

B. F. SKINNER FOUNDATION STUDY GUIDE SERIES

B. F. SKINNER

VERBAL BEHAVIOR  
EXTENDED EDITION

STUDY GUIDE

BY ELBERT BLAKELY



*B.F. Skinner*

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VERBAL BEHAVIOR  
EXTENDED EDITION

STUDY GUIDE

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This study guide is designed to be used along with the B. F. Skinner Foundation's publication *Verbal Behavior: Extended Edition*.

Each chapter of the book (except Chapter 18) is featured in a separate section with questions, followed by sample answers. Some questions do not have answers, because they are either notes to attract reader's attention to an important point, or assignments, i.e. "describe in your own words."

## CHAPTER 1

### *A FUNCTIONAL ANALYSIS OF VERBAL BEHAVIOR*

1. IN WHAT WAY DO PEOPLE ACT DIRECTLY AND INDIRECTLY ON THE ENVIRONMENT?
  
2. HOW IS THE TERM “VERBAL BEHAVIOR” AN ADVANTAGE OVER OTHER TERMS SUCH AS “SPEECH” AND “LANGUAGE?”
  
3. WHAT IS THE TOTAL VERBAL EPISODE?
  
4. ON PAGE 3 (TOP), SKINNER IS TALKING ABOUT “RECENT ADVANCES” IN THE ANALYSIS OF BEHAVIOR. TO WHAT IS HE REFERRING?
  
5. DOES SKINNER SEE VERBAL BEHAVIOR AS FUNDAMENTALLY DIFFERENT FROM OTHER HUMAN BEHAVIOR?
  
6. WHAT IS SKINNER’S VIEW OF “UNDERSTANDING?”
  
7. WHAT HAVE BEEN THE SHORTCOMINGS OF LINGUISTICS, SYNTACTICAL, AND SEMANTIC STUDIES?

8. HAS THE FIELD OF SEMANTICS BEEN SUCCESSFUL?
  
  
  
  
  
  
  
  
  
9. WHAT CHARACTERISTICS OF VERBAL BEHAVIOR MAKE IT A GOOD OBJECT OF STUDY?
  
  
  
  
  
  
  
  
  
10. WHAT, THEN, IS LACKING?
  
  
  
  
  
  
  
  
  
11. HOW IS IT THAT THE CONCEPT OF "IDEAS" HAS MADE IT TEMPTING TO LOOK INSIDE THE ORGANISM? WHAT IS THE PROBLEM WITH THIS?
  
  
  
  
  
  
  
  
  
12. SKINNER ALSO TALKS ABOUT "IMAGES" THAT ARE SAID TO GIVE RISE TO VERBAL BEHAVIOR. TAKEN TOGETHER, AND INCLUDING OTHER SUCH *EXPLICANDA*, THESE CONSTITUTE EXPLANATORY FICTIONS. WHAT IS THE PROBLEM HEREIN WITH THESE?
  
  
  
  
  
  
  
  
  
13. WHAT IS THE UNFORTUNATE CONSEQUENCE OF THE DOCTRINE OF IDEAS?
  
  
  
  
  
  
  
  
  
14. SKINNER ALSO TACKLES "MEANING." IN SOME CASES, MEANING SEEMS STRAIGHTFORWARD AND SENSIBLE. WHAT IS THIS? WHEN DOES IT NOT?

15. ONE OF THE TECHNIQUES THAT SKINNER DISCUSSES IS “PARAPHRASING” AS A WAY TO EXPLAIN THE MEANING OF A WORD. WHAT IS THE DISADVANTAGE?

16. NOTE: SKINNER, ON PAGE 10, IS GIVING US A PREVIEW OF WHAT IS TO COME. HE WILL TALK ABOUT A DESCRIPTIVE TAXONOMY OF VERBAL BEHAVIOR, AND SOME EXPLANATIONS OF THE VARIOUS FORMS. MULTIPLE CAUSATION WILL BE DISCUSSED AS IT WAS IN *SCIENCE AND HUMAN BEHAVIOR*. ALSO, WHAT HAPPENS WHEN THE SPEAKER AND LISTENER ARE THE SAME PERSON? SKINNER WILL ADDRESS THIS TOPIC BY PRESENTING AN INTERPRETATION OF “THINKING.”

17. CHECK OUT THE IMPORTANT FEATURES OF THIS ANALYSIS. WHAT ARE THEY?



*CHAPTER ONE. ANSWERS.*

**1. IN WHAT WAY DO PEOPLE ACT DIRECTLY AND INDIRECTLY ON THE ENVIRONMENT?**

We operate directly on the physical environment in mechanical ways. Pushing, pulling, placing objects, etc. The effects are “automatic” and tied to physical relations between the response and environment. We act indirectly on the environment with verbal behavior. Here, the reinforcers are mediated by other people, but can be no less inevitable than direct effects.

**2. HOW IS THE TERM “VERBAL BEHAVIOR” AN ADVANTAGE OVER OTHER TERMS SUCH AS “SPEECH” AND “LANGUAGE?”**

Speech: it emphasizes vocal behavior. Hard to apply to other forms such as written or sign language.

Language: Often refers to the practices of a linguistic community, and not the actions of an individual.

Verbal behavior: It tends to emphasize the behavior of an individual, and lends itself well to identifying controlling variables. Moreover, it does not have a long history in traditional explanations.

**3. WHAT IS THE TOTAL VERBAL EPISODE?**

It is an account of the speaker and listener behavior.

**4. ON PAGE 3 (TOP), SKINNER IS TALKING ABOUT “RECENT ADVANCES” IN THE ANALYSIS OF BEHAVIOR. TO WHAT IS HE REFERRING?**

His work, and the work of others, in Experimental Analysis of Behavior (EAB).

*Journal of Experimental Analysis of Behavior* (JEAB) was published in 1954, and there was a small group of people dedicated to this field.

**5. DOES SKINNER SEE VERBAL BEHAVIOR AS FUNDAMENTALLY DIFFERENT FROM OTHER HUMAN BEHAVIOR?**

No. In fact, this is an important and essential point of this book. Specifically, we can apply the techniques of EAB to verbal behavior.

**6. WHAT IS SKINNER'S VIEW OF "UNDERSTANDING?"**

We understand verbal behavior when we denote the contingencies that control what people say or write.

**7. WHAT HAVE BEEN THE SHORTCOMINGS OF LINGUISTICS, SYNTACTICAL, AND SEMANTIC STUDIES?**

- A) They have not developed the techniques needed for a causal analysis.
- B) A formulation appropriate to all fields has not emerged. (i.e., to any field of human endeavor – see *Science and Human Behavior* for the same point)

**8. HAS THE FIELD OF SEMANTICS BEEN SUCCESSFUL?**

No. There are many kinds and brands, but the approach has failed to yield a unified system.

**9. WHAT CHARACTERISTICS OF VERBAL BEHAVIOR MAKE IT A GOOD OBJECT OF STUDY?**

- A) Easily observed
- B) Lots of it!
- C) Facts are substantial and can be agreed on
- D) Development of writing repertoires has provided a measurement system that is convenient and precise

**10. WHAT, THEN, IS LACKING?**

A functional analysis of verbal behavior.

