again, the problems of day-to-day living made it difficult to estimate whether or not such things as expansion were actually consistent with goals. However, enough experience has now been accumulated to compare actions with goals, and suggest necessary changes.

The stated purpose of Twin Oaks is representative of the goals of these early *Walden Two*-inspired

communities. The opening statement is: "Together our aim is to perpetuate and expand a society based on cooperation, sharing, and equality ..." followed by seven substantial modifying clauses (Komar, 1983, p. 335). One difficulty is that perpetuation and expansion are sometimes at odds with each other, depending on how expansion is interpreted. They are at odds most often when expansion is taken as meaning "increased membership" as opposed to meaning simply "increased numbers of people employing improved cultural practices." Seldom has this discrepancy been overtly recognized, nor have criteria yet been developed that can help evaluate which of these meanings is actually part of the goal, and which is not, when they are at odds. This we will try to change.

In terms of the problems that have had the most impact on the survival of current communities turnover, pioneering, and governmental form—these questions of goals may be viewed as a quantity versus quality issue. Though these are not always at odds, communities have not found a way to deal with them when they are. On what basis can they decide when it is better to consolidate, to improve the quality of life for the present members? Or, when is it better to expand, to increase the size of the community (as expansion has usually been interpreted)?

Of course, that is oversimplified. One could argue that expansion serves consolidation; the more members you have, the more goods and services the community can provide its members, which is conducive to perpetuation. On the other hand, one could argue that consolidation serves expansion; the better the quality of living, the greater number of new members who might be attracted to the community.

Both arguments have been made, but the key rests not with the logic of the arguments, but with the effects each has on the members' behavior when implemented. These effects in the past provide the clue to deciding such issues in the future.

Historically, expansion has won out over consolidation, but the price has been high: the loss of old, experienced members, even as the communities appear to grow. There always seem to be more new members joining than old members leaving, but new members are inexperienced, and the old members who could give them experience are gone. The new members want to go on pioneering and expanding, and do so, as they usually comprise a majority of the membership, while older members have been through all that. When things don't change, they leave. In a sense, then, expansion has become the *de facto* goal even though it is neither the sole stated goal, nor a realistic goal, as total membership statistics would indicate (i.e., overall growth has been relatively small). In reality, it seems that "bettering the world" has given way to "a few more people escaping from it" (Graham, 1983a).

It is time, then, to create a different goal that provides a criterion upon which to decide future issues. This goal is to be viewed more as a guide than a goal, enabling it to serve as a variable shaping decision—making behavior and producing more successful communities. This new goal, or guide, is that "the community be a surviving example of improved cultural practices to the larger culture."

Walden Two-inspired communities actually are part of a larger culture and so must evolve improved cultural practices not seen as threatening to either the current culture or some future culture. These improved practices must be visible as such, showing benefits that appear laudable to the larger culture. These improved practices, both non-threatening and highly visible, would contribute to fulfilling the goal that helps shape these very practices. Hence, the goal is itself the criterion by which new practices can be selected. This guide, with its implications about current community practices, can be applied to shaping other practices.

Certainly the continual loss of experienced members is hard on a community. Why does it happen? One community member put it this way:

> The old members look not at what the situation is right now, but at what they believe it is becoming. They look at trends. This is the meaning of the oftheard, "I get so tired of dealing with the same issues over and over, every time we get a new bunch of people." The fatigue is not simply boredom; it is the feeling that there will never be any progress on the issues under discussion. No sooner does one group begin to understand why things must be a certain way than there is another new group making the same old demands, impeding the progress along certain vital (to the old-timer) lines with arguments that the old members can remember having already presumably defeated. The old member looks to see if things are likely to change for the better within the reasonably foreseeable future" (Kinkade, 1982, p. 4).

If things are unlikely to change, if the older members are unlikely to effect change, especially due to the community's governmental practices, then they leave. Under the new guide, however, the governmental practices would be seen as detrimental to the community. While it may be most difficult for some old communities to change their practices, new communities should begin designing their practices by taking the guide into account. Different communities have suggested improved practices that might encourage members to stay. These suggestions (Graham, 1983b) are neither inclusive nor seen to be of equal quality, and would be, as ever, subject to local conditions:

\* Make room quality contingent on seniority;

✤ Provide a free summer's expense paid trip (up to a set maximum) for every five years of membership;

Allow members to spend four months of their fourth year (and every alternate year thereafter) free of the labor credit system, doing their quota in whatever creative and valuable style they choose;

✤ Allow selection from a menu of such rewards, contingent on membership duration.

A final suggestion of special relevance to the governmental practices responsible for the loss of fiveyear folks is that governmental power be slanted in favor of equality over time as in, for instance, one vote for every year of membership.

The importance of the turnover problem, as well as these suggestions that can be evaluated by the new guide, and the relevance of the new guide as a goal, should not be underestimated. As one continuing veteran of Twin Oaks put it, "My experience is that the turnover of the five-year people is our most serious problem, the most serious evidence that we might not have any solutions worth telling the world about" (Graham, 1983b).

Another problem, that of expansion, is best considered in terms of whether it helps the community toward the goal, rather than as a goal itself. Expansion, when it conflicts with consolidation, contributes to the turnover problem, which consolidation usually mitigates. To that extent, application of the guide already puts expansion in an unfavorable light. But we must take into account that these communities exist in the midst of a wider culture.

For any larger benefit to derive from the existence of *Walden Two*-inspired communities, the improved practices that they experiment with must impact on the wider culture. If this does not happen, the wider culture may fear and threaten the communities, and/or may just continue to plod along, probably on its way to oblivion, dragging the experimental communities with it.

Mainstream members of the wider culture are not largely exposed to, or not attracted to, the improved practices of the new communities. Worse, due to how they see the communities, if attracted to the improved practices, they are hesitant to adopt them. Still, if the communities and their science do have "solutions worth telling the world about," then members of the wider culture must be attracted somehow. Communities must gear their own design so the outsiders *are* attracted, if not by the communities themselves, then at least to their improved cultural practices, giving the larger culture a chance to change, enhancing its chances for survival.

What can be done to design (or redesign) a community so that it and its practices are attractive to mainstream members of the current culture? Just having that goal as a guide may be a significant first step. Some of the many single or interacting parameters that may also be helpful, according to the guide, are the following:

For starters, the community must somehow be visible. This is much more difficult if its location is off in the hills. Visibility is enhanced if it is closer to the local population center. Or the community might locate within the population center itself, although the price for visibility may then be quite high (e.g., zoning, reduced access to the variables needed for shaping new practices, etc.).

A more powerful parameter in attracting the wider culture to community concerns pioneering. The lower the apparent standard of living of the community, the harder it will be for the larger culture to view any practices as being improved. For example, improved child-rearing practices will not easily be seen as such in a community with inadequate toilet, laundry, cooking facilities, etc.

Finances bear heavily on the extent to which a community must pioneer. What is the source of the community's income? Traditionally, finances have been based on farming and/or cottage industries, which will not greatly heighten the attractiveness of the community or its practices to mainstream working members of the wider culture who have often worked hard to develop useful skills to "pay their rent." Giving up the use of these skills is just not attractive, no matter how improved the new practices are. We may combat this situation by basing finances on the skills community members already have. If the community is in or near the population center, its members can work at the jobs they are familiar with and trained for, especially if these are jobs that they do not consider *work* [with their pay checks supporting the community]. This would further enhance visibility as the members of the community would still be, in a very real sense, members of the larger culture. Information about improved cultural practices would be more widely disseminated.

Additionally, wider dissemination of information would attract more and more people, perhaps to the community, but more importantly to the improved practices. If people were attracted to the community under such circumstances, expansion would be supported by the guide. Though many people will not be ready to join a community, they may be ready to adopt some of the improved practices, such as using an aircrib in raising their children or at least not resisting others' adopting them [i.e., aircribs; see Skinner, 1987, in Ledoux & Cheney, 1987 (a free download from the free access website, www.behaviorology.org); also in Ledoux, 2014, pp. 529–531, and in Ledoux, 2017, pp. 395–398]. Indeed, some may organize new communities to fit their groups' conditions on a smaller or larger scale. They may simply combine households in one big house to avoid the duplication of appliances that is so obvious on any typical suburban lane (i.e., stoves, washers and dryers, refrigerators, TVs, stereos, autos, etc.). Or they may go all out, designing a community from scratch, using *Walden Two*–inspired behavior code, bylaws, and even articles of incorporation, with an architect–design physical plant, perhaps being a tax–exempt, non–profit educational corporation whose program is specifically to teach others how to redesign cultural practices.

Some ways a community might teach others are guest lectures at service clubs and college classes, on-site workshops and conferences, convention presentations, and shaping appropriate behavior repertoires in college-student boarders who want more community experience than that available from just reading *Walden Two.* Sunflower House in Lawrence, Kansas, has been doing something like this for over 15 years (Miller, 1984). The students might be in a Resident Apprentice Cultural Practice Improvers Program and go on to start new communities, or at least help others be open to improved practices.

These parameters are only some of the many about which a community, or a potential community, must make design decisions. Others will come to light in the process of community building. Most will be dealt with while researching legal forms, tax laws, zoning laws, etc., and while compiling necessary documents such as bylaws, behavior code, and even articles of incorporation. (Indeed, such documents from other communities provide a wealth of both positive and negative examples and should not be ignored.)

