

What Can Behavior Analysis Learn From the Aversives Controversy?

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The paper argues that behavior analysis may have contributed to the aversives controversy in a number of ways. The role that the field has played and the lessons that may be learned are discussed in the areas of research, training, and politics.

Key words: aversives controversy, aversive consequences, punishment, professional training, developmental disabilities, retardation

HISTORICAL CONTEXT

When the fledgling field of behavior analysis began to venture outside of the animal laboratory in the late 1950's and early 1960's, it stretched its hesitant wings with populations whose care was generally ignored by the culture. In those days before the courts had begun to examine the constitutional rights of mentally ill and retarded individuals, behavior analysts were free to develop their laboratory-based principles into treatment procedures with remarkably little interference from the bureaucracy. Even the other helping professions (psychiatry and the growing field of clinical psychology) provided only modest barriers. They were already growing frustrated by the clinical challenges presented by chronic psychotics and profoundly retarded clients. As a result, the field of behavior analysis was given relatively free reign to develop not only its technology, but its political and bureaucratic prowess in these service delivery areas.

It is now 30 years later. Whether squeezed out by the increasingly powerful profession of clinical psychology or having abandoned this population in the face of the modest efficacy of its early treatment methods, behavior analysis plays a fairly limited role in the care of traditional mentally ill populations, although a distant cousin called behavior

therapy still suggests that the environment might be important. Behavior analysis now plays a substantial role in the care of the developmentally disabled however, by virtue of a good match between its techniques and the population's treatment needs, as well as by default by other professions. Though often poorly implemented by paraprofessionals, behavioral techniques now constitute the foundation of a generally accepted treatment model for the care of this population, and some behavior analysts are even well integrated into the power structure of the developmental disability service delivery and professional bureaucracies. In summary, although behavior analysis is hardly in command, it has certainly had ample opportunity over many years to influence policy-making and service delivery at both professional and regulatory levels.

THE AVERSIVES CONTROVERSY

The aversives controversy is a collection of disagreements among a variety of interested parties concerning the techniques used to decrease undesirable behavior, mainly with developmentally disabled individuals. The disagreements center around the use of aversive stimuli as programmatic consequences, with some individuals arguing that some (or even all) kinds of aversive events should not be used and that effective, non-aversive alternatives are available and others saying that such aversive stimuli should not be eliminated as treatment options

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because they are sometimes necessary. However, it is also a fight about the philosophy underlying behavioral services for this and other populations, about how treatment decisions are made, and about familiar issues of professional territoriality.

Although the roots of this brouhaha can be traced to earlier decades (Schroeder, 1990), it was during the 1980's that attention became dramatically focused on the use of aversive stimuli as programmed consequences for undesirable behavior. A series of related events may have been significant, including position statements by special interest organizations, a highly publicized legal case concerning punishment-based treatment programs, a device designed to automate punishment of certain self-injurious behaviors using electric shock as a consequence, and various debates and conferences. Unfortunately, the social and political style that has characterized the controversy has itself become one of its more painful issues (Schroeder & Schroeder, 1989).

HAS BEHAVIOR ANALYSIS CONTRIBUTED TO THE CONTROVERSY?

The ease and rapidity with which these issues have developed suggest that it has a broader foundation than a few precipitating incidents can provide (Schroeder, 1990). Although the aversives controversy seems to be mainly about the use of certain types of punishing consequences, it may have more to do with how treatment procedures are selected, which is at the heart of the behavioral treatment model. Arguments against the use of aversive consequences also directly challenge the applied behavioral literature, claiming that it is generally misleading regarding both acquisition and reduction procedures (LaVigna & Donnellan, 1986). With such concerns, the emergence of the aversives issue suggests that the behavioral treatment model in the field of developmental disabilities has been leading a more precarious existence than many may have suspected.

Given the considerable involvement of behavior analysis in the retardation industry for the past three decades, it seems reasonable to wonder if the field has unknowingly played some role in this controversy's development. Can errors of omission or commission be retrospectively identified that might have facilitated the emergence and growth of this issue? Are there lessons that can be learned from these recent events that might improve the effectiveness with which we apply our philosophy, methods, and technology to this or other fields?

