

PSY 668: ANALYSIS AND TREATMENT OF DEVELOPMENTAL DISABILITIES

Spring, 2005 • MW 4:00-5:15pm • 3209 Dunbar

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COURSE GOALS

The purpose of this course is to familiarize you with the contemporary behavior-analytic research on the treatment of individuals with developmental disabilities. As most contemporary treatments are based on the results of prior assessments, the course will also cover functional assessment and reinforcer identification. The course readings are based on contemporary discussion and research articles from peer-reviewed journals and edited books. The first two thirds of the course will focus on reducing aberrant behavioral excesses, with the remainder of the course focusing on behavioral acquisition. The readings and class discussions should provide you with a strong foundation in behavioral treatment (and assessment), with particular emphasis on single-case individualized analyses in well-controlled settings. In addition to the coverage of specific methods, the course includes readings on some of the more conceptual and philosophical issues that currently exist in the field.

Based on my prior teaching experience, I have determined that success in this course depends at least two things: (a) a solid behavior-analytic background (general principles *and* research methods), and (b) carefully reading the course materials before class. If you do not have a sound behavioral background and/or are not prepared to commit to the reading requirements, you should probably reconsider your enrollment in the course.

COURSE READINGS

Your reading list is comprised of approximately 60 journal articles and book chapters. Two-thirds of the articles are available (in .pdf format) online at the web site referenced above. The remainder of the readings can be purchased in a coursepack from the WMU Bookstore.

ATTENDANCE / MAKE-UP POLICY

Attendance is not mandatory, but important for obtaining information from class discussions and taking quizzes and exams. Make-up exams will only be given in cases of documented emergencies, and only if I am informed within 24 hours after the scheduled event.

ACADEMIC MISCONDUCT

You are responsible for making yourself aware of and understanding the policies and procedures in the Graduate Catalog (pp. 26-28) that pertain to Academic Honesty. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Conduct. You will be given the opportunity to review the charge(s). If you believe you are not responsible, you will have the opportunity for a hearing. You should consult with me if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.

EVALUATION OF STUDENT PERFORMANCE

Daily Quizzes

At the beginning of most classes, there will be a 5-minute, multiple-choice/true-false quiz on the assigned readings for that day. The purpose of the quiz is to increase attendance, motivate your reading of the material, and minimally evaluate your subsequent understanding. Hence, the quizzes will not include questions requiring knowledge of overly specific details. Instead, your knowledge of the main themes and sections of the readings will be assessed. I will drop your lowest quiz score before grade calculation.

In-Class Discussion

I will subjectively assign you up to 3 percentage points toward your final grade based on the quantity and quality of your in-class discussion.

Exams

There will be 5 traditional exams this semester, each covering approximately one fifth of the course material. The exams will consist of short-answer and essay questions. You will have the entire scheduled class time to complete your exam.

Discussion Article

You will be required to write a brief discussion article of the contemporary research in one area of assessment and/or treatment in developmental disabilities. The article should summarize the research and important issues relating to a particular topic. You will select a topic from a list presented during the first week of class. The Stromer, McComas, and Rehfeldt (2000) discussion article on delayed reinforcement in the 2000 volume of JABA is an excellent model for this assignment (except for its length). A .pdf version of the article can be found at:

http://www.envmed.rochester.edu/wwwvgl/jaba_articles/2000/stromer-33-359.pdf

The manuscript should be double-spaced and written according to APA publication style. You are limited to 10 pages not including title page, abstract, and references. The article will be graded as follows: 70% content, 20% writing style, and 10% APA publication style. An outline (with references) of your article is due in class on March 14. The final article is due on April 11.

Re-grade Policy

If a student disagrees with an evaluation of an exam item or an assignment, a re-grade request may be submitted within one week of receipt of the grade in question. The request must contain a full explanation of the point of contention, as well as a copy of the exam or assignment. Re-grade requests will be evaluated only once, and may result in no grade change, or a higher or lower grade being awarded.