In summary, a new type of *Walden Two*-inspired experimental community that strives to be a surviving, good example—of worthy changes in defective cultural practices—to our culture might best be located in or near a population center. The community's members could work at their regular jobs. With the resulting greater financial base, they could enjoy a reasonable, non-pioneering standard of living conducive to both remaining a member and to designing and following improved cultural practices. These improved practices would not only involve less duplication of resources but they would also, and more importantly, combine with the community's overall visibility, allowing members of the larger community to see the best of, and be attracted to, the improved practices.

In conclusion, "to be a surviving example of improved cultural practices to the wider culture" is the foundation

of a new type of *Walden Two*-inspired experimental community, communities that not only offer "solutions worth telling the world about," but that also will impact on the larger culture, attracting its mainstream members to the improved cultural practices and the natural science upon which their design is based. In this way, improved cultural practices may be adopted by an increasing proportion of the larger culture, enhancing its, and the community's, chances for survival.

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- [See the BOOKS page at www.behaviorology.org which does not sell books—for a full description and current sources for many relevant books. Also see the JOURNAL page at this website for free access to articles—all fully peer reviewed since 2012—in *Behaviorology Today* and *Journal of Behaviorology*.] © 3

## Submission Guidelines

Journal of Behaviorology (previously known as Behaviorology Today) is the fully peer-reviewed Journal of TIBI (*The International Behaviorology Institute*) and is published in the spring and fall of each year.

*To submit items*, contact the Editor: Bruce Hamm, M.A., MLBC, BCBA Editor, *Journal of Behaviorology* 2171 Wellington Crescent Richmond BC V7B 1G9 CANADA E-mail: brucehamm@me.com

#### **Considerations**

The Journal entertains experimental or applied research papers and theoretical or conceptual or literature review articles (all of which will have at least three reviewers) as well as Book Reviews, On Terms, In Response, and program descriptions (two reviewers) plus letters, memorials, etc. The members of the TIBI Board of Directors constitute the basic Editorial Review Board (ERB) on which others can serve as members or guests. Authors will not be identified to reviewers and reviewers will not be identified to authors, except when they opt to sign their reviews. (Some reviewers prefer to sign, usually in acknowledgement of the additional assistance that they are prepared to offer the author.) Each reviewer will provide constructive feedback as well as a recommendation: accept, or accept with revisions, or revise and resubmit, or reject.

Based on the set of reviewer recommendations and comments, the Editor will convey the feedback and summary decision to the author(s). With assistance from members of the ERB, the Editor will also provide authors with guidance to shape the best manuscripts possible in a reasonable time frame.

All accepted pieces must contribute to the behaviorology discipline (e.g., by relating to or clarifying or expanding some aspect of the discipline such as the philosophical, conceptual, theoretical, experimental, applied, or interdisciplinary aspects). Accepted pieces must also be crafted in ways that convey as much consistency as possible with the principles, concepts, practices, philosophy, and terminology of the discipline.

Research paper authors (a) must obtain any necessary permissions or approvals from the Human–Subjects Review Committee of their affiliated campus or agency, and (b) must comply with the usual ethical standards relating to all research and experimental subjects. All authors are required to disclose for publication any possible conflicts of interest. Also, congruent with past practice, exclusions of important or relevant content for length reduction will be resisted as much as possible.

#### **Mechanics**

Authors are encouraged to contact the editor to discuss their manuscript prior to submission and to answer questions and clarify procedures and processes. Initially, a paper should be submitted to the editor by email as a PDF attachment.

The email will contain a cover letter. This letter should describe the article, and the work or history behind it, and will include the author name(s), affiliation(s), addresses, phone numbers, paper title, footnotes (e.g., acknowledgements, disclosures, and email or other contact information for publication) as well as comprehensive contact information on up to six suggestions for possible reviewers.

The PDF document (a) should have *only* the author's name in the file name (which the Editor will record with the assigned manuscript number while replacing the name with the number in the file name before sending the manuscript PDF file out to reviewers), (b) should use the standard style exemplified by papers in past issues of the journal (as TIBI is uncommitted to any particular, formal "style"), and (c) should come from a Word-format document set in 12 point type on 24 point leading (i.e., double spaced) with 1.25 inch side margins and 0.75 inch top and bottom margins, excluding the title header and page-number footer (i.e., all text parts of the pieceincluding tables, figures, photos, etc.-fit in text blocks that are 6.0 inches wide and 9.5 inches tall, with the title header just above this block and the page-number footer just below this block). These measurements are for us letter size paper; for other paper sizes, the text block size and top margin remain the same while the other margins will change as needed. The text parts of the paper start with the title, then an abstract, and a list of "Key Words" for indexing purposes, followed by the body of the piece plus references and figures or tables. Work all footnote material into the text. Upon acceptance, papers should be provided to the editor as a Word-format document along with a new PDF of the Word file (to verify the accuracy of content transfers during page-layout operations).

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## If You Build It, Will They Come? Can You Even Build It? Why Walden Two Fails as a Model for Societal Change

### Thomas S. Critchfield\*

Illinois State University

### **Ronnie Detrich**

Utah State University

*Abstract:* Real communities modeled after Skinner's *Walden Two* have generally not performed very well or lasted very long. To take up the question of why, we discuss how *Walden Two*, like most utopian fiction, is more of a call to arms than a blueprint for action. We also identify some areas in which the science of behavior will need to advance before it is ready to support community building. In the end, the "problem" with *Walden Two* is simply that it is too far ahead of its time.

, kinner's (1948) Walden Two is an example (actually the first example in behavior analysis) of exploring how scientifically-derived principles might support useful everyday technologies (e.g., Mace & Critchfield, 2010). Praise has been heaped upon Waldon Two in this regard, but also criticism. Some skeptics, mostly from outside of behavior analysis, doubt that such a planful, evidencedriven society is possible or desirable. Others, mostly from within behavior analysis, have accepted the general premise of Walden Two but wondered about the details of its fictional execution. For instance, Ledoux (1985) and others have questioned whether the specific contingency systems described by Skinner could actually be effective, and have proposed tweaks they believe could improve those systems. Impetus for these proposals comes from the inconvenient reality that, although many real Walden Two-style communities (hereafter: wTSCs) have been established, most have not thrived, and none have achieved levels of economic prosperity, organizational stability, and self-sufficiency approaching what Skinner imagined (Kuhlman, 2010).<sup>1</sup> In broad strokes, we agree with other observers about what this implies: In his quest to lay a foundation for societal reform, Skinner may not have got everything quite right. We believe, however, that most proposals for improving the Walden Two model ignore the central blind spot in our discipline's vision of societal re-engineering. To explain this assertion, in the comments that follow, we acknowledge Walden Two's prescience about the power and reach of a technology of

behavior; describe a key mechanism employed in utopian fiction to inspire behavior change; explain how this mechanism is also the Achilles Heel of utopian fiction; and discuss some of the things that would need to be known to skillfully plan a WTSC.

#### Credit Where It is Due

Dr. Skinner took a rat, And in his easy chair he sat, And held the rodent on his knees, And gave each little paw a squeeze. And said, "Oh mirror of mankind, Whose ways so accurately I find Reflect the masses... G.W. Phelps, quoted in Rutherford (2009, pp. 40–41).

*Key words:* Natural science of behavior, behavior analysis, behaviorology, experimental communities, sustainable communities, intentional communities, community design, cultural practices, education.

<sup>&</sup>lt;sup>1</sup> With this appraisal we intend no disrespect to Comunidad Los Horcones, which is likely the most successful of all wTSCS: It has been in continuous operation since 1973 and, unlike most other putative wTSCS, has retained features that make it recognizable as an intellectual descendent of *Walden Two* (Comunidad Los Horcones, 1986). Nevertheless, it has not prospered in the same way as the fictional community and it may be the only one of its kind. We therefore feel comfortable describing the *Walden Two* model in "failure to launch" terms.

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Walden Two may not quite mark the beginning of applied behavior analysis (ABA), but it is certainly a harbinger of great things to come (Altus & Morris, 2009; Morris, et al., 2005; cf. Kazdin, 1977; Krasner, 2001). Nowadays it is taken for granted that behavior technology can address nearly any situation imaginable, and for good reason. Recently, the present authors were part of a team that catalogued around 350 different domains of socially significant behavior in which empirical behavioral analyses have been conducted (Heward, et al., in press). A reference list of more than 500 published sources was needed just to document the existence of these domains! And many of the domains themselves incorporate dozens or even hundreds of published articles. This suffocatingly massive evidence base leaves no doubt about the relevance of laboratory-derived behavior principles to everyday life.