There is, in fact, some evidence that the aversives controversy is partly the result of various general characteristics of the field of behavior analysis and how it has functioned in the area of developmental disabilities in particular. If we can identify the field's role in the etiology of this problem, behavior analysis may benefit from this experience by learning how to achieve its service delivery goals more effectively. The arguments about how behavior analysis may have contributed to the aversives controversy and how it can avoid similar problems in other applied areas can be organized into three general topics: research, training, and politics.

Research

First, applied researchers seem to have shown relatively little thematic interest in investigating behavioral characteristics and pathologies that are common in the developmentally disabled population. The dominant theme in the applied behavioral literature instead concerns treatment procedures. Although we can point with pride to at least some experimental studies of behavioral phenomena (e.g., the literature concerning stimulus overselectivity, as reviewed by Lovaas, Koegel, and Schreibman, 1979), our applied literature has thus far contributed fairly little to improving our understanding of such behavioral phenomena as self-stimulatory behavior and self-injurious behavior. As a result, we have probably not earned a reputation in the field of developmental disabilities as a science that can make breakthrough

discoveries about the causes of particular patterns of behavior that in turn ameliorate long-standing clinical challenges. A more impressive scientific track record of this sort would probably be helpful in discouraging disputes concerning our technology.

Even though the behavioral literature concerning developmental disabilities has some thematic and analytical research literatures of high quality (for instance, the work of Lovaas and others with autistic children), they tend to be strongly treatment oriented. Even discoveries of considerable promise in understanding basic behavioral processes such as stimulus overselectivity have been pursued mainly for their immediate practical benefits, rather than for their scientific potential in better understanding behavior in general or even particular areas of pathology (e.g., Schover & Newsome, 1976; Schreibman, Koegel, & Craig, 1977). Of course, there is nothing at all inappropriate about such treatment interests, but these clinical priorities have not been matched by a well developed scientific thrust that can earn behavior analysis a measure of valuable respect by others in the field of developmental disabilities.

Second, our applied research literature has instead primarily focused on demonstrating the efficacy of multi-procedure behavior change packages. However, instead of analyzing procedures in ways that will make them more effective and efficient, the literature has generally tended to emphasize the development of new procedures and new applications for existing procedures. Therefore, if there has been any overall improvement over the years in the effectiveness of behavior reduction procedures, it may have been more the result of improvements in dissemination of the technology than the result of research-based improvements in our knowledge about the procedures themselves.

As a consequence, behavior analysis may not have reaped the benefits that might accrue to a discipline that has clearly shown significant improvement in its technological capabilities. Were there such a track record, others might

then be willing to acknowledge that although the technology warranted further development, there was probably no better alternative that could reasonably be turned to (such as gentle teaching, for instance; see McGee, Menolascino, Hobbs, & Menousek, 1987). One of the arguments that has emerged from the aversives controversy is that there are alternative ways of decreasing undesirable behavior that are generically as effective and broadly applicable as punishment procedures (LaVigna & Donnellan, 1986). Although this contention is now prompting research that could eventually expand our treatment repertory, such efforts could have originated much earlier from within a more probing applied research literature.

Third, the shortcomings of the general applied behavioral literature seem especially true in its rather weak punishment literature. Punishment procedures have always received less experimental attention than reinforcement techniques (Johnston, 1972), which may be appropriate for some reasons. However, because neither literature has strongly focused on improving efficacy and efficiency, the punishment literature remains proportionally weaker than its reinforcement sibling.

As a result, there is much that is not known about accepted techniques, and much of what is assumed or accepted may not be scientifically defensible. For example, the timeout literature is still unclear about such fundamental issues as the role of the time-in environment, the duration of timeout, and the procedure's appropriateness for behaviors that can be emitted during timeout (Brantner & Doherty, 1984). Misled by its seminal study (Foxy & Azrin, 1973), the overcorrection literature showed serious misunderstandings of how the procedure really worked until the excellent chapter by Foxy and Bechtel (1984) was published more than ten years later. As still another example, the importance of reinforcing alternative, desirable behaviors as a way of enhancing the effectiveness of punishment procedures has been examined mainly in early animal experiments. In

short, it can hardly be argued that the punishment literature offers practitioners clear, research-based directions about the most effective ways of using punishment so that the need for it can be minimized.

