TEACHING CULTURAL DESIGN: SHAPING NEW BEHAVIORISTS

Mark A. Mattaini
Columbia University School of Social Work

ABSTRACT: One of the central goals of Walden Fellowship, Inc. is to interest new people in the science of behavior, how it can contribute to quality of life, and in becoming involved in related activities. An important group to reach in these efforts, as Skinner clarified in *Walden Two* (1948), are students and recent graduates who may be searching for ways that they can make a difference. First, the author discusses first efforts to interest graduate social work students in cultural design through the development of a new course in community organization and community practice, then presents examples of work produced in the course, and lastly describes initial successes in recruiting new behaviorists through the course. KEY WORDS: Cultural design, teaching behavior analysis, contingency diagrams.

If behavior analysis and cultural design are going to have a major impact on quality of life and survival for the human and other species, recruiting new members into the behavior analytic culture, and transmitting the practices of that culture, is a high priority. This is the primary objective of the Education Board of the Association for Behavior Analysis: International, and in our own smaller way it is a primary objective of Walden Fellowship. The most accessible population from which new members can be drawn are students, or those who have recently completed their studies. These are persons, as noted in *Walden Two* (Skinner, 1948), who have available surplus behavior, and who are often in "cultural transition"—having left home, literally or figuratively, and not yet completely embedded in the matrix of interlocking cultural entities that will shape their future lives. In fact, the majority of Walden Fellowship members, and nearly all of those active in the cultural design task forces and consultation services, are students or former students of two university professors, one in social work, the other in special education.

Although there may be many opportunities to recruit the next generation of behavior analysts, university classes are probably the most common. Doing so in schools of social work, none of which are to any significant degree behavior analytic, is challenging, however. Accredited social work programs must have courses that provide content on Human Behavior in the Social Environment, but these courses are, in most schools, deeply rooted in a psychodynamic, self-psychology, and object-relations culture. Although there has been some expansion in the teaching of behavioral methods, many clinical practice faculty have an extensive investment in

AUTHOR'S NOTE:

Inquiries may be directed to the author at Columbia University School of Social Work, 622 West 113th Street, New York, NY 10025, or by e-mail to <u>mattaini@columbia.edu</u>

other personality theories, which are often presented as the royal road, although with recognition that one might occasionally use behavioral approaches with a simple phobia or bedwetting. A few schools have developed cognitive-behavioral tracks, but over the long run these often remain marginalized—overall, a difficult culture to modify, given the stability of the contingency interlocks.

One way into the system, however, may be to do it through community practice. Community practice/community organization is an area of practice, mostly taught on an elective basis, that commands significant respect among students. Interest in advocacy and political activism is currently rising among social work students. Harry Specht, the late social work scholar and respected dean at Berkeley, argued that the mission of social work is to create healthy communities, and that this is how to make healthy people; psychotherapy for Specht is a distraction that is not core to the profession (Specht, 1990; Specht & Courtney, 1994). Community practice is again becoming very popular with students, and is an area with which many faculty are largely unfamiliar, sometimes uncomfortable, and in which they are most likely not to object to innovation.

During the past semester, I had the opportunity to "claim" a course entitled "Social Work in the Neighborhoods", traditionally a grass-roots community organizing course, recently fallen on hard times. A once dynamic course had faded into a tutorial taught by an adjunct faculty member to one or two students, perhaps consistent with the decline of interest in social action during the '80s. Schools of social work are professional schools, in which most of the curriculum is tightly sequenced, in which the faculty culture supports only relatively modest innovation to ensure basic consistency in content. Electives, however, are relatively wide open. My interest was to claim this elective course, and to shape it into a course on cultural design.

One way to teach behavior analysis or, more essentially, one effective way people learn behavior analysis may be for students to immerse themselves in the practice, and immediately begin dealing with real-world problems in which they have strong interest. With adequate coaching and guidance around the technical aspects, and the need to develop effective solutions, persons with limited initial expertise can quickly learn relatively high-level behavior analytic, and even cultural analytic skills. This was the basic approach taken in the course.