But none of that existed in 1948. There was no technology of behavior,<sup>2</sup> and behavioral research of the era focused exclusively on nonhumans, with goals that were heavily philosophical (combating mentalistic accounts) and methodological (developing reliable laboratory preparations). True, early on Skinner (1935) had telegraphed the ubiquity of behavior principles. But he did so with such clinical detachment ("the generic nature of the concepts of stimulus and response;" p. 40) that a reader could be forgiven for failing to grasp the possible repercussions. Skinner (1938) also had floated a technological justification for the laboratory research described in The Behavior of Organisms ("The need for a science of behavior should be clear to anyone who looks about him at the role of behavior in human affairs;" p. 5). But he expressly disavowed responsibility for pinpointing any specific technological implications ("We can neither assert nor deny discontinuity between the human and subhuman fields so long as we know so little about either;" therefore, "let him extrapolate who will;" p. 442)

Somehow, a mere heartbeat later on the scholarly time scale, *Walden Two* burst forth to describe how Skinner's framework could be extended, not just to the everyday behavior of individual humans, but to the very design of society. To appreciate how far Skinner was ahead of his time, compare the audacity of *Walden Two* with the cautious approach adopted, a generation or two later, by some of ABA's founders who felt that, even in the 1950s and 1960s, too little might be known about behavior to support an applied technology. To wit:

> Few had made the leap from the lab to the other side of the one-way mirror or

to schools or to homes. In fact, some were of the opinion that such a leap was premature and unwise because we didn't know enough, that we needed to wait for more basic human operant research (Wolf, 2001, p. 290).

*Walden Two*, of course, conveyed no such insecurity, and its bold vision has inspired a number of readers to establish communities based on it (Kuhlman, 2010). It's a daring thing to try to build a community (experimental or otherwise) from scratch, so next we consider how the book has managed to inspire people to do that.

### **Manipulating Motivating Operations**

Utopias are desired possible worlds ideal worlds that may possibly exist, at least in imagination.... Utopias may motivate people's strivings with a view to moving their current reality closer to their ideal (Fernando et al., 2018, pp. 719–720).

Walden Two is science fiction<sup>3</sup> in the sub-genre that Williams (1978) called technological transformation ("a new kind of life has been made possible by a technical discovery," p. 204).<sup>4</sup> In most examples of this type of fiction, the discovery involves material technology, such as the perpetual power source in Bulwer-Lytton's The Coming Race, but "In Skinner's view, the technology of behavior worked on human behavior like physical technology worked on a technical problem" (Rutherford, 2017, p. 298). As Skinner (1976) said in the foreword to a reprinting of Walden Two, protagonist Frazier was created to persuade readers that a better world springs, not from abstractions like wisdom and common sense, but instead from "a special behavioral science which can take the place of wisdom and common sense and with happier results" (p. vii). Overall, Walden Two was written to assure the reader that a better world is not just imaginable but "within reach" (p. vii) if only society will embrace the technology of behavior.

This illustrates that utopian fiction exists both to entertain and to rally. Skinner deserves much credit for grasping that scientific data alone rarely persuade, with the result that society often ignores evidence–based

<sup>&</sup>lt;sup>2</sup> Unless you count the air crib, which was, in Skinner's (1945) own words, "a labor saving device" (p. 30) for parents. This was not a technology for shaping child behavior and therefore not much of a basis for speculating about the redesign of society.

<sup>&</sup>lt;sup>3</sup> Skinner's own description in the Foreword of *Walden Two's* 1976 printing.

<sup>&</sup>lt;sup>4</sup> This tradition in science fiction traces at least back to *The New Atlantis* of Francis Bacon, who, unsurprisingly, was one of Skinner's important early influences (Rutherford, 2017).

innovations (Rogers, 2003). In behavior-science terms, this is because data are merely verbal stimuli (Skinner, 1957), and stimuli influence behavior only under special circumstances, for instance, when embedded in effective operant contingencies. Utopian stories manipulate no real-world contingencies, but they attempt the next best thing, which is to alter motivating operations that may potentiate certain kinds of behavior (Laraway et al., 2014; see also Grant, 2005; Hineline, 2018). The purpose of Walden Two, therefore, is only nominally to describe an experimental community. Rather, the real emphasis is on illustrating how nice it would be to live in such a place. In theory, if this good-life story is powerful enough, reader behaviors related to building and running experimental communities will become more probable, because associated reinforcers have been made more salient. The many efforts at establishing real wTSCs (Kuhlman, 2010) suggest that, in the case of Walden Two, motivating operations were in fact successfully manipulated.

As a one-time student of literature, Skinner presumably understood how a story mobilizes behavior. A story is basically the verbal manipulation of listener emotions that underpin motivating operations (Detrich, 2018; Grant, 2005; Hineline, 2018).<sup>5</sup> Several tried and true techniques, called narrative arcs, have been identified for accomplishing this. These arcs create sequences of listener emotions, and both the analysis of popular literature (e.g., Vonnegut, 2005) and experimental evidence indicate that people resonate especially to sequences that involve transitions from pleasant to unpleasant emotional responses. Nowhere are these arcs more evident than in a large-scale research project analyzing a number of classic books on a word-by-word basis (e.g., Reagan et al., 2016). The gist of the method is to map a running average of the valence of a book's words on a scale ranging from pleasant (happy) to unpleasant (unhappy).<sup>6</sup> Figure 1 shows a fairly straightforward example from Samuel Butler's Erewhon. Note particularly how valence plummets near mid-book, then peaks soon after. Such transitions are the stuff out of which motivating operations are made (Critchfield, 2018; Strick & Volbena, 2018; Vonegut, 2005), and utopian fiction tends to employ them liberally. A key deviceone seen often in Walden Two's debates between Frazier and Burris-involves a protagonist's initial unease with some unfamiliar way of life giving way to wonder as the protagonist grasps its superiority over what the traditional world has to offer. It is this juxtaposition of a fraught societal status quo with the much happier world of the

#### Figure 1



Narrative Arc of Samuel Butler's Erewhon.

<sup>&</sup>lt;sup>5</sup> For more on the relationship between emotional responses and motivating operations, including a consideration of how this squares with Skinner's views on emotion, see Critchfield, 2018.

<sup>&</sup>lt;sup>6</sup> Considerable research has examined the normative valence of a host of English words (e.g., Warriner et al, 2013), based on responses of real people, but for purposes of evaluating massive bodies of text such as whole novels, artificial intelligence systems have been developed.

The curve is a rolling mean of word emotion (on the right abscissa, lower = more unpleasant, higher = more pleasant). Asterisks designate some transitions from unpleasant to pleasant emotion. These are portions of the narrative that readers are thought to especially enjoy and, possibly, experience as motivating operations. Created by Reagan et al. (2016) and reproduced from https://hedonometer.org/books/v1/?book=Erewhon

experimental community that makes readers feel the urge to hop out of their arm chairs to pursue the *Walden Two* ideal. Unfortunately, this urge is not synonymous with the many behaviors that are required to build a community from scratch, for reasons we explain next.

### Cutting Corners in Service of a Good Story

Hypothetical questions get hypothetical answers (Baez, 1968, p. 33).

Motivating operations do not create new behavior (Laraway et al., 2014; Michael, 1983). By altering the salience of consequences, they potentiate established behavior patterns, but they do not teach new ones. At best, when reinforcers are especially salient but relevant behavior repertoires are missing, reinforcers can occasion generic "approach" or exploratory behavior (Balsam et al., 1998; Day et al., 1995). One of the present authors has a dog and a glass door to the back yard. When it is warm inside (reinforcer) and the dog is placed outside in the cold (motivating operation), she will repeatedly bump up against the glass, claw at it, and whine. This display is very energetic and can persist for quite a while. Its irony is that the door does not latch, so in principle the dog could open it by prying her claws into the gap between the door and its frame. But no matter how long the dog is left out in the cold, she does not "discover" this. In everyday language, we may say that the dog wants very much to come in, but doesn't know how. And so it may be for a Walden Two reader: When she jumps out of her arm chair she knows the reinforcer (living in a wTSC) but not how to get it. And the reason why is baked into the DNA of utopian fiction.

Utopian fiction is not just a story about improving society. It is a *convenient* story that, for narrative effect, shows the benefits of a modified society but glosses over the hard work of creating change. Transformative experiences make for a good read—but only if they are not diluted with too many mundane practical details. Imagine, for instance, if Wolfe's *The Electric Kool–Aid Acid Test* had devoted substantial text to describing, not a psychedelic cross–country road trip, but rather the process of purchasing a microbus, making sure it was mechanically sound, and getting it properly packed.

To avoid getting bogged down in practical details, utopian fiction almost always takes certain shortcuts. One is to present a story already in progress. Hence *Star Trek* makes us want to join the crew of the Starship Enterprise in exploring strange new worlds, but it takes place in a universe where interstellar travel is a given, and it certainly does not tell us how to build a warp drive. Similarly, *Walden Two* introduces a fully functioning community that has been operating and for close to 20 years. Relatively little is said about the bootstrapping process by which it was first created. For instance, what was the source of the community's land and material infrastructure? How did the founders decide on the community's initial set of rules and practices? How did they select behavioral data to monitor in guiding the evolution of those rules and practices? In real life, genius may be 99% perspiration, but the hard work, early failures, and data–based decision making that are essential to launching a new form of community would make for a snoozer of a novel.

Utopian novels also sidestep problems of countercontrol-factors that might compromise an experimental community's capacity to operate independently in whatever way the author envisionsby using what we call the Basque Solution. For perhaps several thousand years, the Basque people have sustained a language and culture distinct from those of the rest of Europe. This has been possible in large measure because they inhabit remote mountain terrain that separates them from other cultures and resists outside incursion (Kurlansky, 2000). Similarly, note how Campenella (The City of the Sun), Bacon (The New Atlantis), and Huxley (Island) placed their utopias on remote islands where new societies might prosper far from controlling influences of the European hegemony within which these authors wrote. Skinner's Basque Solution was to make Walden Two a self-contained rural community with limited outside contact. Just as with the Basques, whose origins are lost to history (Kurlansky, 2000), we know that, at some point in the past, people chose to cross both geographical and cultural divides to join the Walden Two community, but Skinner says little about how this came to be. In the contemporary time frame, details are sketchy on how the Walden Two community maintains the autonomy on which it was founded. For instance, Skinner conveniently avoids discussing how the community deals with matters that are adjudicated by the larger society: think of property taxes, sewer hookups, driver licenses, and various safety mandates (e.g., environmental, workplace, food handling, etc.). Again, this stuff is critical to operating a community, but would make for a dull read.