Fourth, even less is known about ways of decreasing behavior that do not involve punishment. Perhaps behavior analysts have been poorly motivated to focus on alternatives because punishment procedures can be satisfactorily effective when implemented correctly. Perhaps the field's historical focus on changing behavior by arranging powerful consequences has discouraged consideration of managing undesirable behavior by identifying and controlling causal variables or by analyzing the role of antecedent events. Whatever the influences on the directions of the behavior reduction literature, it has certainly not given thorough attention to techniques that do not involve aversive consequences. Even a procedure like differential reinforcement of other behavior (DRO), which accommodates this concern and has indeed received meaningful experimental attention, has in routine practice been distorted into ways of getting staff to pay some attention to clients and is often used in an inappropriate manner. Thus, behavior analysis is not well prepared to respond to concerns about the use of aversive consequences by pointing to a well developed literature that develops, evaluates, and applies a variety of other ways of dealing with problem behavior.

How can we improve our applied research efforts so that we can not only overcome these weaknesses in the area of developmental disabilities but avoid comparable problems in other areas? The more immediate remedies are obvious. We need to work toward an applied research literature that emphasizes thematic, analytical studies aimed at (a) understanding behavioral pathology common in the developmentally disabled (or other) population(s), (b) improving existing treatment procedures, and (c) developing techniques for managing behavior using culturally palatable consequences.

In order to create the context for this

new focus, however, the field might benefit from redefining the conception of applied behavior analysis that emerges from its literature. In particular, training programs need to accommodate an important distinction between applied research and applied practice. At present, graduate training often tends to dichotomize students into either basic or applied areas, but we fail to recognize a further distinction that is routine among other natural science/technology fields such as medicine and engineering. What we do not yet seem to appreciate is the importance of selecting and training individuals for either research careers concerning applied problems or service careers focused on delivering behavioral technology. Because the contemporary conception of applied behavior analysis does not emphasize the differences between applied research and service delivery career directions, we may be producing individuals who are inadequately prepared to do either as effectively as the field requires (Johnston, in press).

One result may be an applied literature with some of the problems already described. For instance, the literature's emphasis on studies that demonstrate new methods and applications in preference to thematic experimental investigations of behavioral problems and procedures seems to stem from our failure to appreciate the very different interests, skills, and priorities required to effectively pursue careers in applied research versus careers in service delivery. Conducting sound, analytical research concerning the etiology of behavioral disorders, for example, may often require circumstances that are not customarily available in service delivery settings. This kind of research will be most effectively pursued by individuals whose training and daily interests are primarily research oriented and who work in settings and in bureaucratic environments conducive to research activities (e.g., university affiliated facilities). Furthermore, although these researchers will face ethical and regulatory limitations on their experimental options when using developmentally disabled individuals as subjects, we have

barely probed the experimental possibilities that remain available. In reconceptualizing how we can best use the field's resources to meet society's demands for behavioral services, it will help if we recognize that the effectiveness of our services ultimately depends on the scientific quality and scope of our applied research enterprise. These values should be well represented in our training programs.

Aside from reflecting a distinction between applied research versus service delivery, we also need to develop a better sense of the literature and what it says about the field's directions and needs. In other words, we need to take an organizational interest in our literature by relating its active and inactive areas to current issues and needs. For instance, the shortcomings of the applied literature regarding punishment and alternative ways of decreasing behavior have always been available for anyone to see, but few have been interested in looking at the literature in terms of disciplinary or even political needs. Although each researcher must always be free to pursue whatever questions he or she wishes, the field of behavior analysis—like other scientific disciplines—must begin to take regular stock of its research directions and relate them to other scientific and societal interests. The motivation to look at literatures in this way can be inculcated through graduate education.

Professional Education

The professionals who are seen as representing the field of behavior analysis in the area of developmental disabilities may also have something to do with the aversives controversy. First, because the field has generally not addressed curricular issues, it has no minimum or even recommended standards for what constitutes proper (minimum) training in behavior analysis at either Master's or doctoral levels. As a result, it sometimes seems as if behavior analysts (and, thus, the field itself) are increasingly being defined by self-nomination rather than by educational history. To some extent, what it means to be a behavior analyst can be

largely whatever each participant wants it to be, and the resulting collective definition of the field should be reason for concern.