The Course

Participants were advanced MSW students, most in their last semester before graduation. The group was highly self-selected, consisting generally of persons with strong interests in advocacy and organizing. A few had taken one or more courses from me previously, but all had limited, and most, no behavior analytic exposure or sophistication. The maximum enrollment of 25 was quickly reached, a waiting list was established, and I took in two auditors as well.

To the extent possible with that many students, the course was handled as a "structured seminar" (Malott, 1993). The first hour consisted of discussions of the readings assigned for the week; attending and contributing meaningfully constituted half the course grade, and students generally completed the readings every week

(perhaps in part to avoid embarrassment if they could not respond when I asked them to comment during discussions, but they also were clearly engaged by the material). Occasionally, I lectured briefly to clarify theoretical or conceptual material, but not often. The second hour usually involved exercises, including small group assignments, role-play exercises to examine neighborhood issues, effective and ineffective meeting strategies, and so forth. I also invited a technical expert on NYC neighborhoods to present for half of one session, and turned one session over to a panel of indigenous leaders from a neighborhood with which I am currently working. This was, overall, probably the liveliest and most challenging course (for everyone) that I have ever taught, and the students worked very hard.

A shaping process is clear from the syllabus. Early sessions focused on the basic organizing and community literature, ranging from Alinsky to Stephen Fawcett. I gradually began weaving in the science of behavior and cultural analysis, drawing from Fawcett and his colleagues (Fawcett, 1991; Fawcett, Mathews, & Fletcher, 1980), Biglan, Metzler and Ary (1994) and Mattaini (1993a, 1993b). I made my theoretical persuasion clear, and indicated that I wanted students to learn how to apply it, but that they were under no pressure to ultimately "accept it." Rather, I simply said that I felt an obligation to share with them an approach that I believed had a lot to offer to "a practice in search of theory" (Taylor & Roberts, 1985, p. 5), as community organizing has accurately been labeled.

Our discussions included ways of more clearly specifying and making theoretical sense of traditional community organizing. For example, some (but not all) of Alinsky's work places heavy emphasis on aversive control; Gandhian non-violent resistance often involves extinction, and so forth. I personally believe we have underemphasized the potential for strategies rooted in positive reinforcement, and in that context presented some of Sidman's (1989) work.

The overall goal was for students to think about community processes in terms of cultural practices in Skinner's sense—viewing a "culture" as an interlocking set of social contingencies maintained by a group. From this perspective, families, peer networks, street gangs, neighborhoods, the MTV generation, residents of a building or a city can all be seen as interlocking cultural entities. My goal was for students to be able to identify:

- practices to be increased, and
- practices to be decreased, along with
- the interlocking contingencies that needed to be modified,
- to achieve improved aggregate outcomes.

The Use of Analytic Tools

Graphic tools (contingency diagrams, practice diagrams, behavioral ecomaps) are valuable and effective teaching tools (Mattaini, 1995a) because images have tremendous power to capture the realities of complex behavioral and cultural phenomena (Mattaini, 1993b, 1995b; Mattaini, under review). We, therefore, made extensive use of these tools in the classroom, and in student assignments. For example, expansions of Malott's (1992) contingency diagrams (Malott, Whaley, & Malott, 1993) can be useful for examining why teachers within a school culture often

use aversives rather than reinforcement in the classroom, why many welfare reform programs are unlikely to achieve the desired outcomes, or how a neighborhood is taken over by drug dealers.

In cultural analysis, we are often interested in "scenes" involving multiple behaviors of multiple actors who are involved in interlocking contingencies. Practice diagrams, which allow one to collapse and aggregate contingency diagrams and to depict contingency interlocks, allow these complexities to emerge in interconnected and transactional ways (Mattaini, under review). For example, Figure 1 is a practice diagram, depicting how young boys may be inducted into a culture of street violence.