It should be clear that utopian fiction walks a difficult tightrope. On the one hand, to inspire action, the author must manipulate motivating operations. On the other hand, details that might provide a blueprint for practical action are unlikely to be motivating. In the final analysis, *Walden Two* is a story of living in an experimental community, not a manual for how to establish one. It is a glass door through which we can view the warm confines of a better society, but it provides few clues about how to open that door, and therefore leaves a lot of guesswork to those who try to establish real experimental communities.

#### Living in the Real World

I start from where the world is, as it is, not as I would like it to be. That we accept the world as it is does not in any sense weaken our desire to change it into what we believe it should be—it is necessary to begin where the world is if we are going to change it to what we think it should be. That means working in the system (Alinsky, 1989, p. xix).

Let us now shift perspective from those who imagine better worlds in utopian fiction to those who would pursue better worlds by establishing experimental communities. To have hope of building a sustainable community system—that is, to get a community operating in the real world for long enough that it can benefit from experimental management—those founders need insights on at least three fronts, none of which receives substantial attention in *Walden Two*.

#### Harnessing General Principles For Specific Purposes

There is a big difference between knowing nature's laws and knowing how to bend them to one's needs. For instance, every successful civil engineering project must take gravity into account, but this does not guarantee that every bridge designed by a well–informed engineer will stand (Horgan, 2021). Similarly, every successful societal engineering effort must employ positive reinforcement, but as Baer (1981) has noted this does not make it easy to:

... Find the ways necessary to get the positive reinforcement principle implemented in every real-world situation needful of it. The principle underlying positive reinforcement will be the same in every one of those situations, once they succeed; but *the procedures necessary to accomplish that success will be...quite varied* (p. 88, emphasis added).

Although the principles of behavior that inspired *Walden Two* are well established, this is orthogonal to the question of whether specific practices of the fictional community would really work. Skinner knew this, and acknowledged that the community's experimental management system was created in large measure to absolve him of responsibility for being impossibly prescient. "I had no idea how the principles could be applied to real live people," he wrote later, admitting that

should the specific contingency arrangements described in the book prove to be effective in the real world, "I'll have made one of the most remarkable guesses in history" (quoted in Hall, 1972, p. 71). Thus, Skinner did not doubt the principles, only the means of applying them. That is something that tends to get worked out in the trenches of implementation, not in the pages of a novel, and in this respect we can be grateful even for failed attempts at establishing experimental communities. As Ledoux (1985) alludes, they at least help to identify what doesn't work. However, studies of the process of implementation argue against relying on brute-force trial and error in the field (Detrich, 2013; Fixsen, et al., 2019). Here is an extremely important distinction: that between inductive, evidence-driven tinkering, as per Skinner (1956, "Case history"), and evidence-based practice (Smith, 2013; Spencer et al., 2012). The former is essentially the Walden Two community management model, in which "experimentation" and implementation are intermingled. The latter implies development and testing of problemspecific solutions before exposing community members to them, and is intended to minimize false starts that waste people's time or even cause unintentional harm. Overall, interventions are more likely to succeed when vetted under relatively controlled conditions before being modified by "experimental" management in the field.

The approach of research first/implementation second also may allow intervention development to profit more from the guidance of theory.<sup>7</sup> However, in the quest to translate from behavior theory to principles of community design, one major limitation involves the science of behavior itself. Skinner (1938) set out to create a science of individual behavior, and as behavior analysis has matured as a discipline its philosophical and methodological commitment to the individual as unit of analysis has not wavered (e.g., Johnston et al., 2010). This is evident in mission statements of the field's two flagship empirical journals. In basic science, the Journal of the Experimental Analysis of Behavior is "primarily for the original publication of experiments relevant to the behavior of individual organisms" (masthead, emphasis added). In applied science, the Journal of Applied Behavior Analysis "publishes research about applications of the experimental analysis of behavior to problems of social importance" (masthead), and according to the seminal definition of ABA, application, "asks how it is possible to

<sup>&</sup>lt;sup>7</sup> In the late 1970s and early 1980s, concern arose that theory-deaf, evidence-driven tinkering was causing ABA to lose its innovative spark (e.g., Hayes et al. 1980). A subsequent shift to a more theory-driven approach (today we would call this a translational strategy; Mace & Critchfield, 2010) has served ABA well.

get an i*ndividual* to do something effectively" (Baer et al., 1968, p. 93, emphasis added).

Unfortunately, communities are not just collections of individuals acting independently in a confined space. They are complex dynamical social systems (Hooker, 2013; Gonze et al., 2018), which Marr (2006) explained as having these properties, among others:

> (I) A number of interacting components or subsystems... are correlated in some way, (2) nonlinearity, that is combinations of states or inputs are not additive (or subtractive), (3) the behavior of the system is not predictable from separate consideration of its components, but only from understanding the relations among them... (4) ... Spatial and temporal scale-invariant properties such that no characteristic event size or time [controls] the evolution of the system. This means their stochastic properties will follow power laws. (5) Self-organization in which patterns emerge from within the system through mutual interaction of the system's elements (pp. 62–63).

Nonlinear systems may be describable only mathematically, because the layered interactions among variables may be so complex as to defy verbal description, and as Marr pointed out, most behavior analysts lack the training necessary to operate at this level of analysis. We count ourselves among that unfortunate lot, but we understand one key qualitative point: Communities (with their "interacting components") may have emergent properties that are not deducible from individual behavior. The key question for a community designer thus becomes: What does the science of behavior teach us about non–linear effects that can emerge from social systems?

Almost nothing, as it turns out. Basic behavioral science has dived deep into what individuals do under schedules of reinforcement, for instance, and ABA has spawned countless interventions to address behavior challenges of individual clients. Yet as a discipline "we have spent almost no time exploring the simplest interactive contingencies between just two organisms" (Marr, 2006, p. 63, emphasis in original). A handful of laboratory studies have examined what two individuals do when their contingencies of reinforcement are intertwined (e.g., Buskist & DeGrandpre, 1995; Epstein et al., 1980; Schmid & Hake, 1983; Schmitt, 1984). Only a few have explored what happens with larger groups (e.g., Brady et al., 1988; Emurian et al., 1985; Madden et al., 2002). In ABA, individuals have been taught skills that are useful in social situations (e.g., Donaldson, et al., 2014), and a variety of fairly simple group contingencies have been explored to promote discrete behaviors (e.g.,

Barrish et al., 1969; Jones et al., 2019). But this work falls far short of the complexity of a complete social system that incorporates numerous behaviors of numerous individuals embedded in numerous interlocking contingencies, and it has focused mostly on young children and persons with disabilities rather than the independent adults who would comprise an experimental community.

#### Recruiting Buy–In

Even if Walden Two described every operational detail of its experimental community, and even if every detail were spot on with respect to how behavior is understood to work in complex social systems, there would still be a gaping hole in the implementation plan. This is because in the real world, unlike in isolated fictional locales, a new community will be carved out of the existing societal landscape, both literally (it has to exist somewhere) and figuratively (it cannot ignore existing societal systems). Some real human beings will decide whether to join or ignore the community; others (policy makers) will make decisions about resource allocation and jurisdictional values that will affect community operations. Most of the people involved probably lack a solid understanding of the principles of behavior (e.g., Skinner, 1953, 1971). Therefore, as Ledoux (1985) intimates, considerable persuasion will be required to get a new community off the ground.

Yet, "it is somewhat ironic that what is arguably a science of influence (behavior analysis) has not been more effective at influencing the adoption rate of a science of influence" (Detrich, 2018, p. 541). Efforts to establish new communities would be advanced considerably by a reliable technology for recruiting buy–in. For instance, one key goal is to persuade the first community members to give up their old lives to try, and hopefully embrace, practices and values that would certainly seem strange (Ledoux, 1985).<sup>8</sup> One imagines a community as non–normative as that in *Walden Two* to be a tough sell to

<sup>&</sup>lt;sup>8</sup> For example, the fictional *Walden Two* community promotes an egalitarian relationship between men and women that was atypical for 1940s America, and has not yet been fully achieved in today's United States. Women still earn less money than men for comparable work (Shrestha et al., 2020) and they carry a disproportionate burden of domestic responsibilities (Kolpashnikova & Kan, 2020). In this real world, gains for women often have been achieved through conflict: hotly debated court cases and unpopular top–down public policy. How did the Walden Two community do better? Did it select only members who already held egalitarian values? Did it gradually shape those values? *Walden Two* doesn't really say, but without a solution for problems like this a Walden Two community could not exist.

people with behavioral histories in the existing word. Hence the reaction of observers like Tinker (1949), who suggested that, "Life in Walden Two would be intolerable to a normal human being brought up in contemporary American culture. Few of those living in a democracy will accept or admire Skinner's schema of political science ... or wish to be governed by specialists, particularly by psychologists" (p. 252). If means exist for bridging the gap between normative histories and non-normative communities, neither *Walden Two* nor the science of behavior says much about them.