GRADING

Grade Allocation

| | | | | | |
|----------------------------------|---|---|---|---|-----|
| Exams 1-5 | . | . | . | . | 65% |
| Discussion Article | . | . | . | . | 17% |
| Quizzes | . | . | . | . | 10% |
| Discussion Article - outline | . | . | . | . | 5% |
| In-Class Discussion (subjective) | . | . | . | . | 3% |

Grading Scale

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|----|-------------|
| A | 92-100% |
| BA | 88-91% |
| B | 82-87% |
| CB | 78-81% |
| C | 72-77% |
| DC | 68-71% |
| D | 60-67% |
| E | 59% & below |

COURSE SCHEDULE

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| Jan. 3 | Course introduction, syllabus, introductory article |
| Jan. 5 | The “Functional” Approach |
| Jan. 10 | Functional Assessment – Informant Assessment |
| Jan. 12 | Functional Assessment – Descriptive Assessment |
| Jan. 17 | <i>No Class (MLK Day)</i> |
| Jan. 19 | Exam 1 |
| Jan. 24 | Functional Assessment – Experimental Functional Analysis |

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|----------------|---|
| Jan. 26 | Functional Assessment – Brief Functional Analysis |
| Jan. 31 | Functional Assessment – EO Assessment |
| Feb. 2 | Functional Assessment – Automatic Reinforcement |
| Feb. 7 | Exam 2 |
| Feb. 9 | Extinction |
| Feb. 14 | “Noncontingent” Reinforcement |
| Feb. 16 | EO Modifications & Environmental Enrichment |
| Feb. 21 | Differential Reinforcement |
| Feb. 23 | <i>No Class</i> |
| Feb. 28 | <i>No Class (Semester Recess)</i> |
| Mar. 2 | <i>No Class (Semester Recess)</i> |
| Mar. 7 | Functional Communication Training |
| Mar. 9 | Exam 3 |
| Mar. 14 | Punishment (outline due) |
| Mar. 16 | Punishment (cont’d) |
| Mar. 21 | Reinforcer Identification - 1 |
| Mar. 23 | Reinforcer Identification - 2 |
| Mar. 28 | Exam 4 |
| Mar. 30 | Acquisition: Basic Techniques |
| Apr. 4 | Acquisition: Behavioral Skills Training & Imitation |
| Apr. 6 | Acquisition: Verbal Behavior |
| Apr. 11 | Acquisition: Misc. (outline due) |
| Apr. 13 | Toilet Training, Feeding Disorders, Sleep Problems |
| Apr. 18 | Exam 5 (5:00-7:00) |

Note: I reserve the right to modify this syllabus during the semester.

COURSE READINGS

Introductory Reading

- Van Houten, R., Axelrod, S., Bailey, J. S., Favell, J. E., Foxx, R. M., Iwata, B. A., & Lovaas, O. I. (1988). The right to effective behavioral treatment. *Journal of Applied Behavior Analysis*, 21, 381-384.

The “Functional” Approach

- Carr, J. E., Coriaty, S., & Dozier, C. L. (2000). Current issues in the function-based treatment of aberrant behavior in individuals with developmental disabilities. In J. Austin & J. E. Carr (Eds.), *Handbook of applied behavior analysis* (pp. 91-95). Reno, NV: Context Press.
- Iwata, B. A., Vollmer, T. R., & Zarcone, J. R. (1993). The experimental (functional) analysis of behavior disorders: Methodology, applications, and limitations. In A. C. Repp & N. N. Singh (Eds.), *Perspectives on the use of nonaversive and aversive interventions for persons with developmental disabilities* (pp. 301-330). Sycamore Press: Sycamore, IL.
- Feldman, M. A., & Griffiths, D. (1997). Comprehensive assessment of severe behavior problems. In N. N. Singh (Ed.), *Prevention and treatment of severe behavior problems: Models and methods in developmental disabilities* (pp. 23-29). Pacific Grove, CA: Brooks/Cole.
- *Optional*: Carr, E. G. (1977). *The motivation of self-injurious behavior: A review of some hypotheses*. *Psychological Bulletin*, 84, 800-816.

Functional Assessment – Informant Assessment

- O'Neill, R. E., Horner, R. H., Albin, R. W., Sprague, J. R., Story, K., Newton, J. S. (1997). *Functional assessment and program development for problem behaviors: A practical handbook* (2nd ed.). Pacific Grove, CA: Brooks/Cole Publishing Company. (Chapter 2: pp. 9-25)
- Sturmey, P. (1994). Assessing the functions of aberrant behaviors: A review of psychometric instruments. *Journal of Autism and Developmental Disorders*, 24, 293-304.