.Boundary of the Scene

Practice:
   walks to school

Acton victim

Antecedents:
• *Rules from home*
• *Rules from school*
• *Establishing operations provided by school*

Consequences:
• *Ran forcers provided by family*
• *Reinforcers provided teachers, peers*

Practice:
   act of violence

Actor: young boy

Antecedents:
• *Presence of victim,*
• *Presence of peers*
* *Models (peer, family, media)*
* *Eos (e.g., deprivation)*

Consequences:
• *Peer reinforcement*
* *Relief from aversive peer pressure*

Practice:
   provides rules, reinforcers

Actor: Older youth

Antecedents:
• *Presence of victim, peers*
• *Models (peer, family, media)*
• *EOs (e.g. Deprivation, aversives, substance use)*

Consequences:
• *mutual reinforcement from other peers*
• *'respect on the street*

I

Practice:
   provide rules, reinforcers for attendance

Actor: family member

Practice:
   provide rules, reinforcers for attendance

Actor: teacher

v

Practice:
   model violent

family member

Practice:
   provide respect, other social reinforcers
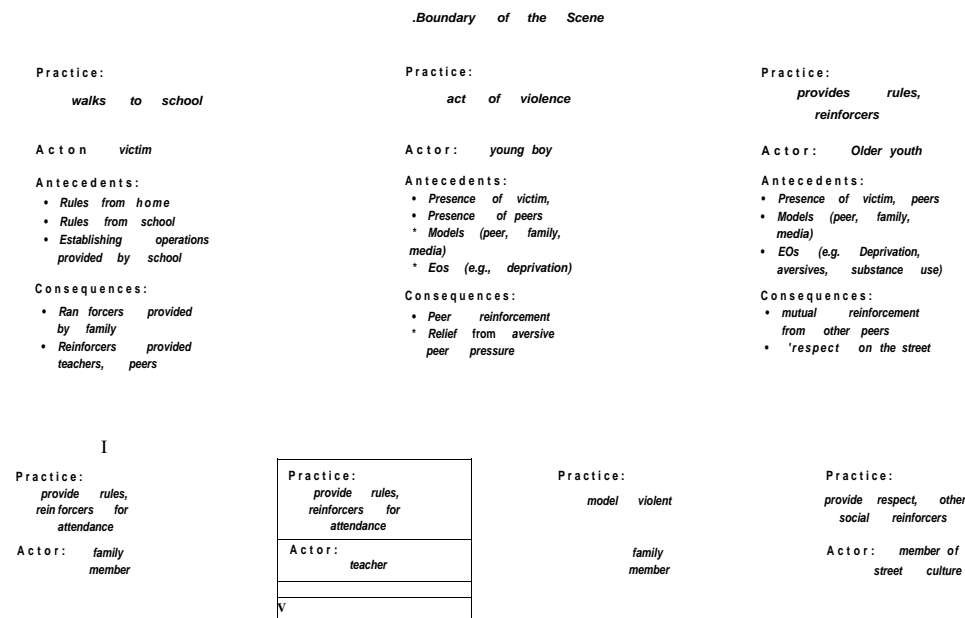
Actor: member of street culture

Figure 1: A simplified cultural practice diagram. Note that to be complete, further practices and contingency interlocks shaping the behavior of extra-scene actors would also be depicted.

(For simplicity of presentation, not all relevant practices, antecedents, postcedents, and interlocks among them are shown here.) In analyzing practices and scenes, one commonly needs to examine both events and conditions within the scene, and those that operate "at a distance" via rules.

I assigned students in the course, as one of several assignments completed based on actual work in a selected neighborhood, to prepare one or more contingency or practice diagrams. The diagrams were to capture the interlocking contingencies within which positive or negative practices are embedded. I encouraged students to do this in pairs, or groups of three if they wished, which proved useful for those who did so. (Those who worked in groups tended to develop more complex diagrams.)

The Results

Unedited samples of student work from the course are depicted in Figures 2, 3

and 4. As the reader will note, there are ambiguities in the diagrams, as one might expect from students with quite limited previous exposure to behavior analysis just over halfway through the course. Nevertheless, substantial analytic effort and sophistication emerge.