**11. HOW IS IT THAT THE CONCEPT OF "IDEAS" HAS MADE IT TEMPTING TO LOOK INSIDE THE ORGANISM? WHAT IS THE PROBLEM WITH THIS?**

Verbal behavior is often considered to be an expression of "ideas." The ideas gave rise to the verbal behavior, and were thought to be the cause of it.

Problem: ideas can not be observed independently. In effect, they are explanatory fictions, as their evidence of existence is in the behavior they are said to cause.

12. SKINNER ALSO TALKS ABOUT “IMAGES” THAT ARE SAID TO GIVE RISE TO VERBAL BEHAVIOR. TAKEN TOGETHER, AND INCLUDING OTHER SUCH *EXPLICANDA*, THESE CONSTITUTE EXPLANATORY FICTIONS. WHAT IS THE PROBLEM HEREIN WITH THESE?

They “allay” curiosity and bring inquiry to an end.

13. WHAT IS THE UNFORTUNATE CONSEQUENCE OF THE DOCTRINE OF IDEAS?

That verbal behavior has an independent existence apart from other behavior. Words are not the expression of ideas, and we do not “use” them in this way.

14. SKINNER ALSO TACKLES “MEANING.” IN SOME CASES, MEANING SEEMS STRAIGHTFORWARD AND SENSIBLE. WHAT IS THIS? WHEN DOES IT NOT?

When the word refers to a physical object, it is easy to describe its meaning as the thing referred to. But when there is no physical referent, then it becomes more difficult. It becomes even more difficult in sentences.

15. ONE OF THE TECHNIQUES THAT SKINNER DISCUSSES IS “PARAPHRASING” AS A WAY TO EXPLAIN THE MEANING OF A WORD. WHAT IS THE DISADVANTAGE?

We have not accounted for the word by paraphrasing.

16. NOTE: SKINNER, ON PAGE 10, IS GIVING US A PREVIEW OF WHAT IS TO COME. HE WILL TALK ABOUT A DESCRIPTIVE TAXONOMY OF VERBAL BEHAVIOR, AND SOME EXPLANATIONS OF THE VARIOUS FORMS. MULTIPLE CAUSATION WILL BE DISCUSSED AS IT WAS IN *SCIENCE AND HUMAN BEHAVIOR*. ALSO, WHAT HAPPENS WHEN THE SPEAKER AND LISTENER ARE THE SAME PERSON? SKINNER WILL ADDRESS THIS TOPIC BY PRESENTING AN INTERPRETATION OF “THINKING.”

**17. CHECK OUT THE IMPORTANT FEATURES OF THIS ANALYSIS. WHAT ARE THEY?**

- A) Looks at the behavior of individuals.
- B) Little use of experimental results.
- C) No survey of the “literature.”
- D) The book represents an extension of experimentally-based facts about behavior to verbal behavior. Thus, it is an exercise in “interpretation”, not extrapolating experimental results.
- E) Appealing to measurable conditions and behavior that are measurable.
- F) No appeal to hypothetical entities.
- G) Ultimate aim is prediction and control of verbal behavior.



CHAPTER 2  
*GENERAL PROBLEMS*

1. SKINNER TALKS ABOUT “MEANING” IN THE BOTTOM OF PAGE 13, AND TOP OF PAGE 14. EXPLAIN IN YOUR OWN WORDS WHAT “MEANING” IS.
  
2. SKINNER DEFINES VERBAL BEHAVIOR AS THAT WHICH IS REINFORCED THROUGH THE MEDIATION OF OTHERS. IS IT JUST VOCAL BEHAVIOR? CAN BEHAVIOR HAVE VERBAL AND NONVERBAL CHARACTERISTICS?
  
3. ON PAGES 15-16, SKINNER TALKS ABOUT DIFFERENT KINDS OF RECORDS OF VOCAL BEHAVIOR. WHAT ARE THEY?
  
4. DISCUSS THE MAIN POINT REGARDING “SINGLE INSTANCE” VS “CLASS.”
  
5. DISCUSS SKINNER’S VIEW OF THE “SPEECH-SOUND” OR PHONETICS ISSUE.
  
6. WHAT IS “HYPOSTASIS?” THIS IS AN IMPORTANT POINT.
  
7. WHAT IS THE DIFFERENCE BETWEEN A PHONETIC REPORT AND DIRECT QUOTATION?



8. **WHAT IS THE DIFFERENCE BETWEEN “RESPONSE” AND “OPERANT?”**
  
9. **SO, WHAT IS THE SIZE OF THE UNIT OF VERBAL BEHAVIOR? WHAT IS A REPERTOIRE?**
  
10. **ON PAGE 22, SKINNER LAUNCHES INTO A DISCUSSION OF “PROBABILITY OF RESPONSE.” WHAT IS THE EVIDENCE OF THIS CONCEPT?**
  
11. **WHAT ARE THE LIMITATIONS OF THE AFOREMENTIONED INDICES OF STRENGTH?**
  
12. **THE DISCUSSION OF OVER-ALL FREQUENCY IS DIFFICULT. FIRST, WHAT IS MEANT BY THIS MEASURE? THEN, WHAT IS A LIMITATION?**
  
13. **DISCUSS PROBABILITY AND PREDICTING THE SINGLE INSTANCE.**
  
14. **ON PAGE 29, SKINNER DESCRIBES AN EXPERIMENT IN WHICH A BIRD LEARNS TO MAKE A “FIGURE 8.” WHAT PROCEDURE IS THIS?**

- 15. TALK ABOUT HOW BEHAVIOR MAY BE CONTROLLED BY DEPRIVATION.**
  
- 16. GIVE AN EXAMPLE OF HOW A DEPRIVATION MAY STRENGTHEN A CLASS OF BEHAVIOR.**
  
- 17. EXPLAIN HOW THE CONCEPT OF “THIRST” OR “HUNGER” IS UNNECESSARY.**
  
- 18. EXPLAIN THE DIFFERENCE BETWEEN ESCAPE AND AVOIDANCE.**
  
- 19. WHAT IS THE “TOTAL VERBAL EPISODE?”**

*CHAPTER TWO. ANSWERS.*

1. **SKINNER TALKS ABOUT “MEANING” IN THE BOTTOM OF PAGE 13, AND TOP OF PAGE 14. EXPLAIN IN YOUR OWN WORDS WHAT “MEANING” IS.**

It is not a characteristic of a word, or a dependent variable, but a characteristic of the causes of the word, or the independent variable.

2. **SKINNER DEFINES VERBAL BEHAVIOR AS THAT WHICH IS REINFORCED THROUGH THE MEDIATION OF OTHERS. IS IT JUST VOCAL BEHAVIOR? CAN BEHAVIOR HAVE VERBAL AND NONVERBAL CHARACTERISTICS?**

Verbal behavior is not just vocal, as other forms can have mediated reinforcement (signs, notes, pointing, gestures). Yes, behavior can have both characteristics. For example, behavior may have reinforcing effects on the physical environment, but also generate reinforcers produced by others.

3. **ON PAGES 15-16, SKINNER TALKS ABOUT DIFFERENT KINDS OF RECORDS OF VOCAL BEHAVIOR. WHAT ARE THEY?**

- A) Electromyography (EMG)-like record of muscles involved
- B) Acoustic record that shows the various pitches of sounds emitted
- C) Phonetic record – speech broken into constituent sounds (NOTE: such a record makes no assumptions about functional significance of the phonics)

4. **DISCUSS THE MAIN POINT REGARDING “SINGLE INSTANCE” VS “CLASS.”**

In the analysis of behavior, we can describe single instances, but when predicting behavior, we are really predicting classes of behavior that have a particular property. For example, if we predict that a person will open the door, we are less concerned with any topography, and more concerned with behavior that results in opening the door. Likewise, in verbal behavior we are interested not in the musculature, but in sound patterns that produce a given effect on the verbal community.