Another key goal is to gain the cooperation of societal mechanisms that are bigger than the community (e.g., Gable, 1999). Resource allocation and other critical practices in the existing world are controlled by governmental and corporate systems, by rich and powerful individuals and groups—in short, not by fans of *Walden Two*. And control is rarely ceded willingly (e.g., Nevin 2005), which of course is what leads behavior analysts to wish for a utopian world without countercontrol.<sup>9</sup> The alternative, budging entrenched societal power structures, requires expertise and effort (e.g., Fawcett, et al., 1988; Gerston, 2014; Seekins & Fawcett, 1981; Stoltz, 1981; Task Force on Public Policy, 1988). Unfortunately, little guidance on this originates in behavior science as the behavior analyst knows it.

There is, however, one aspect of influence-seeking that is relatively well understood. In his classic book Diffusion of Innovations, Rogers (2003) stressed that innovations most likely to be widely adopted are those that are compatible with a culture's values, beliefs, and experiences. Readers know well that behavior science is often rejected (e.g., Kohn, 1999), because it clashes with cultural norms. A critical aspect of innovations, therefore, is how they are explained, and on this point the research is clear: The technical jargon of behavior analysis does not win converts to our cause (e.g., Becirevic et al., 2016; Critchfield et al., 2018; Witt et al., 1984). It is telling that in Walden Two there was no technical language; Frazier seemed content to let the benefits of behavior technology speak for themselves. This is standard advice for persuading members of the public, members of other professions, and even policy makers (e.g., Bailey, 1991; Foxx, 1990; Friman, 2006; Seekins & Fawcett, 1986). We are unsure how often the advice is followed, however, because discussions about wTSCs tend to focus on characteristics of a community rather than how to

have productive discussions with various kinds of cultural stakeholders whose diverse values and goals could affect the community's success.

#### Scaling Up

A final conundrum about experimental communities regards how they can address the challenge of reforming society. That is the macro level on which the world's problems tend to be discussed (e.g., Skinner, 1953, 1978, 1984, 1986, 1987, 1993), but Walden Two offers a microlevel solution. This is not unusual for fictional utopias, because a side effect of isolating them geographically is that this constrains their size. To remain isolated, a community cannot grow too large, else it would draw attention, and presumably unwanted influence, from the mainstream. Islands, of course, place natural limits on community size, and Walden Two's 1,000 or so residents live on a metaphorical island. But for the innovations of an experimental community to address *society*'s problems, they must somehow be scaled up. This means developing management and contingency systems capable of operating expansively while somehow preserving system integrity in the face of numerous local peculiarities. Heuristics are being developed for exactly this, but they do not typically come from the core of behavior science (e.g., Detrich, 2013; Fixsen & Blase, 2019; Horner & Kittelmanm, 2021; Westley et al., 2014).

Skinner himself acknowledged that scaling up is hard ("What works for a small group is far short of what is needed for a nation or the world as a whole;" Skinner, 1976, p. ix). But he apparently regarded scaling up as a false ideal.

What is so wonderful about being big? It is often said that the world is suffering from the ills of bigness, and we now have some clinical examples in our large cities. Many cities are probably past the point of good government because too many things are wrong. Should we not ask rather whether we need cities?... It has been suggested that the America of the future may be simply a network of small towns. But should we not say Walden Twos? (p. ix).

The preceding is one of Skinner's rare logical hiccups. It does not follow that because contemporary cities are big, and some of them are flawed, that anything big necessarily is flawed. Nor does it follow that a network of wTSCS would necessarily be superior, especially given that Skinner provided no insight into how the world's eight billion inhabitants might all be educated sufficiently to establish and manage experimental communities (this is one type of scaling problem). But the argument's sketchy logic is less problematic than the influence Skinner may

<sup>&</sup>lt;sup>9</sup> Example in point: Ardila's (1990) fantasy of a totalitarian regime forcefully installing a *Walden Two*-style societal management system. A character in the book justifies the approach by remarking, "Operant psychology has the principles and the laws to change the world, but it doesn't have the power" (p. 20).

have had in persuading followers of *Walden Two* that it is unnecessary to program for scaling up. We find it unsurprising that real experimental communities often struggle to grow while preserving their original design (e.g., Ledoux, 1985).

### Placing Reasonable Expectations on Walden Two

We have now identified what we see as the fatal flaw in real-world experimental communities. The problem is not that Skinner's grand plan in Walden Two requires tweaking (e.g., Ledoux, 1985). The problem is that Walden Two is not a grand plan in the first place. It is, like all utopian fiction, a polemic, a call to arms, an exercise in manipulating motivating operations. A fair parallel is the Preamble to the U.S. Constitution. As government documents go, it is rather easy to follow and even somewhat stirring in its account of why a new grand plan for government is necessary. But the Preamble is not a grand plan for how to run a nation. That is the job of the Constitution, dense and dull and intricate as it may be. Our point is that, in the quest to re-engineer society, behavior analysis currently lacks a Constitution to accompany Walden Two's Preamble.

If those who would follow Skinner's fictional lead by trying to establish real WTSCs are guilty of any sin, it is that of granting *Walden Two* greater significance than it deserves. The book may be a thought provoking exploration of one approach to rebuilding society from the ground up, but it is not, as we have said, an instruction manual for accomplishing this. If Skinner the author committed a sin, it was merely that of doing what was necessary to capture imaginations, a strategic move that typically comes at the cost of skimping on practical details. Skinner also, of course, was guilty of being ahead of his time. Behavior science as it existed in 1948 was incapable of supporting a practical technology of community building.

As for contemporary behavior science, it may be guilty of not moving fast enough to remedy this deficit, something that hardly constitutes a sin. Science is always incomplete, and brilliant ideas often arise ahead of developments that would support their implementation. We can therefore celebrate Ada Lovelace for inventing binary code before digital technology existed to harness it, and we can celebrate her colleague Charles Babbage for conceiving of a hopelessly unworkable mechanical version of what would later be called computers (Wooley, 1999). But acknowledging the precocious insights of Lovelace and Babbage does not make them world changers. At best, Lovelace and Babbage helped to frame problems that later workers would solve. This is how we should view *Walden Two*.

So, where does this leave the *Walden Two* enthusiast who longs for a society in which "behavioral science ... can take the place of wisdom and common sense and with happier results" (Skinner, 1976, p. viii)? Unfortunately, there is no hurrying these things, and behavior science may just not be ready to support a reliable technology of community building. Skinner (1948) obviously thought otherwise ("The start has been made. It's a question of what's to be done from now on;" p. 257). But there is no sense wrestling with problems of implementation until there is adequate science to support what's being implemented. This makes the job of the *Walden Two* enthusiast, first and foremost, one of solidifying the foundations on which future communities might be built. Among the tasks at hand:

- ✤ Learn about dynamical systems and the methods by which they are studied.
- Conduct research to advance an empirical behavior science of social systems.
- ✤ Learn about existing social systems and the variables that influence them.
- Borrow insights from other disciplines that have made progress toward understanding social systems and ways to influence individuals, groups, and the public-policy process.
- ♂★ Learn everything there is to know about implementation science.

Though less entertaining and motivating than reading a utopian novel, these steps are more likely to pave the way for creation of successful experimental communities.

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## Far To Go But Still Must Get There—A Response to a Special Section on Building Sustainable Communities

### Stephen Ledoux\*

*Abstract:* A Special Section of papers on "Twenty-first century natural-science views on sustainable community possibilities inspired by *Walden Two*" explores the relevance and applicability of the experimental and applied natural science of behavior, and the related societal and cultural possibilities, that the original novel, *Walden Two*, and decades of subsequent discussions about actually established experimental communities, described. Later developments in this and related natural sciences, from areas diversely and temporarily labeled "cultural practice analysis," "metacontingency analysis," or "culturology," (among other labels) may beneficially foster the discussions.

In its Fall 2022 issue (volume 25, number 2) the Journal of Behaviorology ran a Special Section under the title, "Twenty-first century natural-science views on sustainable community possibilities inspired by Walden Two" (i.e., B. F. Skinner's "utopian" novel, first published in 1948). To evoke peer commentary, the Editor issued a wide call for papers. As resources, it referred potential authors to a recent sequel to Walden Two (Shuler, 2021) and provided them with the article, "Designing a new Walden Two-Inspired Community" (Ledoux, 1985) a paper originally published in a journal that supported the development of "intentional" communities. This paper provided a few possible early answers (i.e., from the early 1980s) to questions that difficult experiences (e.g., getting and retaining members and building their communities) had already raised for some Walden Twoinspired communities. Later, the Editor also asked for this "In Response" for whatever papers appeared in the initial issue of this Special Section (which, given the importance of the topic to helping humanity's future, will continue with papers in future issues).

Why call for such papers? Because, as the Editor's paper call stated, "Given increasing world concerns for sustainable living, natural scientists of behavior have contributions to make regarding the human behaviors that cause global problems and the changes in human behavior needed to solve these problems." Natural scientists whose specialization involves scientifically studying and understanding the natural laws governing behavior (i.e., the full range of natural variables that these scientists summarize with the phrase, "contingencies of reinforcement") have become responsible, in our world culture, not only to discover, produce, and provide knowledge of these variables, but also to discover, produce, and provide knowledge of their socially valuable applications (e.g., the ABA [Applied Behavior Analysis] interventions so successful with children and adults with autism and developmental disabilities). Many other areas of application for this natural science exist. A short list would at least include parenting, regular and special education, behavioral medicine, behavioral safety, dignified dying, rehabilitation, companion animal training, and-most importantly for helping humanity solve its global problems—green contingency engineering, which is perhaps a more accurate rendition of the label "green behavior engineering."

