Study Questions


1. The authors provide a concise comparison between basic and applied behavioral research. Describe how basic and applied research are: a) similar, and b) different.

2. Seven characteristics of applied behavior analysis are presented. Provide a brief description of each:

3. Under the heading of "analytic," two within-subject experimental designs are presented--the reversal and the multiple baseline. Briefly describe each design.


1. Why was attendance chosen as the target response?

2. Briefly describe the meeting procedures of the self-help groups.

3. Describe the intervention procedures. What might have been responsible for the increase in attendance that was observed in the first meetings of both intervention phases?

4. Describe the data depicted in Figure 2. What might have been responsible for the observed effects of the intervention? What might have been done to enhance these effects?

5. What evidence of generalization was observed?

6. What other behaviors involved in meeting participation might have been selected for contingent reinforcement? What would be the benefits and limitations of targeting a more effortful response for reinforcement?


4. What design was used in this study and why was it selected?

2. What were the inclusion criteria for participants in this study?

3. How were reinforcers identified for each participant? What are some potential limitations of this method of reinforcer identification?

4. For each variable ratio (VR) schedule, how did the authors determine the target criterion for each subject?

5. What were the primary dependent variables in this study?

4. Was it necessary for the authors to return to baseline after the third VR phase? Explain your answer.

5. How was "social validity" assessed?

8. Responding was either consistently above or below the phase response criterion for some participants. Discuss possible explanations for these phenomena.

1. What were the behaviors measured in this study?

2. Who were the observer(s) in this study? Can you identify a potential limitation to this system of data collection?

3. How did the authors measure the infant waking for three of the subjects during follow-up that was different than during intervention? Was this a better method of measurement than that used during the intervention?

4. Describe the extinction component of this study (i.e., what specifically did the parents do to extinguish the night wakeings?).

5. Describe the stimulus control component of the study.

6. What were some of the potential negative side effects of the extinction procedure? What were some of the potential positive side effects mentioned?

7. An underlying assumption of the study is that night time disruption is maintained by parental attention. What are some other potential sources of reinforcement for night time disruption?


1. Although reinforcement programs aimed at litter control may be effective, why are they impractical?

2. What was the general purpose of this study?

3. What was the behavior of interest? How was it defined? How was it measured?

4. The experimental design in this study was different than most that are used in applied behavior analysis studies. Describe the comparisons that were made and how they were made.

5. Describe the results of the study.

6. The authors heavily emphasized the stimulus control aspect of the "hat" can. How might reinforcement have influenced the results?


1. What is “sensitization,” and how did the authors control for it in this study?

2. What were used as the CS and the US in this experiment?

3. Briefly describe the baseline and conditioning (or control) procedures used in the study.

4. How were changes in blood pressure assessed?

5. How was conditioning demonstrated; that is, what data showed that conditioning had occurred?

6. What was the purpose of the extinction phase, in which only the CS was presented on each trial?
7. What results were obtained for the control subjects during CS-only trials?

8. The authors suggested that the CS was not a neutral stimulus before conditioning and that this fact provided stronger support for the conclusion that classical conditioning had occurred. What data indicated that the CS was not a neutral stimulus before conditioning? Why does this strengthen the authors’ conclusion?

9. How would you describe the unusual combination of experimental designs used in this study?


1. What were the first behaviors chosen to be increased by shaping in phase 1?

2. How was the first phase of shaping done?

3. What were the target behaviors for phase 2?

4. How was phase 2 training done?

5. How was phase 3 different from phases 1 and 2?

6. How is this shaping procedure for toilet training different from traditional procedures that place the baby on the toilet on a schedule?

7. What, if any, experimental design was used? What type of design could have been used?

8. The procedures used are not a pure example of “shaping.” Describe procedural deviations from traditional shaping.

9. Based on the findings of this study and based on other considerations, would you recommend early toilet training to most parents? Why or why not?

10. Although the procedures may be impractical for many parents, what do the results of this study say about developmental models of toileting?