5. **DISCUSS SKINNER’S VIEW OF THE “SPEECH-SOUND” OR PHONETICS ISSUE.**

Speech-sounds are not really the important issue in understanding verbal behavior. Indeed, if vocal behavior was not present, and we used non-vocal communication, the problems of verbal behavior would still remain.

**6. WHAT IS “HYPOSTASIS?” THIS IS AN IMPORTANT POINT.**

If someone asks “What did Shaun say today?” and you respond with “He said he will be here at 5 pm”, this is a reconstruction of the behavior of interest, and is unusual in science. We typically do not report behavior by imitating it. In a sense, the reconstruction is the “name” of the response (not the response itself, of course). This reconstruction is hypostatis, and the names of the responses are acoustically similar to the responses themselves. Moreover, the variables responsible for the reconstruction are not necessarily the same as those responsible for the original statement.

**7. WHAT IS THE DIFFERENCE BETWEEN A PHONETIC REPORT AND DIRECT QUOTATION?**

The former requires only a small repertoire to transcribe speech, but thousands of different “words.” Moreover, a direct quotation usually involves inferring something about the causal variables or the effects on a listener.

**8. WHAT IS THE DIFFERENCE BETWEEN “RESPONSE” AND “OPERANT?”**

Response is a single instance and there is no requirement of controlling variables. An operant is a class of responses and requires a specification of controlling variables (at least one is required: its effect on the environment).

**9. SO, WHAT IS THE SIZE OF THE UNIT OF VERBAL BEHAVIOR? WHAT IS A REPERTOIRE?**

In linguistics, the unit may be the words and morphemes, or phrases, clauses, sentences, etc. Any of these may come under functional control and are therefore identifiable units.

A repertoire is a collection of potential operants of a speaker. It is different from a “vocabulary” as a repertoire involves operants that require controlling variables, not just a collection of topographies.

**10. ON PAGE 22, SKINNER LAUNCHES INTO A DISCUSSION OF “PROBABILITY OF RESPONSE.” WHAT IS THE EVIDENCE OF THIS CONCEPT?**

A) Emission: Whether or not the response is emitted. Strength is heightened when the verbal behavior is emitted under unusual, or inappropriate situations. For example, talking work at a party or sporting event, projective tests (see *Science and*

*Human Behavior*), verbal summator.

- B) Energy level: An energetic “NO” may indicate strength of the verbal behavior. Pitch level may also vary with energy level (as db increases, pitch may also).
- C) Speed: This refers to how quickly the various parts of the verbal behavior follow each other, or the latency of the verbal behavior following relevant variables.
- D) Repetition: Whether or not the response is repeated after the initial emission. “NO, NO, NO” suggests a stronger operant than merely “NO.”

**11. WHAT ARE THE LIMITATIONS OF THE AFOREMENTIONED INDICES OF STRENGTH?**

They do not always vary together. Exceptions to co-variation must be explained. Also, different values of a measure may not reflect strength, but form: DE-sert and de-SERT are different operants unrelated to the energy level. Thus, accents on different word parts make energy levels difficult. Moreover, these measures may be affected by special contingencies, such as speaking more energetically to deaf people, or repetition may be needed in loud rooms. In essence, there are contingencies that may require changes in energy, repetition, or speed that may have nothing to do with the actual “strength” of the operant.

**12. THE DISCUSSION OF OVER-ALL FREQUENCY IS DIFFICULT. FIRST, WHAT IS MEANT BY THIS MEASURE? THEN, WHAT IS A LIMITATION?**

Over-all frequency is rate of response. But, simply developing “word counts” can be misleading, as they may be different operant classes.

**13. DISCUSS PROBABILITY AND PREDICTING THE SINGLE INSTANCE.**

In the laboratory, we can easily see changes in rate as a function of independent variables. But, we are often interested in the probability of a single forthcoming event. It is probably the case that such predictions will rely on rates. Indeed, in multiple determination of a behavior, we infer the contribution of each variable based on observations of rates.

**14. ON PAGE 29, SKINNER DESCRIBES AN EXPERIMENT IN WHICH A BIRD LEARNS TO MAKE A “FIGURE 8.” WHAT PROCEDURE IS THIS?**

Shaping.

NOTE: In this section, Skinner is discussing the well-known processes of reinforcement and extinction. On page 31, he also talks about discriminative control.

**15. TALK ABOUT HOW BEHAVIOR MAY BE CONTROLLED BY DEPRIVATION.**

When behavior is reinforced with, say, food, then the behavior may be strengthened by food deprivation.

**16. GIVE AN EXAMPLE OF HOW A DEPRIVATION MAY STRENGTHEN A CLASS OF BEHAVIOR.**

If a person has learned to get food by 1) going to the refrigerator 2) asking for food and 3) getting in the car and going to the store, then 1, 2, and 3 will be strengthened by food deprivation.

**17. EXPLAIN HOW THE CONCEPT OF “THIRST” OR “HUNGER” IS UNNECESSARY.**

In predicting or controlling a given response, we do not change the motivational condition directly, but instead manipulate the controlling variables (e.g., deprivation) directly. Thus, the 2nd link “thirst” is irrelevant, as practical control will require we look at manipulable variables.

Deprivation → Thirst → “Water”

**18. EXPLAIN THE DIFFERENCE BETWEEN ESCAPE AND AVOIDANCE.**

In escape, the behavior terminates or reduces some event. In avoidance, behavior terminates or reduces some second event that precedes the first event.

**19. WHAT IS THE “TOTAL VERBAL EPISODE?”**

It is an account of the speaker and listener behavior. And, to completely account for verbal behavior, we need both.





CHAPTER 3  
*THE MAND*

1. WHAT IS A MAND? WHAT IS IT "SHORT" FOR?
  
2. CAN YOU INFER THE FUNCTION OF VERBAL BEHAVIOR BY EXAMINING THE FORM?
  
3. WHAT DOES SKINNER MEAN BY THE "TOTAL VERBAL EPISODE?"
  
4. WHAT IS THE DIFFERENCE BETWEEN A REQUEST AND COMMAND?
  
5. SKINNER WRITES AT SOME LENGTH ABOUT VARIOUS CLASSES OF MANDS THAT DIFFER WITH RESPECT TO FUNCTIONAL CONTROL OVER THE LISTENER BEHAVIOR. GIVE SOME EXAMPLES.
  
6. IN CLASSIFYING MANDS IN TERMS OF CONTROLLING VARIABLES OF LISTENER BEHAVIOR, HOW IS THIS DIFFERENT FROM TRADITIONAL SCHEMES?
  