Are all such applications well developed and available at present? Of course not, although some are more developed than others (e.g., see some of the described books at www.behaviorology.org and other websites that cover natural behavior science concerns), which is one of the reasons for this Special Section. To begin building natural–science applications relevant to green contingency engineering, natural scientists of behavior must first institutionalize this natural science, under its own name and independent of other disciplines (especially other non–natural–science disciplines) in courses and degree programs in the colleges and universities of higher education. Why? Because this natural science, as an offshoot of biology, is not a part

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of, nor any kind of, psychology, and so it should operate from higher education's natural-science units, not its social-science units (see Ledoux, 2021a, 2021b, 2022; also see Ledoux & O'Heare, 2021). And this effort must occur without losing sight of the obligation to serve humanity's longer term needs of providing this natural science's share of contributions to helping solve global problems. How close are we?

A sense of how far we—and our disciplinary descendants—have to go stems from the need to specify, consistently, the term "natural science" throughout works like this article, because in some parts of the world, the term "science" by itself does not evoke the distinct connotation of strictly natural–science disciplines that the term "natural science" evokes in other parts of the world (e.g., natural–science disciplines such as physics, chemistry, biology, behaviorology). As an example of a contradictory usage, in the university in Leuven, Belgium, the religion department goes by the official title, "Department of Theological Sciences."

The conditioning of this author's repertoire led, years ago, to tacting (Peterson & Ledoux, 2014) the independent natural science of behavior as "behaviorology." Like the "behavior analysis" that also grew out of "The Experimental Analysis of Behavior" that Skinner and his colleagues and students founded and developed since the 1930s, this natural science is no part, nor kind, of psychology.

All that seems to leave us pretty far yet to go. It is probably emotionally scary or depressing to even consider it. But is the alternative—not doing our share—in any way better? Of course not! As nature has already conditioned us through the discovered, produced, and provided knowledge of our science, we start where we are and proceed as steadily as possible with contingency–change efforts that, along with the efforts of so many others in other areas of our culture, build toward shaping—gradually, or faster if possible—a fully sustainable world. We start by dealing with small questions, such as those that my 1985 article addressed, and then move on to other broader, deeper, or more focused questions, such as those that the *Special–Section* papers raise.

The Editor's call for papers mentioned some—but by no means all—of the areas of those further questions. For starters, "if the topics of this article were addressed today..., how might the topics be similar, and how might they be different, and what other parameters should/ could be considered and how?" Then it continued:

So many more issues could also be discussed. Some communities are at a distance and other communities are the ones we currently inhabit, with many hundreds of miles between them but we interact nevertheless. And with sustainable communities, many questions concern the diversity of communities, and the economics of communities, and the politics in communities, and education in communities, and the living and working conditions in communities, and so on. Isolated versus non-isolated communities is ripe for discussion. How would a city planner consider the question, if she/he were not behaviorologically informed and if she/he were behaviorologically informed. Similarly, an architect, or a political scientist, or an ethicist, or ... You probably have a repertoire that enables you to address some of these, or even other, considerations. Please do so to help others more fully understand and appreciate the topic of communities and sustainability better while we still have time to make a difference."

*Special Section* papers, however, need not make their contributions by directly addressing any of those points. Indeed, the contributions of the first paper accepted for the *Special Section* stem from immediately jumping beyond those points.

#### The Contributions of Critchfield & Detrich (2022)

This author's old paper (Ledoux, 1985) is just that, old, and it represents a repertoire that is not currently me; as pointed out to the Editor, this has applied for quite a while. On the other hand, the paper by Critchfield and Detrich provides an excellent contribution to the *general* kinds of questions that the 1985 paper was to evoke. For Critchfield and Detrich did not really directly address the possibilities listed in the call for papers. Instead, they saw and wrote about a much bigger picture. Apparently those paper–call possibilities mostly continued the premise that Critchfield and Detrich seem to consider as false, the premise that at present we have too little to go on to use *Walden Two* as a workable model. Instead, these authors have given us far more than what the Journal's Call for Papers asked for, and they are quite right to do so.

Critchfield and Detrich start by clarifying the real value of *Walden Two* as motivational rather than practical. This not only helps clear the confounding air regarding the relevance of *Walden Two* to the effort to understand and apply our natural science to building a sustainable society, but such clarification also sets the stage for substantive analyses that hopefully evoke more efforts to analyze fully both what is needed—from society and our science—for the task of helping build a sustainable society, and how actually to do so (i.e., the kinds of knowledge and skills to apply). Having set this stage, Critchfield and Detrich then follow through with many extensive, analytical details on exactly those kinds of parameters.

Critchfield and Detrich also keep us from losing sight of some long understood but still relevant variables. One example is Tinker's point (which they quote from Tinker, 1949) about people who are thoroughly sold on contemporary American culture; they would find life in Walden Two thoroughly intolerable. Of course, we never needed Tinker to tell us this. It has always been a predicted outcome with people for whom traditional cultural values have been heavily conditioned, starting with our culture's traditional cultural conditioning that everyone in the culture gets-before they can "like it or not"—as young children. For many (Most?) such persons, no potent alternative conditioning has had a chance to occur. And yet such potent alternative conditioning can and does occur, with the result that people thus alternatively conditioned, from their being originally sold on contemporary American culture, openly demonstrate conditioned verbal and emotional responses about seriously giving something, possibly anything, including a Walden-Two lifestyle, a try. That is, even with some for whom previous heavy conditioning has occurred, through contingencies that generate and maintain what today those in the experimental (sometimes called intentional) communities movement still call "legacy" behaviors, subsequent contingencies can condition responses appropriate to living, and appreciating, a sustainable, even Walden-Two lifestyle.

In addition, we must recognize that Tinker's antique reference to psychology can today be quite misleading. Skinner, at the time he was writing Walden Two, wasalong with, of course, his colleagues and studentstrying to completely make over psychology into a natural science of behavior. With the help of psychology's then and continuing refusal to engage in even the most basic practice of the natural sciences (e.g., to work only with natural events as independent and dependent variables) they failed to make over psychology. And the data from the attempts suggests that on this task no one will succeed, and certainly not within the time frame that global problems themselves give humanity for solving global problems (see Fraley & Ledoux, 1992/2015, for some pertinent details). So is the effort worthwhile, the effort to continue trying to change psychology into a natural science? Or is this effort just a time and energy wasting professional distraction that delays, even prevents, any help that the natural science of behavior can provide to humanity on solving global problems?

In addition, if psychology did accept that most basic practice of the natural sciences, along with the full range of related natural–science basic assumptions shaping its knowledge, skills, and practices-and so change into a natural science-then it would no longer be psychology. Nevertheless, Skinner and his colleagues and students and their successors have built a natural science of behavior that is not only independent of psychology (some say "divorced from" psychology) but that also is now only historically related to psychology, even if some natural scientists of behavior are still stuck working in departments in which, officially, traditional psychology still reigns. Many of the ABA programs residing in such departments essentially-though seldom overtlyexperience being allowed to operate just according to published minimum requirements needed for their students to pass certification exams. In this sense this confinement in psychology departments has proven to be a harmful deterrent to the expansion of ABA programs into coursework for many more areas of human need (see the discussions in later chapters of Ledoux, 2014, 2017).

All the material that Critchfield and Detrich accurately point out as being left out of Walden Two, as vital but making a "dull read," all these points go a long way to helping those who would build sustainable communities. These points make clear the necessity to first build much more extensive repertoires in a range of natural science and engineering disciplines, a range that includes the natural science of behavior with some necessary extensions. These steps may of course first require, or at least substantially benefit from, the previously mentioned step of institutionalizing this natural science, preferably in natural-science units, in higher education, because then our discipline can build the numbers of researchers and practitioners that can enable the expansion of the discipline into many more of the needed areas of human concerns.

Those steps can produce a better approximation of the comprehensive efforts needed to even try building sustainable communities, an approximation that includes more appreciation of natural science and thus hopefully better implementation of "experimental" strategies. This should improve the possibilities of successes. Or so it seems from our present vantage point.

Through their paper, Critchfield and Detrich remind us that building sustainable communities will not result from the effort alone that expands the natural science of individual behavior into a new natural science of "cultural practices," sometimes currently called "metacontingency analysis" or "culturology" (see Fraley & Ledoux, 1992/2015; such labels represent some interrelated approaches under a range of names, and are in quotes, because participants in such a science will be responsible for naming it in due time). Rather, building sustainable communities will result from efforts not only that derive from natural behavior sciences but also that derive from other natural sciences, as their examples describe. The Critchfield and Detrich paper provides some parameters for a far better foundation for our natural science of individual human behavior, a far better foundation upon which to base efforts to build sustainable communities, rather than "merely" address various considerations that were listed in the original Call for Papers. Their paper grandly jumps those considerations, which had simply been potential starting points predicated on the information provided by the 1985 paper and *Walden Two* itself. And in so grandly jumping, their paper goes on to what some—now including this author—would see as far more extensive and valuable considerations.