1. What are some advantages of conducting "simulation" training?

2. What type of design was used in this study? Why do you think this design was used?

3. What do the four panels (see Figure 1) show for each child (i.e., what was the dependent variable)?

4. Briefly explain the "doll" probes and the "in vivo" (self) probes.

5. According to the authors, what function did the doll serve in teaching self-catheterization to these individuals?

6. What are some potential disadvantages of simulation training?

1. What procedures were used in the training setting to help facilitate generalization in the natural setting?

2. What criteria were used to determine which individuals would participate in the experiment?

3. On what two dimensions were participants’ responses to potential molesters measured?

4. How were participants’ motor and verbal responses scored?

5. List the components of training. In what way was reinforcement “differential?”

6. Why was it especially important to include the generalization component?

7. The data in Figure 1 do not identify which response components had been acquired. Suggest an alternative method of graphing that would provide such information.

8. What suggestion did the authors provide for improving maintenance of the self-protection skills?

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1. Why has relatively little research focused on the environmental determinants of SIB?

2. Why was protection of human subjects considered very important in this study? What precautions were taken?

3. Describe each of the four experimental conditions and its purpose.

4. What type of experimental design was used? Also, most of the research you have read in this course to date has focused on the evaluation of treatment. In what way is this study a significant departure?

5. What five patterns of responding were observed and what does each suggest?

6. In what ways was the study limited?

7. What is the major implication of this study?

8. Consider some other behavior problem that concerns you (e.g., smoking, child tantrums). Discuss some possible sources of reinforcement maintaining such behavior problems. Describe how you might set up experimental conditions to test possible reinforcement effects.

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1. In the introduction, the authors describe three types of extinction. What are they? How are they similar? Different?

2. For each participant in the study, what was the target behavior of interest?

3. Describe the experimental design used to evaluate the effects of the conditions on each participant’s behavior (hint: combinations of designs were used).

4. Name the 4 conditions used in the "functional analysis baseline" and briefly described what each was intended to assess.
5. For each participant, what were the results of the functional analysis (i.e., what consequence was maintaining the behavior)?

6. Briefly describe the 3 extinction procedures used in this study.

7. Traditionally in psychology, many interventions are designed based on the form of behavior (e.g., a treatment for aggression). Based on the results of this study, discuss the main limitation of recommending an intervention for a behavior based on the response topography (i.e., the form of the behavior)?

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1. What was the purpose of the study?

2. Describe the contexts and methods used for measuring the target behaviors. How did the authors define the target behaviors?

3. How was interobserver agreement assessed (i.e., What measures were compared? When? How was an agreement defined? How was reliability calculated?)?

4. Describe the basic treatment procedures (Treatment phase A). What specific contingencies do these procedures exemplify?

5. What type of experimental design was used to evaluate the effects of treatment?

6. Describe treatments B and C and their purpose.

7. Be able to summarize the general results of the study in terms of each of the measures taken (see #2 above).

8. Why is social reinforcement a particularly attractive form of intervention in the treatment of inappropriate speech?

9. Be able to suggest another way to: (a) decrease delusional speech, and (b) increase appropriate speech by these patients during their daily ward routine.

10. Review a diagnostic manual, specifically as it relates to schizophrenia. Are there any other behaviors characteristic of the disorder that might be socially reinforced (other than vocalizations)?

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1. What are the potential limitations of DRO? What are some potential advantages of NCR?

2. What is the difference between fixed-time and differential reinforcement?

3. How has the use of functional analysis methodology improved the development of DRO procedures for individuals whose SIB is maintained by positive reinforcement?

4. Describe the experimental designs used to evaluate treatment effects.

5. Summarize the results of the functional analysis for each participant.

6. Why did the authors suggest that NCR might be functionally similar to extinction?
7. Why did the author use different therapists to implement the NCR and DRO conditions for two participants?

8. Describe the fading procedure used during NCR.

9. What happened when SIB occurred during the DRO condition?

10. What is “adventitious” reinforcement? Was there any evidence that adventitious reinforcement occurred during the NCR condition?

11. Discuss other potential applications of NCR (i.e., other than as treatment for SIB).

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1. What were the target behavior(s) for the present study?

2. Why was a different method of dealing with these behavior being sought?

3. Examine the reliability data provided, and comment on its adequacy.

4. Describe briefly both the “redirect” and the “contingent observation” procedures.

5. The authors describe an attempt to assess the “social validity” of the contingent observation procedure. What did they do?