Perhaps we should worry about where this might lead. There is a risk that the modal doctoral level individual working in some applied areas who is generally acknowledged by himself or herself and by others to be a behavior analyst might become someone who is fairly unfamiliar with the philosophical underpinnings of this approach to the study and management of behavior, who has only a superficial appreciation of the research methods of behavior analysis, and who has a poor understanding of the basic research literature from which applied procedures supposedly derive. Although there might be disagreement about the appropriate or necessary degree of expertise in these areas, it may be argued that such individuals are not likely to have state-of-the-art skills in analyzing and ameliorating behavioral problems. In fact, it is not at all uncommon to find individuals working in retardation settings who have graduate degrees but little formal behavioral training and who proclaim at least practical expertise in this technology. Although we certainly want to encourage identification with the field of applied behavior analysis, this situation presents a real problem for the identification of the field.

Even though these general training problems may contribute somewhat indirectly to the aversives controversy, their effect is probably pervasive. The lack of agreement about a core doctoral curriculum in behavior analysis certainly contributes to the shortcomings in the applied literature suggested above because the literature is primarily influenced by the educational history of those who have contributed to it. The field's preference for demonstrating the applied power of operant contingencies instead of analyzing behavior and procedures so as to develop more effective and reliable techniques is partly the result of how behavior analysts were trained to think about behavior and behavioral technology.

The field can begin addressing these

issues by establishing a minimum or core curriculum for not only the doctorate, but for the Master's degree as well. Although merely discussing and publicizing such standards would be useful, it might be more effective to set up a formal mechanism for accrediting training programs that meet the standards. Although accrediting training programs will not assure that their graduates uniformly share desirable skills, it is more financially and logistically feasible than a national program to certify individuals. (Even individual certification cannot guarantee all services actually delivered meet the highest professional standards; this would require evaluation of service delivery on site.) The Association for Behavior Analysis has recently established a task force charged with studying the issues involved in accrediting training programs and making recommendations about how to do this.¹

Establishing minimum standards for professional education in the field would have many desirable effects. It would certainly aid in defining expert credentials in behavior analysis, which itself would be extremely important in applied settings such as retardation facilities. It would also encourage graduate programs to develop their curricula in ways that would help assure that their graduates better served the field's needs. Furthermore, an accreditation program would establish contingencies that would encourage many academic departments now offering only limited training in behavior analysis to hire additional faculty in order to meet the standards.

A second kind of educational problem that is more specific to efforts in the area of developmental disabilities is that the field of behavior analysis has failed to produce a supply of properly trained personnel at bachelors, Master's, and doctoral levels who can adequately serve the necessary roles in the service delivery system. In spite of clear, though informal,

evidence of this problem, the discipline has allowed it to grow worse over the years. The shortage of individuals with even modest behavioral training working in the field of developmental disabilities is now severe at all three degree levels. At any moment, there are many positions going begging for applicants (Salzberg, Favell, Greene, Hopkins, & Schneider, 1989).

For example, Florida has been attempting to find up to 11 doctoral level behavior analysts for its system for more than three years now, and some positions still remain open. The problem is even worse at the Master's level. Alabama's much smaller system needs 50 Master's level individuals today, and 20 a year after that. Furthermore, these are generally good jobs with increasingly high pay, considerable authority for playing an important role in service systems, and excellent opportunities for career advancement. Of course, there are even more jobs available for individuals at the bachelor's level. Developmental disabilities is one of the few fields in which undergraduate psychology majors can build satisfying careers without graduate training.

In other words, we seem to have offered a behavior change technology without providing the means to deliver it. As a result, behavioral programming is often designed and largely implemented by individuals who are at least unprepared and often unmotivated to do what they are asked. Is it any surprise that behavioral programming in many retardation settings often does not approximate the state of the art? If someone is inclined to have concerns about the procedures used to manage the behavior of disabled individuals, they will not have to look very far to find things to complain about. Behavioral technology is indeed often badly implemented. Reinforcement-based procedures are often less effective than they might be. Punishment procedures are used when they do not need to be. And even though many behavior analysts are all too familiar with these problems, we have not yet addressed them as a field by improving our training goals and capa-

¹ This task force is chaired by Bill Hopkins, and its members include Don Buschell, Wayne Fuqua, Jim Johnston, Karen Fixsen, Andy Lattal, Chuck Salzberg, and Laura Schreibman.

bilities so that we can produce an adequate supply of properly trained personnel.