For example, in Figure 2, the target behaviors clearly need to be more tightly specified, and some technical refinements would improve the analysis. The central concepts of connections among behavior and contingencies, of multiple consequences, some requiring rules to bridge temporal gaps, and of the possibility of analyzing whatever practices were of interest to the student, however, are clearly well established here.
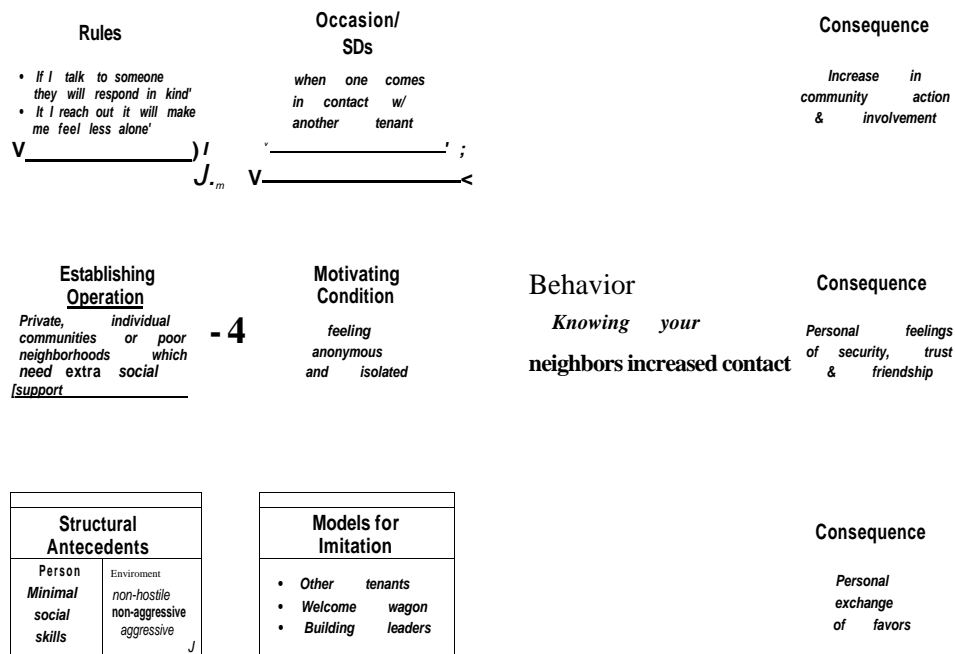
Rules

Occasion/ SDs

Consequence

- *If I talk to someone they will respond in kind'*
- *It I reach out it will make me feel less alone'*

when one comes in contact w/ another tenant

Increase in community action & involvement

Establishing Operation

Motivating Condition

Behavior

Consequence

Private, individual communities or poor neighborhoods which need extra social [support

- 4

feeling anonymous and isolated

Knowing your **neighbors increased contact**

Personal feelings of security, trust & friendship

Structural Antecedents

Models for Imitation

Consequence

Person	Enviroment
Minimal social skills	*non-hostile* **non-aggressive** *aggressive*

- *Other tenants*
- *Welcome wagon*
- *Building leaders*

Personal exchange of favors

Figure 2: Student contingency diagram depicting first efforts to diagram a simple cultural practice. (Source: Christina Yoo)

This diagram proved extremely useful in sparking student discussion, and in surfacing crucial questions about exactly what behaviors were of interest, how one might begin to introduce such new practices, and exactly how the contingencies depicted affected the desired practices.

Figure 3 is a diagram prepared by a student who had, by this point, become involved in Walden Fellowship activities, and who was chairing the science subcommittee of the Diversity Task Force (see Mattaini, Twyman, Chin & Spencer, under review). The level of analytic refinement demonstrated here is impressive.
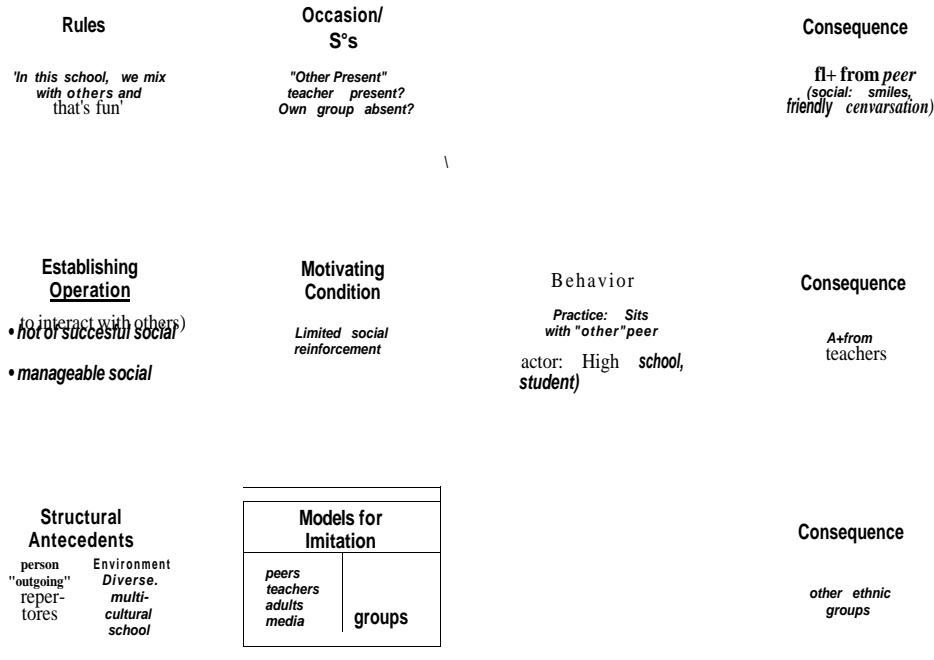
Rules	Occasion/ S°s		Consequence
'In this school, we mix with others and that's fun'	"Other Present" teacher present? Own group absent?		**fl+ from** *peer* *(social: smiles,* friendly *cenvarsation)*