7. SKINNER POINTS OUT THAT FREQUENT MANDS MAY CAUSE THE LISTENER TO "REVOLT." HOW CAN THIS EFFECT BE MITIGATED?

8. **WHAT IS A GENERALIZED MAND?**
  
9. **WHAT ARE SOME DYNAMIC PROPERTIES OF MANDS? WHAT MAY ACCOUNT FOR THEM? WHAT ABOUT LISTENER BEHAVIOR?**
  
10. **WHAT IS THE EFFECT OF A LONG HISTORY OF RESPONDING TO MANDS?**
  
11. **WHAT IS THE SIGNIFICANCE OF THE EXAMPLE OF THE TWO MATH PROBLEMS AND THE MAND "DO IT ON PAPER."**
  
12. **ON PAGE 44, SKINNER REVISITS THE "MEANING" PROBLEM. WHAT IS THE TRADITIONAL VIEW OF MEANING OF MANDS IN THIS PASSAGE? IN SKINNER'S VIEW?**
  
13. **WHAT IS SKINNER'S VIEW OF FORMAL SYSTEMS THAT EMBRACE GRAMMAR AND SYNTAX?**
  
14. **EXPLAIN THE POINT ABOUT CHILDREN LEARNING TO CRY FOR DIFFERENT REASONS. WHAT IS THE ADVANTAGE OF THIS ACCOUNT?**
  
15. **WHAT DETERMINES THE FORM OF A MAND? ARE OTHER STIMULI RELEVANT?**

16. WHAT, THEN, IS THE “EXTENDED MAND?” WHY DO THEY OCCUR?

17. HOW COULD MANDS BE SUPERSTITIOUS?

18. CAN WE MAND “EMOTIONAL REACTIONS?” (CHEER UP! DRY YOUR TEARS!)

19. WHAT ARE MAGICAL MANDS? HOW DOES SKINNER ACCOUNT FOR THEM?

20. HOW DOES SKINNER EXPLAIN POETRY THAT INCLUDES MANDS?

*CHAPTER THREE. ANSWERS.*

**1. WHAT IS A MAND? WHAT IS IT “SHORT” FOR?**

Verbal behavior that is reinforced by a characteristic consequence (often specified in the mand), and is therefore under functional control of deprivation/aversive stimulation. There is a unique relationship between the form of the mand and the particular consequence.

It is derived from terms such as “command” or “demand.”

**2. CAN YOU INFER THE FUNCTION OF VERBAL BEHAVIOR BY EXAMINING THE FORM?**

No. However, some forms are often associated with particular variables such that the function may be inferred.

**3. WHAT DOES SKINNER MEAN BY THE “TOTAL VERBAL EPISODE?”**

He refers to the fact that we must account for both speaker and listener behavior.

**4. WHAT IS THE DIFFERENCE BETWEEN A REQUEST AND COMMAND?**

The maintaining variables for the listener differ. In a request, the listener complies for positive reinforcers. In a command, the listener complies to escape from conditioned aversive stimuli supplied by the speaker.

**5. SKINNER WRITES AT SOME LENGTH ABOUT VARIOUS CLASSES OF MANDS THAT DIFFER WITH RESPECT TO FUNCTIONAL CONTROL OVER THE LISTENER BEHAVIOR. GIVE SOME EXAMPLES.**

Request and command: See above

Prayer: Speaker generates an emotional predisposition in listener that strengthens behavior

Advice: Positive reinforcers not supplied by speaker

Warning: Negative reinforcers not supplied by speaker

Permission: When listener is inclined to behave, but is exposed to threat. Speaker reduces it.

**6. IN CLASSIFYING MANDS IN TERMS OF CONTROLLING VARIABLES OF LISTENER BEHAVIOR, HOW IS THIS DIFFERENT FROM TRADITIONAL SCHEMES?**

Traditionally, such classifications often appeal to the “intention” of the speaker. But, Skinner shows that intention may be translated into contingencies of reinforcement of the listener behavior.

**7. SKINNER POINTS OUT THAT FREQUENT MANDS MAY CAUSE THE LISTENER TO “REVOLT.” HOW CAN THIS EFFECT BE MITIGATED?**

- A) Softening or concealing the mand character: “I’m thirsty” or “Would you mind getting me a drink?” instead of “Water!”
- B) Flattery or praise: “Get me a drink, my good man.”

**8. WHAT IS A GENERALIZED MAND?**

A mand that is evoked by a variety of establishing operations (EOs) (“please”).

**9. WHAT ARE SOME DYNAMIC PROPERTIES OF MANDS? WHAT MAY ACCOUNT FOR THEM? WHAT ABOUT LISTENER BEHAVIOR?**

Energy level, speed, intensity. These may be determined by EO strength, as well as history of reinforcement.

Listener behavior may be determined by EO properties of speaker behavior, as well as historical variables.

**10. WHAT IS THE EFFECT OF A LONG HISTORY OF RESPONDING TO MANDS?**

Listeners may respond without any particular EO. In a sense, a generalized compliance class.

**11. WHAT IS THE SIGNIFICANCE OF THE EXAMPLE OF THE TWO MATH PROBLEMS AND THE MAND “DO IT ON PAPER.”**

That listeners may not even be aware that they are responding to mands and other controlling variables. Indeed, this example shows the effects of multiple control, as words in the instructions strengthened addition in the first problem, and multiplication in the second.

**12. ON PAGE 44, SKINNER REVISITS THE “MEANING” PROBLEM. WHAT IS THE TRADITIONAL VIEW OF MEANING OF MANDS IN THIS PASSAGE? IN SKINNER’S VIEW?**

The reinforcer that is specified in the mand. In Skinner’s view, it is the reinforcer, as well as the EO. Thus, the “meaning” of any mand must specify the entire contingency: evocative variables and the reinforcers responsible for their effect.

**13. WHAT IS SKINNER’S VIEW OF FORMAL SYSTEMS THAT EMBRACE GRAMMAR AND SYNTAX?**

Not in favor, because they do not suggest techniques that would explain the provenance of the verbal behavior.

**14. EXPLAIN THE POINT ABOUT CHILDREN LEARNING TO CRY FOR DIFFERENT REASONS. WHAT IS THE ADVANTAGE OF THIS ACCOUNT?**

In newborns, crying may be an unlearned response to various EOs. However, crying may then be reinforced by events such as parent attention, and therefore be evoked by the relevant EO.

The advantage is that 1) terms can be defined by known experimental processes (conceptually systematic!) 2) it is consistent with *explicanda* of other verbal and nonverbal behavior

**15. WHAT DETERMINES THE FORM OF A MAND? ARE OTHER STIMULI RELEVANT?**

Contingencies of reinforcement provided by the listener and verbal community at-large determine the form of a mand, and what forms will be effective. However, other stimuli are important, as they may acquire discriminative control over the mand because they are present during reinforcement.

**16. WHAT, THEN, IS THE “EXTENDED MAND?” WHY DO THEY OCCUR?**

It is a mand that occurs in the absence of the usual discriminative stimuli. For example, we may demand that our car “stop”, that the door “open”, etc. Or, we may issue mands to babies, dolls, or untrained animals. They can not possibly provide reinforcement, but they have characteristics that are similar to individuals who do provide reinforcement for mands. Thus, it is a stimulus induction, or generalization, process.



NOTE: because some of the usual controlling variables are absent, the response may be unusually weak or “whimsical” with a comment that indicates its lack of strength.

**17. HOW COULD MANDS BE SUPERSTITIOUS?**

Certain mands may be maintained by occasional reinforcers that have no mechanical or physical connection. In a sense, the reinforcers are “accidental” or delivered for reasons other than the occurrence of the mand.