The field can address these problems by becoming much more aware of its educational capabilities, its annual training output at different degree levels, and various other features of its training efforts and the characteristics of its personnel. It should then regularly consider these personnel matters in the context of the field's desires for growth in different directions and in relation to the personnel needs in various employment markets. In other words, we need to do what other mature disciplines do; we must attempt to exert some control over the production of behavior analysts. Such controls would necessarily be indirect at the individual level, but they might focus on widely varying features, such as the level of degree earned, the general area of specialization, and the type of employment planned.

For instance, even though this kind of information has never been gathered, it seems clear that our ability to offer services to the field of developmental disabilities and the demand from this field for our graduates mean that we need to produce far more individuals who have a certain type of training at the bachelor's level and many more individuals with a different type of training at the Master's level. In addition, we may also need to produce more doctoral level individuals who have the interest and training to develop research careers in developmental disabilities in academic and research settings, although we must carefully evaluate the employment market for such individuals. Of course, we also need to turn out more doctoral graduates than we are presently producing who are interested in and trained for careers in the service delivery sector of this field. Although we do not yet know what proportions of these types of training are needed, this is exactly what the field's ongoing study of personnel issues must learn.

There is a third kind of training need not yet effectively addressed by the field. That is, the field has not done a very good job of educating other professionals, bu-

reaucrats, and parties interested in developmental disabilities about the nature of the field of behavior analysis and the technology that is being offered to serve this population. Even though behavior analysis has made respectable contributions to retardation journals, its focus tends to have been narrowly technique oriented. There seems to have been less tendency to publish on a broader spectrum of topics that would help educate other professionals about the implications of behavioral philosophy, methods, and literature for the care of developmentally disabled persons. Perhaps because behavior analysts are sometimes unfamiliar with talking to non-academic communities, we may do an even poorer job communicating with people who do not usually read journals. As a result, although bureaucrats, lawyers, parents, and interested citizens may know a little bit about behavioral programming, it may sometimes be worse than knowing nothing.

This superficial familiarity would seem to assure a fertile ground for misunderstandings, suspicions, and receptiveness to systematic programs of deceit. For instance, the number of individuals who have taken an active role in arguing against the use of procedures involving aversive consequences is not large (Schroeder, 1990), but their arguments (both reasoned and emotional) have been sufficiently attractive to a much larger constituency to garner considerable support. Might there have been broader resistance to such political efforts if behavioral technology and its foundations had been better understood by the full range of interested parties?

This kind of communication challenge must be met at national, state, and local levels. As the national representative of behavior analysis, ABA must reach out to retardation and other fields in more effective ways than it has in the past. For instance, although there has been interest on the part of the American Association for Mental Retardation for coordinating the scheduling of its national meeting with ABA's annual meeting so that members of both organizations can conveniently

attend parts of both gatherings, it has been difficult to arrange logistically. Nevertheless, this is exactly the kind of national gesture that is called for. At state and local levels, the effort must usually be more personal, although there are many opportunities for programmatic activities as well. State-level behavior analysis organizations can do a lot here through their annual meetings and other outreach programs (see Johnston & Shook, 1987).

Politics

In a more explicitly political vein, we have not done a very good job of integrating effectively with the larger group of professionals who constitute the power structure in developmental disabilities. This is an academically heterogeneous population of individuals who may share only a career in this field and includes professors, full-time researchers, officials in state and federal service agencies, directors of facilities, leaders of professional and special interest associations, and so forth.

Although there are certainly some laudatory exceptions, the field of behavior analysis is generally not powerfully represented in a broad range of other groups and organizations. Neither do we seem to have infiltrated ourselves very well into state service delivery systems. Just one behavior analyst in even a moderately powerful position in a state agency office may sometimes be more valuable than a number of behavior analysts working in service facilities. We do not seem to be intimately involved in setting policy at either academic or bureaucratic levels. The field tends to react to the policy initiatives of others and usually in a fairly uncoordinated way. In other words, behavior analysis is not as well represented in the academic, state, and federal power structure of developmental disabilities as it must be to avoid inappropriately constraining regulations and to achieve its long term goals.

Although behavior analysis has some legitimate excuses—it is, after all, a relatively small discipline, only a portion of which is directly involved with the area of retardation—this general deficiency is

certainly evident in the aversives controversy. For instance, the field is finding it difficult to respond in a coherent manner. Because behavior analysis is still struggling with basic issues such as how it should be defined and how its national association should function (Etzel, 1988), it has belatedly reacted to the aversives issues at a national level with *ad hoc* special interest groups (e.g., the International Association for the Right to Effective Treatment, Inc.) and the efforts of a few individuals who happen to be especially interested in the problem. The picture is no better at the state level. Behavior analysis seems to have few allies in the bureaucratic power structure in most states, and those who are in power have many available mechanisms for pursuing their agenda.