6. What were the authors' conclusions with respect to contingent observation as a behavior control technique?

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**McSweeney, J.A. (1978). Effects of response cost on the behavior of a million persons: Charging for directory assistance in Cincinnati. 11, 47-51.**

1. Be able to describe the dependent variable(s) and measurement procedures. Notice that there was no mention of interobserver agreement. Should agreement have been assessed; if so, how?

2. Disregarding the section on "interrupted time series design" etc., in what way was the experimental design similar to a multiple baseline? In what way was it different?

3. Compared to other studies you have read, what is unique about the behavioral data presented by McSweeney? (there are several things)

4. Describe the intervention and the results of the study. Did the subjects (consumers) benefit in any way?

5. A precipitous decrease in local directory assistance calls was observed near the end of baseline. To what did McSweeney attribute this finding? What do you think would have happened if the response cost was never implemented?

6. Why is the rationale for using response cost--at least, in the present study--appealing?

7. What is the major contribution of the study?

8. Be able to provide an example (not found in your text or the article) of the large-scale application of response cost.
1. Why might response contingent electrical stimulation be superior to and safer than a number of currently used punishment techniques?

2. What three functions did the design of SIBIS serve in this study?

3. What were the criteria for subject selection?

4. What was the cumulative duration of stimulation required for Marie?

5. Why were data collected on Marie's other SIB topographies?

6. Name some of the previous treatments attempted with Johnny prior to implementation of SIBIS.

7. Stimulus generalization was not addressed systematically, but what sorts of data might indicate that some amount of generalization had occurred?

8. Discuss ethical considerations in the use of punishment. How well were those considerations addressed in this article?


1. What traditional procedures have been used to solve the problem of employee theft? What common effect is achieved by these procedures?

2. What alternative procedure is proposed by the authors? What is its disadvantage, and how do the authors overcome it?

3. Describe the measurement and reliability procedures used to determine cash shortages.

4. What were the dependent variables of the study?

5. Describe the response cost procedure and the experimental design used to evaluate its effects.

6. Briefly describe the results of the study.

7. Cash receipts (shortage and overage) is an outcome variable that does not specify the behavior(s) responsible for producing a change in outcome. What cashier behaviors could have changed (there are at least four possibilities)? How would one determine which behaviors were changed?

8. What did the authors describe as advantages associated with the intervention program?

9. What is the potential ethical problem associated with the use of group contingencies? How do the authors address the problem?


1. What are some of the previous uses of token economies?

2. What were the problems with the weekly point system?
3. What was the contingency in effect during the “points” condition of Experiment 1?

4. How often were rooms checked during the final phase of the “fading points” condition of Experiment 2? What type of reinforcement schedule does this represent?

5. In the “points” condition of Experiment 3, on what day of the week was the most money deposited into the banks? What does this suggest about the schedule of reinforcement for depositing money into the bank? Does it appear that saving behavior ever came under the control of more “natural” contingencies of reinforcement?

6. What condition of Experiment 4 appeared to be the most effective both in terms of increasing percent news watched and percent correct?

10. What kinds of behavior should a token economy target in order to promote maintenance of behavior change?


1. What were the purposes of Experiment 1 as described by Mann?

2. What was the dependent variable measured in the study and how was it measured? What were the procedures?

3. Describe the 4 sets of contingencies and the behaviors for which they were designed.

4. Describe the two experimental designs used by Mann.

5. Data were presented for Subject 1. Answer the following based on the data.
   a. What was S1’s baseline wt. range?
   b. How often were the punishment contingencies used during Exp. 1? Exp. 2?
   c. Compare the 2-week minimum criteria to the weight trend.
   d. What happened to weight during reversals? Treatments?

6. What was the purpose of Experiment 2?

7. What conclusions were made by Mann? Do you agree?

8. What is a behavior trap?


1. Why is novel-writing behavior so susceptible to extinction?

2. Why did Wallace start keeping a writing chart?

3. What type of information did Wallace keep?

4. How did the chart control his behavior?

5. What does this article tell you about "self-management" or "self-control"?

6. Why doesn't writing on a fixed interval schedule of reinforcement (i.e., writing for an hour) work as well as writing on a fixed rate schedule (i.e., writing 3 pages)?
7. According to Pear, Wallace's writing mimicked behavior maintained on what type of schedule of reinforcement? How?