**18. CAN WE MAND “EMOTIONAL REACTIONS?” (CHEER UP! DRY YOUR TEARS!)**

In some cases, the mere form of the mand does not have the desired effects. However, there are other stimuli that may accompany that may have the desired effects. For example, “Dry your tears” may be accompanied by stroking or soothing tones of voice that may affect the listener.

**19. WHAT ARE MAGICAL MANDS? HOW DOES SKINNER ACCOUNT FOR THEM?**

It is a form of extended mand that has no history of reinforcement to explain its emission, or the emission of similar behavior.

Skinner accounts for them by appealing to a history of mands that forms a generalized response class that is maintained by “control over the environment.” Or, there may be moments of “great stress” (or strong EOs) that may evoke the response; in a sense, the speaker may be merely describing the reinforcer appropriate to a given EO.

**20. HOW DOES SKINNER EXPLAIN POETRY THAT INCLUDES MANDS?**

He discusses “poetic license” in which the writer experiences strong EOs, and emits mands in the form of lyric poems. The poetic community and readership maintain it, despite the absence of usual contingencies for mands.



CHAPTER 4

*VERBAL BEHAVIOR UNDER THE CONTROL  
OF VERBAL STIMULI*

1. ARE PRIOR STIMULI IRRELEVANT IN THE MAND?
2. WHAT ARE THE THREE LEVELS OF RELATIVE PROBABILITIES OF THE MAND? IS "C" THE SAME AS "NAMING?"
3. WHAT ARE THE TWO WAYS OF RELEASING VERBAL BEHAVIOR FROM A SPECIFIC EO?
4. AFTER ELIMINATING THE RELATION BETWEEN A RESPONSE AND EO, WHAT, THEN, DETERMINES THE FORM OF THE RESPONSE?
5. IN WHAT WAY CAN ESCAPE FROM AVERSIVE STIMULATION BE A CONDITIONED GENERALIZED REINFORCER?
6. WHAT IS A VERBAL STIMULUS?
7. SKINNER MOVES ON INTO EXPLAINING CONTROL BY PRIOR VERBAL STIMULI. FIRST UP IS THE ECHOIC. WHAT IS THIS CLASS?



16. WHAT IS THE ROLE OF “SELF TEXTUAL BEHAVIOR?”
  
17. WHAT IS TRANSCRIPTION?
  
18. IF BOTH THE STIMULUS AND RESPONSE PRODUCTS ARE IN THE SAME DIMENSION (I.E., COPYING TEXT), IS IT “SELF CORRECTING?”
  
19. WHAT ARE INTRAVERBALS?
  
20. GIVE A RANGE OF EXAMPLES THAT ARE INTRAVERBAL.
  
21. SKINNER GOES ON TO DISCUSS CHAINS OF INTRAVERBALS. IS ANY ONE LINK UNDER EXCLUSIVE CONTROL OF THE PREVIOUS? WHAT IS A “HAPLOLOGICAL ERROR?”
  
22. HOW DOES SKINNER SEE “WORD ASSOCIATIONS?”
  
23. WHAT REINFORCERS MAINTAIN INTRAVERBALS?

24. WHAT IS “CONTIGUOUS USAGE?”
25. WHAT KINDS OF VARIABLES CAN DETERMINE THE RESPONSE TO A WORD(S)?
26. IS THERE A MINIMAL UNIT OF INTRAVERBALS?
27. HOW DOES SKINNER CLASSIFY TRANSLATION? GIVE AN EXAMPLE.
28. WHAT ARE THE DYNAMIC PROPERTIES OF ECHOICS, TEXTUALS, AND INTRAVERBALS? WHY IS THIS?
29. IF THERE IS SOME KIND OF “MEANING” TO THESE VERBAL BEHAVIOR UNDER THE CONTROL OF VERBAL STIMULI, WHAT IS IT?





*CHAPTER FOUR. ANSWERS.*

**1. ARE PRIOR STIMULI IRRELEVANT IN THE MAND?**

No. Mands are reinforced only when an audience is present, so discriminative control by the audience emerges.

**2. WHAT ARE THE THREE LEVELS OF RELATIVE PROBABILITIES OF THE MAND? IS "C" THE SAME AS "NAMING?"**

- A) Absence of listener (low probability)
- B) Listener appears (higher probability)
- C) Listener appears with desired item (highest probability)

No. Naming is more appropriate to verbal behavior that bears no relationship to a specific reinforcer, and is therefore independent of an establishing operation (EO).

**3. WHAT ARE THE TWO WAYS OF RELEASING VERBAL BEHAVIOR FROM A SPECIFIC EO?**

- A) Reinforce with a variety of reinforcers, and the response will exist in strength unless there is no EO
- B) Use generalized conditioned reinforcement (approval, praise)

**4. AFTER ELIMINATING THE RELATION BETWEEN A RESPONSE AND EO, WHAT, THEN, DETERMINES THE FORM OF THE RESPONSE?**

Prior stimuli. We reinforce response A in the presence of stimulus a, response B in the presence of stimulus b, etc.

**5. IN WHAT WAY CAN ESCAPE FROM AVERSIVE STIMULATION BE A CONDITIONED GENERALIZED REINFORCER?**

A person may deliver a variety of aversive events, and therefore preceding stimuli (i.e., threats) may be conditioned. Thus, the elimination of a threat will be a reinforcer.

**6. WHAT IS A VERBAL STIMULUS?**

A stimulus that is produced by another person's verbal behavior. For example, an "echoic stimulus" functions as a mand for the person who issued it. ("say candy")

**7. SKINNER MOVES ON INTO EXPLAINING CONTROL BY PRIOR VERBAL STIMULI. FIRST UP IS THE ECHOIC. WHAT IS THIS CLASS?**

The evocative stimulus is a prior verbal stimulus with point-to-point correspondence to the response.

**8. WHAT ARE THE RANGE OF REINFORCERS AVAILABLE FOR ECHOICS?**

- A) “Educational reinforcers” in teaching speech
- B) Reduction of threat issued by listener
- C) We may echo to re-present a stimulus so that it is effective as SD (e.g., “What is a positive reinforcer?” A positive reinforcer is...)

**9. SKINNER DISCUSSES WHAT ECHOICS ARE NOT. PRESENT AN OVERVIEW OF HIS MAIN POINTS.**

- A) Echoics are not self-praise statements – a verbal stimulus of the same form does not precede it.
- B) Repeating what you heard previously – there is a “special temporal relation” absent. However, he does not define what this relationship is.
- C) Rule-governed behavior that has a formal similarity to the behavior in the rule. For example, if A says “When he comes in, tell him ‘I am upset.’” B then says “I am upset” upon arrival of the person. B’s statement is under functional control of the arrival of the person.
- D) Echoics are not “instinct.” There is no similarity between the stimulus (sounds) and the musculature that produces them. There is, in a sense, a similarity between the sounds and the effects of the musculature. Echoics are operant classes subject to contingencies. Moreover, that parents have to teach echoics early in life is additional evidence that this class is not innate.

NOTE: Skinner describes a differential reinforcement process of learning echoics on page 60. The speaker tries various sounds, and is successful when a match is achieved.

**10. GO BACK TO PAGE 59, AND READ THE PASSAGE ABOUT THE PARROT. WHAT IS THE POINT THEREIN? THIS IS AN IMPORTANT POINT THAT WILL BE FOUND IN MANY OF SKINNER’S WRITINGS.**

Parrots do not innately imitate sounds. Sounds do not inexorably evoke imitative sounds in the parrot. If anything is inherited, it is the capacity to be reinforced by producing sounds that were previously heard.