We need to teach our students to be fully involved in the professional communities defined by their interests, and these interests must be broadly defined. In the case of developmental disabilities, for example, we need to encourage students to be active members of a variety of developmental disability associations and special interest groups, to publish in a broad array of developmental disability journals, and to play the politics necessary to work their way into the power structure. We need to encourage students to look at administrative careers as no less valuable to the field's long-term interests than research or service delivery careers. And we need to teach students how to be effective in their dealings with those holding other perspectives without losing their own identity (Morse & Bruns, 1983).

PIG'S EARS AND SILK PURSES

In summary, the lessons that we can learn from the aversives controversy seem to revolve around how new behavior analysts are created. Graduate (and undergraduate) education has a pervasive influence on who we are as professionals and, thus, on how the field evolves. Our professional education not only gives us a technical repertoire, it largely determines the nature of our general interests,

which eventually become the interests of the field. If we tend to limit our professional involvement to behavioral organizations and journals, for example, it is because we were not trained to understand and appreciate the benefits of involvement with other professional specialties. Similarly, if we tend to ignore the needs of the punishment literature, it is because we were not adequately trained to evaluate the needs of the literature or to appreciate and practice certain styles of research.

Finally, even though the aversives controversy is disruptive and will lead to some legal and regulatory actions that require correction (see Sherman, 1991), it will also have some benefits for the field of behavior analysis and its interests in the area of developmental disabilities. First, it will prompt various appraisals such as this with their suggestions for how behavior analysis functions as a science, as a technology, and as a profession. These reviews may lead to some changes along the lines suggested here.

Second, a number of debates, symposia, and special events have already provided us with the belated opportunity to educate colleagues and others about the issues. For instance, in the fall of 1988, a small group of individuals were brought together by the National Institute for Disability and Rehabilitation Research (NIDRR) to educate some of their top officials on these matters (at which there was an opportunity to explain basic concepts to NIDRR staff, the director of the institute, and the U.S. assistant attorney general).² The Cambridge center for Behavioral Studies also held a debate in Boston in December of 1988 that has led to films and other educational materials.³ Finally, the National Institute of Child Health and Human Development held a consensus conference in September of 1989 that provided a formal assessment

of the scientific literature regarding the treatment of severe behavior disorders that will bear directly on these issues (National Institutes of Health, 1989). Of course, there have been dozens of symposia and other discussions of these matters at various national meetings.

Third, the controversy has already resulted in increased research funding designed to improve our knowledge of ways to manage serious problem behavior. A center grant was awarded by NIDRR to Robert Horner, Edward Carr, Glen Dunlap, Robert Koegel, and Wayne Sailor, among others, to conduct this kind of research. This is certainly not the only research effort that has been occasioned by these issues.

It is not yet clear what the resolution of the aversives controversy will bring. It is obvious that the issues this fight has raised will be with us in different forms for some years, and we will see actions from federal, state, and professional entities affecting the delivery of behavioral technology that will involve laws, regulations, policies, and research (Sherman, 1991). Nevertheless, it is possible to be optimistic about the effects of the aversives controversy. At one of Florida's retardation institutions in 1972, there was a major episode centering around the use of behavioral procedures. It was negatively covered by the state's newspapers and led to the governor appointing a blue ribbon advisory committee to make recommendations about how behavioral programming should be regulated. Out of that mess eventually evolved one of the strongest behavioral programming service delivery systems in the country, which is now spreading from the retardation system into the mental health system (Johnston & Shook, 1987). Can we use the aversives controversy to lead us toward improvements in how the field goes about delivering its technologies?

² The meeting was organized by Rob Horner, and the participants included Mike Cataldo, Barbara Etzel, Judy Favel, Doug Guess, Jim Johnston, Gail McGee, Steve Schroeder, and Marti Snell.

³ The participants included Bea Barrett, Gary LaVigna, Jim Johnston, Tim Paisey, Tom Nearny, Bob Sherman, Jane Salzana, Marcia Smith, and Travis Thompson.

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