\

Establishing Operation	Motivating Condition	Behavior	Consequence
to interact with others) • *hot or succesful social* • *manageable social*	Limited social reinforcement	*Practice: Sits with* "other" *peer* actor: High *school, student)*	*A+from* teachers

Structural Antecedents	Models for Imitation		Consequence
person "outgoing" reper- tores	Environment Diverse. multi- cultural school	peers teachers adults media groups	other ethnic groups

Figure 3: Contingency diagram depicting antecedents and consequences associated with sitting with a peer from another racial group in an informal school setting. (Source: Nancy L. Spencer)

Finally, Figure 4 (opposite page) shows a practice diagram produced by a student in the course. (Some of the practice diagrams produced were large, multipage documents depicting complex interlocks among a dozen or more practices and multiple classes of actors.) The diagram itself is interesting; even more important, however, is the way that this diagram initiated thoughtful, active discussion of racist practices and other biases, and what steps would be required to change those practices. This was, of course, precisely the purpose of the course.

The errors students made appeared no more serious than in a standard basic course, or even in much published work (e.g., confusing S^{D}s and EOs). Putting student work on overheads and critiquing it as a class group produced a high level of involvement and mutual challenge. Some students integrated this material well into the final major paper; others did not, and this is an area I am targeting for improvement next year. These exercises threw us all quickly into the middle of substantial complexity. This is similar to the "case method" recently recommended by Dardig (1995) in her paper which appeared in *The Behavior Analyst:* Rather than beginning with "the basics," an effective teaching strategy may be to begin with what students care about, and to gradually shape increasingly sophisticated behavior analysis through the process.

Practice:

Walks   down   sidewalk

Actor: *Black   teenager*

Antecedents:
- *Experience   of   white   women's   (A   others')   prejudicial   bx's*
- *Support   of   family   and peers*
- *Belief in   right   to   walk   down   the   sidewalk*

Consequences:
- *Gets   to   where   he   wants   to   go   Realforms   right   to go where   he   wants*

Practice:

Walks   down   sidewalk

Actor: *Black   teenager*

Antecedents:
- *Experience   of   white   women's   (&   others')   prejudicial   bx's*
- *Support   of   family   and peers*
- *Belief in   right   to   walk   down   the   sidewalk*

Consequences:
- *Gets   to   where   he   wants   to   go*
- *Realforms   right   to go where   he   wants*

1

Practice: *Locks car door*	**Practice:** *takes no action (does not lock car door)*
Actor:White *woman in car*	**Actor:** *Peer (white woman in car)*
Antecedents: • *Stereotype of black youth as violent, criminal* • *Experience of increasing crime* • *Support of dominant culture, family, peers*	**Antecedents:** • *Knowledge of black youths' damaging experiences of racism* • *Interactions w/black youth in 'non-threatening' contexts* • *Social support for challenging 'norms'*
Consequences: • *Feels safer* • *Nothing happens ('avoids' attack)* • *Experiences control over situation* • *Cognitive set maintained*	**Consequences:** • *Nothing happens (no attack)* • *Relief of social and internal pressure to challenge racism* • *Comfort with peer in jeopardy*

in n'hood

Figure 4: Student-prepared cultural practice diagram. (Source: Michelle Billies)