**11. WHAT IS THE MINIMAL SIZE OF THE ECHOIC OPERANT?**

In many cases, the individual sound (or phoneme) is the minimal unit. Children, upon hearing some stimulus, will reproduce it, sound by sound. However, the mimics may have even smaller units in their repertoires that include intonations, accents, etc. These allow him/her to echo novel sound patterns of great variety.

NOTE: Some echoic sounds may combine into larger units, such as the names of chemical compounds, technical terms, etc.

**12. WHAT ARE SELF ECHOICS?**

Echoing one's own speech. In its pathological form, palilalia: when a person echoes something heard, and then continues to repeat it.

**13. WHAT IS TEXTUAL BEHAVIOR? HOW IS IT MAINTAINED?**

"Reading". That is, vocal responding to nonauditory verbal stimuli: text, pictures, symbols, letters. There is no formal similarity between the stimulus and response; but, there is a point-to-point correspondence but in different dimensional systems. (e.g., the written letter A → "a", letter B → "b", etc.)

It is maintained by:

- A) Educational reinforcers that are conditioned in nature.
- B) Collateral effects of textual behavior may also provide automatic reinforcement: interesting reading, effects that are correlated with other reinforcements.
- C) Textual behavior may result in other, more effective verbal operants. For example, a dictionary may evoke textual behavior, which then sets up the acquisition of in-traverbals ("The definition of 'semantics' is...") Or, an illustrated dictionary may present pictures and text, such that the pictures will later be described.

**14. WHAT IS THE SMALLEST FUNCTIONAL UNIT?**

It may be very small, such as at the individual sound corresponding to each letter, or larger units may emerge that involve word combinations ("positive reinforcement"). However, if the text is not phonetic (e.g., picture), then no limit is present.

**15. SKINNER TALKS OF TWO IMPORTANT DIFFERENCES BETWEEN ECHOICS AND TEXTUAL THAT FOLLOW FROM THE FACT THAT THERE IS A DIFFERENCE IN**

**THE FORMAL SIMILARITY BETWEEN STIMULUS AND RESPONSE PRODUCT.  
WHAT ARE THEY?**

- A) Echoics can generally have a finer grained, smaller unit than textuials.
- B) Echoics provide for automatic reinforcement of closer and closer approximations to the correct sounds. Thus, the speaker “knows when he has echoed correctly”, but not so with textual behavior. Automatic reinforcement of reading interesting text may strengthen the textual behavior, but it does not differentially reinforce correct forms at the phonetic level. (there is no automatic reinforcement of correspondence between S and R).

**16. WHAT IS THE ROLE OF “SELF TEXTUAL BEHAVIOR?”**

We can create our text that will control our behavior at a later date. It is a relatively permanent product, unlike the effects of echoic behavior.

**17. WHAT IS TRANSCRIPTION?**

Copying written material or taking dictation. The speaker is creating a visual stimulus from a previous visual or auditory stimulus, respectively.

**18. IF BOTH THE STIMULUS AND RESPONSE PRODUCTS ARE IN THE SAME DIMENSION (I.E., COPYING TEXT), IS IT “SELF CORRECTING?”**

Yes. The speaker can compare both, and be differentially reinforced for closer and closer approximations.

**19. WHAT ARE INTRAVERBALS?**

Verbal behavior under the control of prior verbal stimuli, but without the point-to-point correspondence either within a dimension or across two dimensions.

**20. GIVE A RANGE OF EXAMPLES THAT ARE INTRAVERBAL.**

Long poems, history facts, math facts, greetings, small talk.

**21. SKINNER GOES ON TO DISCUSS CHAINS OF INTRAVERBALS. IS ANY ONE LINK**

**UNDER EXCLUSIVE CONTROL OF THE PREVIOUS? WHAT IS A “HAPLOLOGICAL ERROR?”**

Not typically. If we interrupt the chain, and then re-present the previous, it is often hard to get restarted. You often need a “running start” that involves several previous links.

A haplological error is when two links in a chain are the same, and arrival at the first link evokes behavior that occurs after the second. It is an “anticipatory” jump.

**22. HOW DOES SKINNER SEE “WORD ASSOCIATIONS?”**

Sequences of intraverbals.

**23. WHAT REINFORCERS MAINTAIN INTRAVERBALS?**

Like echoics and textuials, a form of conditioned generalized reinforcement.

NOTE: Skinner makes an important point about multiple control and multiple effects. That is, any given word may be evoked by a variety of variables, and any given word may in turn evoke a variety of responses, depending on other variables.

**24. WHAT IS “CONTIGUOUS USAGE?”**

When using a particular word, it is “advantageous” to have others readily available. For example, when talking about “lake”, it may be important to be able to say “sea” or “water” or “boat.” In behavioral terms, talking about lakes and saying other words that are related is differentially reinforced on many occasions.

**25. WHAT KINDS OF VARIABLES CAN DETERMINE THE RESPONSE TO A WORD(S)?**

- A) History of reinforcement of the speaker (e.g., med students will react to “administer” differently than law students)
- B) The size and combination of words. Larger, more complex statements will tend to evoke a narrower number of responses (e.g., “red” or “white” will evoke many responses, but “red, white, and \_\_\_\_” will evoke only one: blue!)

**26. IS THERE A MINIMAL UNIT OF INTRAVERBALS?**

No. The unit may be small sounds or larger patterns. However, there is no functional unity as in mimicry, and there is no point-to-point correspondence between the stimulus and response.

**27. HOW DOES SKINNER CLASSIFY TRANSLATION? GIVE AN EXAMPLE.**

As intraverbal behavior. A Spanish translator may hear English (discriminative stimulus – SD) and then provide Spanish words through intraverbals. Interestingly, the translator may respond to the translated language as a listener.

**28. WHAT ARE THE DYNAMIC PROPERTIES OF ECHOICS, TEXTUALS, AND INTRAVERBALS? WHY IS THIS?**

With a well-trained speaker, the speed or energy tends to be uniform without large variations. One reason is that the reinforcers are conditioned generalized, and therefore strong motivational variations may be absent. However, dynamic properties can be evoked in echoics (they will have the properties) and to a lesser extent textuals (using underlines, etc.)

**29. IF THERE IS SOME KIND OF “MEANING” TO THESE VERBAL BEHAVIOR UNDER THE CONTROL OF VERBAL STIMULI, WHAT IS IT?**

Between the response and the source of the verbal stimulus presented by the original speaker. Again, meaning is simply the variable (s) responsible for the emission of the response.





## Chapter 5

### *The Tact*

1. WHAT IS A TACT? DOES IT “REFER” TO THE EVOCATIVE STIMULUS?
  
2. WHERE IS THE UNIQUE CONTROL IN THE TACT?
  
3. WHAT IS A PURE TACT?
  
4. CHECK OUT THE FIGURES ON PAGES 84 AND 85. BE ABLE TO DIAGRAM TACTS USING A SIMILAR LAYOUT. WHAT IS THE EVOCATIVE STIMULUS IN THESE FIGURES?
  