#### Conclusion

If future community builders respond carefully and fully along the lines covered in these papers, humanity may indeed see some helpful developments supported by our natural science of behavior in the building of sustainable communities. Meanwhile natural scientists of behavior must meet their obligations of disciplinary institutionalization in higher education, so that they can provide the numbers of trained professionals that humanity needs to help solve not just individual and local problems but also global problems within the time frame that the problems allow.

All these papers can be considered interesting, helpful, even challenging. However, remember Skinner's 1983 comment (in Ledoux, 1985, p. 28 [and as reprinted in Ledoux 2022, p. 3]) that "The life we lead displeases us, but no day is bad enough to induce us to act. We are whirling toward our doom, but we keep on patching up our way of life and avoiding the drastic change which alone can save us. Walden Two was a proposal to make a big change rather than take small remedial steps here and there, but the problems it would raise are so big that we go right on doing nothing." Where do readers see that these papers lead us in terms of responding to Skinner's 1983 comment?

#### Endnote

Readers are reminded that the *Special Section* of papers on "Twenty-first century natural-science views on sustainable community possibilities inspired by *Walden Two*" continues in future issues as authors provide manuscripts on this continuing science and engineering topic. Send your manuscripts to the Editor (see the *Submission Guidelines* on page 8 of this issue).

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<sup>\*</sup>A full description of this book appears on the BOOKS page at <u>www.behaviorology.org</u> and is available through green "print–on–demand" at <u>www.lulu.com</u> (enter an author's name ...). •••



### Historical Photograph

This photograph, which Werner Matthijs took in 1983 and recently provided to *Journal* of *Behaviorology*, shows (from left to right) D. E. Blackman, C. F. Lowe, B. F. "Fred" Skinner, Eve Skinner, and Deborah Skinner (the Skinner's younger daughter who was accompanying her parents on this trip). Matthijs took the photo at the First European Meeting on the Experimental Analysis of Behaviour at the University of Liège ('Luik' in Dutch) in Belgium, where Fred Skinner was one of the presenters.

## Editorial Review Board & Guest Reviewers for This Issue

**Editorial Review Board members:** 

※ [All TIBI Board members; see the last page]

Guest Reviews (in this or last issue):

₩ Dr. Matthew Lewon

₩ Mr. Michael Shuler

# Visit www.behaviorology.org

Stay informed by visiting the TIBI web site regularly (www.behaviorology.org). We are always adding and updating material.

You can find a wide selection of useful articles, many from *Behaviorology Today / Journal of Behaviorology*, in *Adobe* PDF format. (If you need it, you will find a button to click, for a free download of Adobe's Acrobat Reader software, in the "First 10-years Archive" part of the site.) Also in the "First 10-years Archive," the articles are organized on several topical category pages (e.g., contributions to parenting and education, book reviews, and behaviorology around the world). The rest of the site features a single PDF for each full issue of both *Behaviorology Today* and *Journal of Behaviorology*. Other selections feature descriptions of numerous behaviorology texts and study-question books, TIBI's certificate programs, course syllabi, and links to some other helpful related websites. Explore! ©

# Back Issues & Donations

Some back issues of the Journal are available; the cost is US\$20 each, which includes air-equivalent postage. To place an order: Photocopy, fill out, and send in the "membership" form on a later page of nearly every Journal issue; check the "back issues" box, and list the volume and number of each back issue that you are ordering. Mail the form, with a check for the correct amount, in US dollars made payable to TIBI, to the address on the form.

*Donations/Contributions* are also welcome, and are tax-deductible as TIBI is non-profit (under 50I-C-3).

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# Syllabus Directory\*

The most recent issue of *Journal of Behaviorology* that features a Syllabus Directory contains two lists of TIBI's current course syllabi. These lists show where to find the most up-to-date versions of these syllabi in number, title, and content. The first list organizes the syllabi by numerical course number. The second list organizes the syllabi by the chronological volume, number, and pages where you can find each course syllabus.

Each of these syllabi contain only information explicit to a particular course. You will find all the relevant generic information in the article, *General Parameters & Procedures for Courses from The International Behaviorology Institute*, in *Journal of Behaviorology*, Volume 18, Number 2 (Spring, 2015) pp. 3–6.

#### Current Syllabi by Course Number

BEHG 100: Child Rearing Principles and Practices; Volume 19, Number 2 (Fall 2016) 3-5. BEHG 110: Introduction to Behaviorology Terminology; Volume 20, Number 1 (Spring, 2017) 19–21. BEHG 210: Introduction to Behaviorology I; Volume 19, Number 2 (Fall 2016) 6–8. BEHG 211: Introduction to Behaviorology II; Volume 19, Number 2 (Fall 2016) 9–12. венд 330: Companion Animal Training; Volume 19, Number 2 (Fall 2016) 13–15. BEHG 340: Introduction to Verbal Behavior; Volume 19, Number 2 (Fall 2016) 16–18. BEHG 350: Behaviorology Philosophy and History; Volume 20, Number 1 (Spring, 2017) 22–24. BEHG 405: Basic Autism Intervention Methods; Volume 19, Number 2 (Fall 2016) 19–21. венG 425: Classroom Management and Preventing School Violence; Volume 19, Number 2 (Fall 2016) 22–24. BEHG 430: Resolving Problem Animal Behavior; Volume 20, Number 1 (Spring, 2017) 25–28. венд 435: Performance Management and Preventing Workplace Violence; Volume 19, Number 2 (Fall 2016) 25–27. BEHG 455: Behaviorological Thanatology and Dignified Dying; Volume 19, Number 2 (Fall 2016) 28–31. BEHG 465: Behaviorological Rehabilitation; Volume 19, Number 2 (Fall 2016) 32–34.

BEHG 480: Green Contingency Engineering; Volume 20, Number 1 (Spring, 2017) 29–31.
BEHG 512: Advanced Behaviorology I; Volume 19, Number 2 (Fall 2016) 35–37.
BEHG 513: Advanced Behaviorology II; Volume 19, Number 2 (Fall 2016) 38–40.
BEHG 541: Advanced Verbal Behavior; Volume 19, Number 2 (Fall 2016) 41–43.\$

#### Current Syllabi by Volume & Number

BEHG 100: Child Rearing Principles and Practices; Volume 19, Number 2 (Fall 2016) 3–5. BEHG 210: Introduction to Behaviorology I; Volume 19, Number 2 (Fall 2016) 6-8. BEHG 211: Introduction to Behaviorology II; Volume 19, Number 2 (Fall 2016) 9–12. венс 330: Companion Animal Training; Volume 19, Number 2 (Fall 2016) 13–15. BEHG 340: Introduction to Verbal Behavior; Volume 19, Number 2 (Fall 2016) 16–18. BEHG 405: Basic Autism Intervention Methods; Volume 19, Number 2 (Fall 2016) 19–21. венG 425: Classroom Management and Preventing School Violence; Volume 19, Number 2 (Fall 2016) 22–24. венд 435: Performance Management and Preventing Workplace Violence; Volume 19, Number 2 (Fall 2016) 25–27. BEHG 455: Behaviorological Thanatology and Dignified Dying; Volume 19, Number 2 (Fall 2016) 28–31. BEHG 465: Behaviorological Rehabilitation; Volume 19, Number 2 (Fall 2016) 32–34. BEHG 512: Advanced Behaviorology I; Volume 19, Number 2 (Fall 2016) 35–37. венс 513: Advanced Behaviorology II; Volume 19, Number 2 (Fall 2016) 38–40. BEHG 54I: Advanced Verbal Behavior; Volume 19, Number 2 (Fall 2016) 41–43. BEHG IIO: Introduction to Behaviorology Terminology; Volume 20, Number 1 (Spring, 2017) 19–21. BEHG 350: Behaviorology Philosophy and History; Volume 20, Number 1 (Spring, 2017) 22–24. BEHG 430: Resolving Problem Animal Behavior; Volume 20, Number 1 (Spring, 2017) 25–28. BEHG 480: Green Contingency Engineering; Volume 20, Number 1 (Spring, 2017) 29-31. C3

<sup>\*</sup>All of these TIBI course syllabi were either updated in 2016 or new in 2017. Many have older version appearing in earlier issues under different course numbers; see the *Syllabus Directory* in Volume 18, Number 1 (Spring 2015) for details.

## TIBIA Membership Costs & Criteria & Benefits

The intrinsic value of TIBIA membership rests on giving the member status as a contributing part of an organization helping to extend and disseminate the findings and applications of the natural science of behavior, behaviorology, for the benefit of humanity. The levels of TIBIA membership include one "free" level and four paid levels, which have increasing amounts of basic benefits. The four annual paid membership levels are Student, Affiliate, Associate, and Advocate. The Student and Affiliate are non-voting categories, and the Associate and Advocate are voting categories. All new members are admitted provisionally to TIBIA at the appropriate membership level. Advocate members consider each provisional member and then vote on whether to elect each provisional member to the full status of her or his membership level or to accept the provisional member at a different membership level. Here are all the membership levels and their criteria and basic benefits (with dues details under TIBIA Membership Cost Details on the application-form page):

**Free-online membership.** Online visitors receive access (a) to past *Behaviorology Today* and *Journal of Behaviorology* articles and issues, (b) to accumulating news items, (c) to Institute information regarding TIBI Certificates and course syllabi, (d) to selected links of other organizations, and (e) to other science and organization features.