Functional Assessment – Descriptive Assessment

- Chong, I. M., Carr, J. E., & Sidener, T. M. *Descriptive functional assessment of problem behavior: A methodological review*. Unpublished manuscript.
- Kahng, S., Iwata, B. A., Fischer, S. M., Page, T. J., Treadwell, K. R. H., Williams, D. E., & Smith, R. G. (1998). Temporal distributions of problem behavior based on scatter plot analysis. *Journal of Applied Behavior Analysis*, 31, 593-604.
- Vollmer, T. R., Borrero, J. C., Wright, C. S., Van Camp, C., & Lalli, J. S. (2001). Identifying possible contingencies during descriptive analyses of severe behavior disorders. *Journal of Applied Behavior Analysis*, 34, 269-287.

Functional Assessment – Experimental Functional Analysis

- Iwata, B. A., Pace, G. M., Dorsey, M. F., Zarcone, J. R., Vollmer, T. R., Smith, R. G., et al. (1994). The functions of self-injurious behavior: An experimental-epidemiological analysis. *Journal of Applied Behavior Analysis*, 27, 215-240.
- Hanley, G. P., Iwata, B. A., & McCord, B. E. (2003). Functional analysis of problem behavior: A review. *Journal of Applied Behavior Analysis*, 36, 147-185.
- *Optional*: Carr, J. E., & LeBlanc, L. A. (2003). *Functional analysis of problem behavior*. In W. O'Donohue, J. E. Fisher, & S. C. Hayes (Eds.), *Cognitive behavior therapy: Applying empirically supported techniques in your practice* (pp. 167-175). Hoboken, NJ: Wiley.

Functional Assessment – Brief Functional Analysis

- Derby, K. M., Wacker, D. P., Sasso, G., Steege, M., Northup, J., Cigrand, K., & Asmus, J. (1992). Brief functional assessment techniques to evaluate aberrant behavior in an outpatient setting: A summary of 79 cases. *Journal of Applied Behavior Analysis*, 25, 713-721.
- Vollmer, T. R., Marcus, B. A., Ringdahl, J. E., & Roane, H. S. (1995). Progressing from brief assessments to extended experimental analyses in the evaluation of aberrant behavior. *Journal of Applied Behavior Analysis*, 28, 561-576.

Functional Assessment – EO Assessment

- Smith, R. G., Iwata, B. A., Goh, H., & Shore, B. A. (1995). Analysis of establishing operations for self-injury maintained by escape. *Journal of Applied Behavior Analysis*, 28, 515-535.
- O'Reilly, M. F. (1997). Functional analysis of episodic self-injury correlated with recurrent otitis media. *Journal of Applied Behavior Analysis*, 30, 165-167.
- Kennedy, C. H., & Meyer, K. A. (1996). Sleep deprivation, allergy symptoms, and negatively reinforced problem behavior. *Journal of Applied Behavior Analysis*, 29, 133-135.

Functional Assessment – Automatic Reinforcement

- Kennedy, C. H., & Souza, G. (1995). Functional analysis and treatment of eye poking. *Journal of Applied Behavior Analysis*, 28, 27-37.
- Piazza, C. C., Hanley, G. P., & Fisher, W. W. (1996). Functional analysis and treatment of cigarette pica. *Journal of Applied Behavior Analysis*, 29, 437-450.
- LeBlanc, L. A., Patel, M. R., & Carr, J. E. (2000). Recent advances in the assessment of aberrant behavior maintained by automatic reinforcement in individuals with developmental disabilities. *Journal of Behavior Therapy and Experimental Psychiatry*, 31, 137-154.

Extinction

- Lerman, D. C., & Iwata, B. A. (1996). Developing a technology for the use of operant extinction in clinical settings: An examination of basic and applied research. *Journal of Applied Behavior Analysis*, 29, 345-382.
- Iwata, B. A., Pace, G. M., Cowdery, G. E., & Miltenberger, R. G. (1994). What makes extinction work: An analysis of procedural form and function. *Journal of Applied Behavior Analysis*, 27, 131-144.
- *Optional*: Lerman, D.C., Iwata, B.A., & Wallace, M.D. (1999). *Side effects of extinction: Prevalence of bursting and aggression during the treatment of self-injurious behavior*. *Journal of Applied Behavior Analysis*, 32, 1-8.