5. HOW DOES SKINNER ACCOUNT FOR THE LISTENER WHO PROVIDES THE CONDITIONED GENERALIZED REINFORCEMENT?
  
6. ON PAGE 86, SKINNER IS TALKING ABOUT THE LISTENER’S REACTION TO A TACT. THE FIRST QUESTION HE ADDRESSES IS WHETHER A TACT “STANDS FOR SOMETHING” OR IS A SUBSTITUTE FOR THE THING IT DESCRIBES. DOES IT? IS LOOKING FOR THE THING TACTED A REFLEX?
  
7. WHAT VARIABLES WILL DETERMINE WHETHER THE LISTENER WILL TAKE EFFECTIVE ACTION AFTER HEARING THE TACT?

8. ON PAGE 89, SKINNER TALKS OF THE STIMULUS CONTROL OF THE TACT. START WITH THE BASICS: IS THERE AUDIENCE CONTROL IN THE TACT? BUT DO WE ALWAYS TACT IN THE PRESENCE OF AN AUDIENCE? WHAT MIGHT INFLUENCE SUCH TACTING?
  
9. TACTS ARE REINFORCED BY GENERALIZED CONDITIONED REINFORCERS, AND THEREFORE, TACTS ARE RELATIVELY FREE OF MOMENTARY EOs OF THE SPEAKER. THIS IS SIMILAR TO EHOICS, TEXTUAL, AND INTRAVERBALS. ARE TACTS THEREFORE “DYNAMICALLY FLAT?”
  
10. SKINNER NOW GOES ON TO DISCUSS EXTENDED TACTS. BRUSH UP ON THE CONCEPT OF STIMULUS GENERALIZATION, AS THIS WILL AID YOU IN UNDERSTANDING THIS SECTION. WHAT IS GENERIC EXTENSION?
  
11. WHEN AN EXTENDED TACT IS REINFORCED, WOULD FUTURE OCCURRENCES BE CLASSIFIED AS EXTENSIONS?
  
12. NOTE: ON PAGE 92, SKINNER TALKS ABOUT BEHAVIOR COMING UNDER EVOCATIVE CONTROL OF A SINGLE PROPERTY. THIS WILL BE DISCUSSED FURTHER IN THE SECTION ON ABSTRACTION, WHICH, YOU WILL SEE, REQUIRES THE ACTIONS OF A VERBAL COMMUNITY.
  
13. WHAT IS METAPHORICAL EXTENSION? GIVE AN EXAMPLE.
  
14. WHEN A METAPHOR IS REINFORCED, IS IT STILL A METAPHOR?

15. EXPLAIN THE POINT ABOUT THE “EYE OF THE NEEDLE” ON PAGE 94.
  
16. CONTRAST THE NUMBER OF DEFINING STIMULUS PROPERTIES IN GENERIC VS. METAPHORICAL EXTENSION.
  
17. WHAT DO TACTS AND METAPHORS TELL US ABOUT CURRENT CONDITIONS AND THE SPEAKER?
  
18. ON PAGE 96, SKINNER TALKS ABOUT WHY METAPHORS OCCUR. GIVE A COUPLE OF REASONS.
  
19. GIVE AN EXAMPLE OF AN APPARENT METAPHOR THAT REALLY INVOLVES MOSTLY INTRAVERBALS.
  
20. CHECK OUT THE FIRST PARAGRAPH ON PAGE 97. EXPLAIN WITH AN EXAMPLE HOW AN EXTENSION OCCURS WITHOUT A COMMON ELEMENT BETWEEN THE STIMULI.
  
21. ON THE BOTTOM OF 97 AND TOP OF 98, SKINNER MAKES THE CASE FOR THE UTILITY OF METAPHOR. WHAT ARE THE MAIN POINTS?

22. COMPARE SCIENCE AND LITERATURE TO TACT EXTENSIONS.
  
  
  
  
  
  
  
  
  
  
23. WHAT IS METONYMY? GIVE AN EXAMPLE.
  
  
  
  
  
  
  
  
  
  
24. HOW COMMON ARE METONYMICAL EXTENSIONS? WHY? CAN THEY BECOME PART OF STANDARD USAGE?
  
  
  
  
  
  
  
  
  
  
25. WHAT ARE SOLECISTIC EXTENSIONS? GIVE AN EXAMPLE.
  
  
  
  
  
  
  
  
  
  
26. ON PAGE 103, SKINNER TACKLES THE PRACTICE OF “NAMING” OR NOMINATION. FIRST, WHAT IS A PROPER NAME?
  
  
  
  
  
  
  
  
  
  
27. WHERE DO PROPER NAMES COME FROM?
  
  
  
  
  
  
  
  
  
  
28. EXPLAIN HOW NAMES THAT RESULT FROM METAPHOR ARE MORE EASILY REMEMBERED.
  
  
  
  
  
  
  
  
  
  
29. IN THE NEXT SECTION, SKINNER TALKS ABOUT GUESSING. CAN A RESPONSE BE CLASSIFIED AS A TACT IF IT IS NOT EVOKED BY SOME ENVIRONMENTAL STIMULUS? WHAT, THEN, IS A GUESS?

30. WHAT KIND OF VARIABLES WILL DETERMINE TACT EXTENSIONS? CAN SPEAKERS INDICATE RESPONSE PROBABILITY IN EMITTING A TACT?
31. NOTE: IN THE FIRST PARAGRAPH OF "ABSTRACTION" SKINNER TALKS OF THE PROBLEM OF UNCHECKED TACT EXTENSIONS. IT WOULD BE A REAL PROBLEM IN SCIENCE. IMAGINE IF CBAs OR CABAs NAMED A VARIETY OF CONSEQUENCES AND STIMULI AS "REINFORCERS" BECAUSE THEY HAD SOME DISTANT SIMILARITY TO A REAL REINFORCER (THEY WERE CONSEQUENCES, OR THEY MADE KIDS SMILE).
32. HOW DOES THE VERBAL COMMUNITY CHECK THE PROCESS OF TACT EXTENSIONS IN #31? GIVE AN EXAMPLE.
33. AT THE LAST PARAGRAPH OF PAGE 107, SKINNER TALKS ABOUT METAPHOR AND STIMULUS INDUCTION. WHAT IS THIS TERM? WHAT IS THE POINT HERE?
34. IS AN ABSTRACTION EVER "PURE" IN THE SENSE THAT IT IS CONSISTENTLY AND FOREVER EVOKED ONLY BY A SINGLE PROPERTY?
35. CAN ABSTRACTION BE CONDITIONED IN THE PHYSICAL ENVIRONMENT? IS AN ABSTRACTION ONLY EVOKED BY A SINGLE PROPERTY?