**\$20** Behaviorology Student membership (requires completed paper application, co-signed by department chair or advisor, and annual dues payment). Admission to TIBIA in the Student membership category is open to all undergraduate or graduate students in behaviorology or in an acceptably appropriate area. Benefits include *all* those from the previous membership level plus these: (a) a subscription to—and thus immediate postal delivery of—each new paper-printed issue of *Journal of Behaviorology* (ISSN 1536-6669), (b) access to special organizational activities (e.g., invitations to attend and participate in, and present at, TIBI conferences, conventions, workshops, etc.) and (c) access to available TIBIA member contact information.

**\$40** Affiliate membership (requires completed paper application and annual dues payment). Admission to TIBIA in the Affiliate membership category is open to all who wish to follow disciplinary developments, maintain contact with the organization, receive its publications, and participate in its activities, but who are neither

students nor professional behaviorologists. Benefits include *all* those from the previous levels plus these: Access both to additional activity options at the interface of their interests and behaviorology, and to advanced membership levels for those acquiring the additional qualifications that come from pursuing behaviorology academic training. On the basis of having earned an appropriate degree or TIBI Certificate, Affiliate members may apply for, or be invited to, Associate membership.

\$60 Associate membership (requires completed paper application and annual dues payment). This level is only available to qualifying individuals. Admission to TIBIA in the Associate membership category is open to all who are not students, who document a behaviorological repertoire at or above the masters level (such as by attaining a masters-level TIBI Certificate or a masters degree in behaviorology or in an accepted area) and who maintain a good record-often typical of "early-career" professionals-of professional activities or accomplishments of a behaviorological nature that support the integrity of the organized, independent discipline of behaviorology including its organizational manifestations such as TIBI and TIBIA. Benefits include *all* those from the previous levels plus TIBIA voting rights, and access to contributing by accepting appointment to a TIBIA or TIBI position of interest. On the basis of documenting a behaviorological repertoire at the doctoral level, an Associate member may apply for, or be invited to, Advocate membership.

\$80 Advocate membership (requires completed paper application and annual dues payment). This level is only available to qualifying individuals. Admission to TIBIA in the Advocate membership category is open to all who are not students, who document a behaviorological repertoire at the doctoral level (such as by attaining a doctoral-level TIBI Certificate or a doctoral degree in behaviorology or in an accepted area), who maintain a good record of professional activities or accomplishments of a behaviorological nature, and who demonstrate a significant history-usually typical for experienced professionals-of work supporting the integrity of the organized, independent discipline of behaviorology including its organizational manifestations such as TIBI and TIBIA. Benefits include *all* those from the previous levels plus access to contributing by accepting election to a TIBIA or TIBI position of interest.

*Life membership.* At its February 2020 Annual Meeting, the TIBI Board passed a motion enabling *Life Memberships.* The criteria and requirements appear in the Minutes to that meeting. If you are interested, contact the TIBI Treasurer for details.

## TIBIA Membership Cost Details

Establishing the annual dues structure for the different membership categories takes partially into account, by means of percentages of annual income, the differences in income levels and currency values among the world's various countries and economies. Thus, the annual dues for each membership (or other) category are:

### CATEGORY DUES (in US dollars)\*

Student	The lesser of 0.1% of
member	annual income, or \$20.00

Affiliate	The lesser of 0.2% of
member	annual income, or \$40.oo
Associate	The lesser of 0.3% of
member	annual income, or \$60.00
Advocate	The lesser of 0.4% of
member	annual income, or \$80.00

#### Member of Board of Directors:

The lesser of 0.6% of annual income, or \$300.00

\*Minimums: \$20 Board Member; \$10 others

Retired Associate, Advocate, or Board Members	:
50% less)	

Application	FORM	
KNOWLEDGEMENT BU	Γ IS NOT REQUIRED.)	
Mr. Chris Cryer TIBIA Treasurer 406 North Meadow Drive Ogdensburg NY 13669 USA	Check if applies: Contribution: Subscriptions:* Back issues:** ?* Vol, # ?* Vol, #	
Membership (category):		
Amount enclosed: US\$		
Home Address:		
Home Phone #:		
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# TIBI/TIBIA Purposes\*

 $\mathcal{T}_{\text{IBI},\text{ as a non-profit educational corporation, is}}$ dedicated to many concerns. TIBI is dedicated to teaching behaviorology, especially to those who do not have university behaviorology departments or programs available to them. TIBI is also dedicated to expanding and disseminating the behaviorological literature at least through the fully peer-reviewed Journal of Behaviorology (originally called TIBI News Time and then Behaviorology *Today*) with editors being appointed by the TIBI Board of Directors, usually from among the TIBIA Advocate members. TIBI is a professional organization also dedicated to organizing behaviorological scientists and practitioners into an association (The International Behaviorology Institute Association—TIBIA) so they can engage in coordinated activities that carry out the purposes of TIBI/TIBIA. These activities include (a) encouraging and assisting members to host visiting scholars who are studying behaviorology as well as holding conventions and conferences; (b) enabling TIBI faculty to arrange or provide training for behaviorology students; and (c) providing TIBI certificates to students who successfully complete specified behaviorology curriculum requirements). And TIBI is a professional organization dedicated to representing and developing the philosophical, conceptual, analytical, experimental, and technological components of the discipline of behaviorology, the comprehensive natural science discipline of the functional relations between behavior and independent variables including determinants from the environment, both socio-cultural and physical, as well as determinants from the biological history of the species. Therefore, recognizing that behaviorology's principles and contributions are generally relevant to all cultures and species, the purposes of TIBI and TIBIA are:

A. to foster the philosophy of science known as radical behaviorism [AKA behavioral naturalism];

- B. to nurture experimental and applied research analyzing the effects of physical, biological, behavioral, and cultural variables on the behavior of organisms, with selection by consequences being an important causal mode relating these variables at the different levels of organization in the life sciences;
- c. to extend technological application of behaviorological research results to areas of human concern;
- D. to interpret, consistent with scientific foundations, complex behavioral relations;
- E. to support methodologies relevant to the scientific analysis, interpretation, and change of both behavior and its relations with other events;
- F. to sustain scientific study in diverse specialized areas of behaviorological phenomena;
- G. to integrate the concepts, data, and technologies of the discipline's various sub-fields;
- н. to develop a verbal community of behaviorologists;
- to assist programs and departments of behaviorology to teach the philosophical foundations, scientific analyses and methodologies, and technological extensions of the discipline;
- J. to promote a scientific "Behavior Literacy" graduation requirement of appropriate content and depth at all levels of educational institutions from kindergarten through university;
- K. to encourage the full use of behaviorology as the essential scientific foundation for behavior related work within all fields of human affairs;
- L. to cooperate on mutually important concerns with other humanistic and scientific disciplines and technological fields where their members pursue interests overlapping those of behaviorologists; and
- M. to communicate to the general public the importance of the behaviorological perspective for the development, well-being, and survival of humankind.

\*Adapted from the 2017–updated TIBI Bylaws. 🕫

# Another Free–Access Behaviorology Website

Due to pandemic-related delays, by the beginning of 2023, behaviorologists, friends, and everyone may finally be able to access freely another behavior-related website, <u>www.BehaviorInfo.com</u>. Primarily, and initially, this website features Stephen Ledoux's sets of newspaper columns about behaviorology so that more people can gain additional familiarity with this natural science. Humanity needs this, because human behavior causes global problems and changes in human behavior help solve these problems. The first set of columns, on basics, leads into the second set, on scientific answers to ancient human questions (e.g., on values, rights, ethics, morals, language, consciousness, personhood, life, death, reality, and even evolutions and robotics). Then may come columns by other authors. (Interested in writing some? Contact Ledoux at 26 Timber Ridge Road, Los Alamos, NM 87544.)



Behaviorology is an independently organized discipline featuring the natural science of behavior. Behaviorologists study the functional relations between behavior and its independent variables in the behavior-determining environment. Behaviorological accounts are based on the behavioral capacity of the species, the personal history of the behaving organism, and the current physical and social environment in which behavior occurs. Behaviorologists discover the natural laws governing behavior. They then develop beneficial behaviorological-engineering technologies applicable to behaviorrelated concerns in all fields including child rearing, education, employment, entertainment, government, law, marketing, medicine, and self-management.

Behaviorology features strictly natural accounts for behavioral events. In this way behaviorology differs from disciplines that entertain fundamentally superstitious assumptions about humans and their behavior. Behaviorology excludes the mystical notion of a rather spontaneous origination of behavior by the willful action of ethereal, body-dwelling agents connoted by such terms as *mind*, *psyche, self, muse*, or even pronouns like *I, me*, and *you*.

As part of the organizational structure of the independent natural science of behavior, *The International Behaviorology Institute* (tibi), a nonprofit organization, exists (a) to arrange professional activities for behaviorologists and supportive others, and (b) to focus behaviorological philosophy and science on a broad range of cultural concerns. And *Journal of Behaviorology* is the referred journal of the Institute. Journal authors write on the full range of disciplinary topics including history, philosophy, concepts, principles, and experimental and applied research. Join us and support bringing the benefits of behaviorology to humanity. (Contributions to tibi or tibia—the professional organization arm of tibi—are tax deductible.)

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### Journal of Behaviorology

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