“Noncontingent” Reinforcement

- Carr, J. E., Coriatty, S., Wilder, D. A., Gaunt, B. T., Dozier, C. L., Britton, L. N., Avina, C., & Reed, C. L. (2000). A review of "noncontingent" reinforcement as treatment for the aberrant behavior of individuals with developmental disabilities. *Research in Developmental Disabilities, 21*, 377-391.
- Vollmer, T. R. (1999). Time-based schedules as treatment for severe behavior disorders. *Mexican Journal of Behavior Analysis, 25*, 85-103.
- *Optional: Vollmer, T. R., & Wright, C. S. (2003). Noncontingent reinforcement as treatment for problem behavior. In W. O'Donohue, J. E. Fisher, & S. C. Hayes (Eds.), Cognitive behavior therapy: Applying empirically supported techniques in your practice (pp. 266-272). Hoboken, NJ: Wiley.*

EO Modifications & Environmental Enrichment

- Wilder, D. A., & Carr, J. E. (1998). Recent advances in the modification of establishing operations to reduce aberrant behavior. *Behavioral Interventions, 13*, 43-59.
- Horner, R. H., Day, H. M., & Day, J. R. (1997). Using neutralizing routines to reduce problem behaviors. *Journal of Applied Behavior Analysis, 30*, 601-614.
- Ringdahl, J. E., Vollmer, T. R., Marcus, B. A., & Roane, H. S. (1997). An analogue evaluation of environmental enrichment: The role of stimulus preference. *Journal of Applied Behavior Analysis, 30*, 203-216.

Differential Reinforcement

- Vollmer, T. R., & Iwata, B. A. (1992). Differential reinforcement as treatment for behavior disorders: Procedural and functional variations. *Research in Developmental Disabilities, 13*, 393-417.
- Lindberg, J. S., Iwata, B. A., Kahng, S., & DeLeon, I. G. (1999). DRO contingencies: An analysis of variable-momentary schedules. *Journal of Applied Behavior Analysis, 32*, 123-136.
- Tarbox, J., & Hayes, L. J. (2003). Differential reinforcement of low-rate behavior. In W. O'Donohue, J. E. Fisher, & S. C. Hayes (Eds.), *Cognitive behavior therapy: Applying empirically supported techniques in your practice* (pp. 129-135). Hoboken, NJ: Wiley.

Functional Communication Training

- Hagopian, L. P., Fisher, W. W., Sullivan, M. T., Acquisto, J., & LeBlanc, L. A. (1998). Effectiveness of functional communication training with and without extinction and punishment: A summary of 21 inpatient cases. *Journal of Applied Behavior Analysis, 31*, 211-235.
- Hanley, G. P., Iwata, B. A., & Thompson, R. H. (2001). Reinforcement schedule thinning following treatment with functional communication training. *Journal of Applied Behavior Analysis, 34*, 17-38.
- LeBlanc, L. A., Hagopian, L. H., Maglieri, K. A., & Poling, A. (2002). Decreasing the intensity of reinforcement based interventions: Conceptual issues and clinical guidelines. *The Behavior Analyst Today, 3*, 289-300.

Punishment

- Miltenberger, R. H. (2001). *Behavior modification: Principles and procedures* (2nd ed.). Pacific Grove, CA: Brooks/Cole. (Chs. 17-18 – Time-out, Response Cost, Primary Punishment)

Punishment (cont'd)

- Lerman, D. C., & Vorndran, C. M. (2002). On the status of knowledge for using punishment: Implications for treating behavior disorders. *Journal of Applied Behavior Analysis, 35*, 431-464.

Reinforcer Identification - 1

- Pace, G. M., Ivancic, M. T., Edwards, G. L., Iwata, B. A., & Page, T. A. (1985). Assessment of stimulus preference and reinforcer value with profoundly retarded individuals. *Journal of Applied Behavior Analysis, 18*, 249-255.
- Fisher, W., Piazza, C. C., Bowman, L. G., Hagopian, L. P., Owens, J. C., & Slevin, I. (1992). A comparison of two approaches for identifying reinforcers for persons with severe and profound disabilities. *Journal of Applied Behavior Analysis, 25*, 491-498.
- DeLeon, I. G., & Iwata, B. A. (1996). Evaluation of a multiple-stimulus presentation format for assessing reinforcer preferences. *Journal of Applied Behavior Analysis, 29*, 519-533.