There was no significant resistance to the diagramming assignment, or to the behavior analytic perspective offered in general. Yes, many questions were asked about how to apply the science of behavior to this or that issue, but however challenging, they were always thoughtful and respectful. In part, this may have been because the instructor was seen as knowledgable and reliable, and in part because the culture intentionally and explicitly established in the class included substantial reinforcement for thoughtful analysis and mutual respect. But probably most importantly, there was no resistance because students found the approach meaningful and helpful for understanding and working with problems about which they were concerned. On student evaluations (on a scale of 1-5), students rated the course content at 4.5, while the school average for all courses offered during the term was 4.2 (standard deviations not provided). In narrative comments, there were none critical of the theoretical framework, and several positive comments about the analytic as opposed to merely descriptive approach taken.

My goal in this course was to open students' eyes to the elegance and universal applicability of the science of behavior to human affairs. At least three of the students have become heavily involved with Walden Fellowship, and others indicate they would like to do so. Most students learned at least the basics of cultural analysis

as an approach, and achieved a new respect for its potential. While there is much more do to, and there are many ways the course will be refined for the coming year, these early results suggest that teaching cultural design may be an effective means of recruiting new members to the behavior analytic culture.

REFERENCES

Biglan, A., Metzler, C. W., & Ary, D. V. (1994). Increasing the prevalence of successful children: The case for community intervention research. *The Behavior Analyst, 17*, 335-351.

Dardig, J. C. (1995). I'd been doing it wrong for so long it looked right to me: Using the case method to teach introduction to applied behavior analysis. *The Behavior Analyst, 1*8, 161-166.

Fawcett, S. B. (1991). Some values guiding community research and action. *Journal of Applied Behavior Analysis,* 24, 621-636. http://dx.doi.org/10.1901/jaba.1991.24-621

Fawcett, S. B., Mathews, R. M., & Fletcher, R. K. (1980). Some promising dimensions of behavioral community technology. *Journal of Applied Behavior Analysis,* 13, 505-518. http://dx.doi.org/10.1901/jaba.1980.13-505

Malott, R. W. (1992). Saving the world with contingency diagraming. *The ABA Newsletter,* 15(1), 45.

Malott, R. W. (1993). *Behavior analysis as a world view and lifestyle* (2nd ed.) Kalamazoo, MI: Behaviordelia.

Malott, R. W., Whaley, D. L., & Malott, M. E. (1993). *Elementary principles of behavior* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Mattaini, M. A. (1993a). Behavior analysis in community practice. *Research on Social Work Practice,* 3, 420-447. http://dx.doi.org/10.1177/104973159300300405

Mattaini, M. A. (1993b). *More than a thousand words: Graphics for clinical practice.* Washington, D.C.: NASW Press.

Mattaini, M. A. (1995a). Contingency diagrams as teaching tools. *The Behavior Analyst,* 18, 93-98.

Mattaini, M. A. (1995b). Visualizing social work practice with children and families. *Early Child Development and Care,* 106, 59-74. http://dx.doi.org/10.1080/0300443951060107

Mattaini, M. A. (under review). *Diagramming cultural practices.*

Mattaini, M. A., Twyman, J. S., Chin, W., & Spencer, N. (under review). *Cultural Design: Walden Fellowship Task Forces.*

Sidman, M. (1989). *Coercion and its fallout.* Boston: Authors Cooperative.

Skinner, B. F. (1948). *Walden Two.* New York: MacMillan.

Specht, H. (1990). Social work and the popular psychotherapies. *Social Service Review,* 64, 345-357. http://dx.doi.org/10.1086/603775

Specht, H., & Courtney, M. (1994). *Unfaithful angels: How social work has abandoned its mission.* New York: Free Press.

Taylor, S. H., & Roberts, R. W. (1985). The fluidity of practice theory: An overview. In S. H. Taylor, & R. W. Roberts (Eds.), *Theory and practice of community social work* (pp. 3-29). New York: Columbia.