8. Construct an example of how you might apply some of the principles of self-management to your own behavior.


1. According to the authors, what are three characteristics shared by systematic desensitization and shaping procedures?

2. Describe the phobias presented by the two participants. Attempt to develop an objective behavioral definition of responses that might lead to a diagnosis of “phobia.” To what extent did these interventions address the defining characteristics of the phobia?

3. What type of feedback did the patient receive in Experiment 1? How did it differ from the feedback provided in Experiment 2?

4. Describe all of the conditions in each experiment.

5. What is your impression about the social validity of the interventions? What could have been done to improve social validity or to better evaluate social validity?

6. What are some other behavioral features of phobias that were not directly addressed in this study?


1. What methods typically have been used to control dental disease? What are their drawbacks?

2. From a behavioral standpoint, why are the natural consequences of dental neglect insufficient to maintain regular hygiene?

3. What were the purposes of the study?

4. Why was dental plaque chosen as the primary dependent variable? How was it measured? When? How was reliability assessed?

5. Describe the interventions used (education and education plus fee reduction).

6. In what way was the experimental design unusual?

7. Be able to summarize the results of the study with respect to initial outcome and follow-up.

8. What factors might have accounted for maintenance of low plaque levels for the fee reduction group at the 6-month follow-up?

9. Why was money selected as the reinforcer? What other types of reinforcers might be used?


1. Why might courteous service be more difficult to produce and maintain in public or nonprofit organizations than in private businesses?
2. Who were the subjects and what were their ages and length of times working at the organization?

3. What skill areas were trained?

4. What contingencies were programmed for each phase of the experiment?

5. Do the data indicate that the presence of an observer resulted in an increase in courteous behavior? How could this issue be avoided?

Van Houten, R., Rolider, A., Nau, P., Friedman, R., Becker, M., Chalodovsky, I., & Scherer, M. (1985) Large-scale reductions in speeding and accidents in Canada and Israel: A behavioral ecological perspective. 18, 87-93

1. How was interobserver agreement measured?

2. What type of experimental design was used?

3. What are some of the potential disadvantages of averaging the data across treated sites?

4. Is it a weakness of the experimental design that the treatment and reversal implementations were not staggered for each baseline, why or why not?

5. What behavioral processes(s) might have been responsible for the effects observed in the experiments conducted?

6. What might account for the negative correlation between sign effectiveness and traffic volume observed in experiment one?

7. How effective were the feedback signs in reducing speeding on streets on which they were not placed or on the opposite side of the street on which they were placed? What does this suggest in terms of the most effective community wide use of the signs?


1. What was the purpose of this study?

2. Who were the "trainers"? What was the setting?

3. What was the data collection procedure?

4. Describe the "communication wallet training." What were the results of this training?

5. In general, what was the effect of introducing the memory aid into the conversational probe sessions?

6. What additional information is provided in the bar graphs?

7. What were the results of the satisfaction ratings? the social validation? Why might there be such a difference?


1. Who implemented the intervention?
2. What was the intervention in Experiment 1?

3. What were the dependent measures in Experiments 1 and 2?

4. What experimental designs were used in Experiments 1 and 2? Which design more strongly demonstrates experimental control, and why?

5. What other behaviors could have been measured? How might the interventions have affected those behaviors?

6. What are some measurable aspects of athletic performance, including swimming and other sports, that could be amenable to a behavioral analysis?

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1. What was the target behavior of interest and how did it differ from the dependent variable actually measured?

2. Describe briefly the reinforcement contingency.

3. What type of experimental design was used, and how were the data analyzed?

4. Be able to describe the four general patterns of individual responding observed in Figure 1.

5. What was the purpose of presenting the data in Table 3, and what (generally) do these data show?

6. What important implications do the results of this study have for the treatment of drug abuse?

7. The authors (p. 501) discuss the issue of “competing reinforcers.” What is the point of their comments?

8. Discuss some possible sources of reinforcement maintaining drug use.