Reinforcer Identification - 2

- Carr, J. E., Nicolson, A. C., & Higbee, T. S. (2000). Evaluation of a brief multiple-stimulus preference assessment in a naturalistic context. *Journal of Applied Behavior Analysis, 33*, 353-357.
- Bojak, S. L., & Carr, J. E. (1999). On the displacement of leisure items by food during multiple-stimulus preference

assessments. *Journal of Applied Behavior Analysis*, 32, 515-518.

- Roane, H. S., Vollmer, T. R., Ringdahl, J. E., & Marcus, B. A. (1998). Evaluation of a brief stimulus preference assessment. *Journal of Applied Behavior Analysis*, 31, 605-620.
- Hanley, G. P., Iwata, B. A., & Lindberg, J. S. (1999). Analysis of activity preferences as a function of differential consequences. *Journal of Applied Behavior Analysis*, 32, 419-435.

Acquisition: Basic Techniques

- Cooper, J. O., Heron, T. E., & Heward, W. L. (1987). *Applied behavior analysis*. Columbus, OH: Merrill. (Ch. 14 - Shaping)
- Cooper, J. O., Heron, T. E., & Heward, W. L. (1987). *Applied behavior analysis*. Columbus, OH: Merrill. (Ch. 15 - Chaining)
- Demchak, M. (1990) Response prompting and fading methods: A review. *American Journal on Mental Retardation*, 94, 603-615.

Acquisition: "Behavioral Skills Training"

- Miltenberger, R. H. (2001). *Behavior modification: Principles and procedures* (2nd ed.). Pacific Grove, CA: Brooks/Cole. (Ch. 12 - Behavioral Skills Training Procedures)
- Miltenberger, R. G., Roberts, J. A., Ellingson, S., Galenski, T., Rapp, J. T., Long, E. S., & Lumley, V. A. (1999). Training and generalization of sexual abuse prevention skills for women with mental retardation. *Journal of Applied Behavior Analysis*, 32, 385-388.

Verbal Behavior

- Sundberg, M. L., & Michael, J. (2001). The benefits of Skinner's analysis of verbal behavior for children with autism. *Behavior Modification*, 25, 698-724.
- Miguel, C. F., Carr, J. E., & Michael, J. (2002). The effects of a stimulus-stimulus pairing procedure on the vocal behavior of children diagnosed with autism. *The Analysis of Verbal Behavior*, 18, 3-13.
- Sundberg, M. L., Loeb, M., Hale, L., & Eigenheer, P. (2002). Contriving establishing operations to teach mands for information. *The Analysis of Verbal Behavior*, 18, 15-29.

Acquisition: Misc.

- Dixon, M. R., & Cummings, A. (2001). Self-control in children with autism: Response allocation during delays to reinforcement. *Journal of Applied Behavior Analysis*, 34, 491-495.
- Davis, C. A., & Reichle, J. (1996). Variant and invariant high-probability requests: Increasing appropriate behaviors in children with emotional-behavioral disorders. *Journal of Applied Behavior Analysis*, 29, 471-481.
- Shabani, D. B., Katz, R. C., Wilder, D. A., Beauchamp, K., Taylor, C. R., & Fischer, K. J. (2002). Increasing social initiations in children with autism: Effects of a tactile prompt. *Journal of Applied Behavior Analysis*, 35, 79-83.
- Lancioni, G. E., O'Reilly, M. F., Campodonico, F., & Mantini, M. (2002). Increasing indices of happiness and positive engagement in persons with profound multiple disabilities. *Journal of Developmental and Physical Disabilities*, 14, 231-237.

Toilet Training, Feeding Disorders, Sleep Problems

- No readings

The instructor is committed to equal opportunity in education for all students, including those with documented physical or learning disabilities. It is the responsibility of students with documented disabilities to contact the instructor during the first week of class to discuss appropriate accommodations to ensure equity in grading, classroom experiences, and outside assignments. If necessary, the instructor will meet with the student and staff members of the Disabled Student Resources and Services office to formulate a written plan for appropriate accommodations.