36. NOTE: ON PAGE 110, SKINNER IS TALKING ABOUT OBJECT-TERMS AND PROPERTY-TERMS. SIMPLY PUT, THE FORMER IS A TACT EVOKED BY THE PRESENCE OF SOME OBJECT OR THING, SUCH AS “CHAIR”; THE LATTER IS EVOKED BY SOME SINGLE PROPERTY SUCH AS “RED”. THE FORMER TEND TO BE ACQUIRED FIRST, BUT THE PROCESS IS THE SAME.
37. ON PAGE 111, SKINNER GOES ON TO TALK ABOUT THE PROBLEMS IN TRYING TO IDENTIFY THE DEFINING PROPERTIES OF OBJECTS, OR IN TRYING TO DEFINE THEIR “MEANING.” HE CONCLUDES WITH THE SOLUTION ON PAGE 113. WHAT IS THIS SOLUTION?
38. WHAT IS THE DIFFERENCE BETWEEN A PROPER TACT AND COMMON TACT?
39. RECALL SKINNER’S POINT THAT TO CONDITION ABSTRACTIONS, A VERBAL COMMUNITY IS REQUIRED. SO, HOW DOES THE VERBAL COMMUNITY DO THIS? WHAT DETERMINES THE STRENGTH OF AN ABSTRACTION?
40. NOTE: ON PAGE 114, SKINNER MOVES ON TO THE PROBLEM OF “REFERENCE.” HE IS ESSENTIALLY EXAMINING THE TRADITIONAL PROBLEMS OF “WHAT THINGS STAND FOR” OR WHAT A SPEAKER “MEANS.” HIS PRESENTATION IS TYPICAL OF HIS WRITING, IN THAT HE TALKS OF TRADITIONAL TREATMENTS, AND THEN QUICKLY DISPENSES WITH THEM AND PRESENTS THE BEHAVIORAL INTERPRETATION. THIS IS AT THE TOP OF 115. IN SHORT, REFERENCE OR MEANING IS SIMPLY DETAILS OF THE THREE-TERM CONTINGENCY.

41. THERE IS A NICE SUMMARY OF EHOICS, TEXTUALS, INTRAVERBALS, AND TACTS ON PAGE 116. GIVE AN OVERVIEW OF THIS, PAYING PARTICULAR ATTENTION TO HIS POINT ABOUT THE MINIMAL REPERTOIRE.
42. SKINNER AGAIN EXAMINES THE PROBLEM OF WHAT A TERM “REFERS TO.” CHECK OUT THE DISCUSSION ON PAGE 117. WHAT IS HIS POINT?
43. CHECK OUT THE TABLE ON PAGE 118. IT PRESENTS COMBINATIONS OF PAIRS OF TACTS. EACH CELL REPRESENTS A COMBINATION OF THE KIND OF STIMULI (SAME, SIMILAR, OR DIFFERENT) AND KIND OF RESPONSE (SAME, SIMILAR, OR DIFFERENT). SOME OF THE CELLS REPRESENT WELL-KNOWN COMBINATIONS, SUCH AS SYNONYMS AND HOMONYMS. PROVIDE EXAMPLES FOR EACH CELL.

NOTE THAT SKINNER CONSIDERS CELLS 1 AND 9 TO BE IDEAL. WHY IS THAT?

44. SKINNER GOES ON TO TALK OF SMALLEST FUNCTIONAL UNITS. SUMMARIZE THE POINTS BY IDENTIFYING VARIOUS SIZES OF FUNCTIONAL UNITS.
45. SKINNER CONSIDERS THE “MORPHEME” BUT QUICKLY REJECTS IT AS A FUNCTIONAL UNIT. HE THEN OFFERS THE “ROOT” AND PREFIXES/SUFFIXES AS VERBAL UNITS. GIVE AN EXAMPLE.



46. THERE IS AN INTERESTING POINT ABOUT “SP”. WHAT IS IT?
47. SO, HOW DOES SKINNER CONCLUDE HIS DISCUSSION OF MINIMAL UNITS OF TACTS?
48. IN SKINNER’S VIEW, WHAT WOULD THE “IDEAL LANGUAGE” BE? IS IT POSSIBLE?
49. NOTE: SKINNER CLASSIFIES “MODEL BUILDING” AS VERBAL BEHAVIOR BECAUSE ITS REINFORCEMENT IS MEDIATED BY OTHER PEOPLE. HE ALSO DISCUSSES POINTING AND GESTURING AS A FORM OF VERBAL BEHAVIOR.
50. SKINNER GOES INTO GREAT IN TALKING ABOUT ONOMATOPOEIA. FIRST, WHAT IS THIS?
51. WHERE MAY THESE COME FROM?

52. ON PAGE 127, SKINNER DISCUSSES THE DIFFERENT KINDS OF TACTS EMITTED BY SCIENTISTS AND POETS TO ESSENTIALLY THE SAME SITUATIONS. WHY IS THIS?
53. ON THE BOTTOM OF PAGE 127, SKINNER SUMMARIZES THE PROBLEM OF REFERENCE. HE FIRST SPEAKS OF GENERALIZATION. HOW IS THIS APPLICABLE?
54. SKINNER THEN TALKS OF ABSTRACTION AND APPEALS TO THREE TERMS. WHAT ARE THEY? HOW DOES THIS RELATE TO CONCEPT FORMATION?
55. SKINNER THEN TALKS OF A CONTINUUM. WHAT IS THIS?
56. SKINNER CONCLUDES THIS SECTION (THANKFULLY!) BY DISCUSSING THE “REFERENTS” OF THE OTHER CLASSES. FIRST, HE SUGGESTS THAT THE SEARCH FOR EVERY REFERENT OF EVERY VERBAL BEHAVIOR IS FRUITLESS AND TIME-KILLING. BUT, HE DOES PRESENT SOME GENERAL POINTS ABOUT SOME KINDS OF VERBAL BEHAVIOR THAT MIGHT SEEM TO BE TACTS. SPECIFICALLY, THE BEHAVIOR OF HISTORIANS AND THAT IN SCIENTIFIC DISCOURSE IS OFTEN INTRAVERBAL. GIVE AN EXAMPLE.
57. THE NEXT SECTION DEALS WITH THE PROBLEM OF TACTING PRIVATE EVENTS. WHAT IS THE PROBLEM HEREIN?

58. HOW CAN THE VERBAL COMMUNITY ESTABLISH TACTS TO PRIVATE EVENTS?
59. CHECK OUT THE PASSAGE FROM *SCIENCE AND HUMAN BEHAVIOR*. SKINNER'S FIRST POINT HAS TO DO WITH "OTHER VARIABLES" THAT MAY WEAKEN THE STIMULUS CONTROL OF PRIVATE EVENTS. WHAT DOES THIS MEAN?
60. SKINNER'S SECOND POINT IS A FUNDAMENTAL BEHAVIORAL POINT. IT HAS TO DO WITH WHETHER OR NOT WE "NATURALLY" COME UNDER THE CONTROL OF STIMULI. EXPLAIN THIS POINT.
61. SKINNER NOTES THAT A GIVEN TACT OF PRIVATE STIMULI MAY INVOLVE A MIXTURE OF STIMULI, BOTH PUBLIC AND PRIVATE. ANALYZE "MY HEART IS RACING".
62. ON PAGE 136, SKINNER TALKS OF TACTS THAT MAY INVOLVE PUBLIC PROPERTIES, BUT ALSO INVOLVE PRIVATE EVENTS. GIVE AN EXAMPLE:
63. NOTE: ON THE BOTTOM OF 137 AND 138, SKINNER CAUTIONS THAT PRIVATE STIMULI ARE NOT NECESSARILY INVOLVED IN MANY SITUATIONS. HE OFFERS STRAIGHTFORWARD, MORE PARSIMONIOUS *EXPLICANDA* FOR HIS EXAMPLES.

64. WHAT IS “ANIMISM?” (SOMETIMES CALLED ANTHROPOMORPHIZING)
65. THE NEXT SECTION HAS TO DO WITH TACTING ONE’S OWN BEHAVIOR. THE FIRST SET OF EXAMPLES INVOLVE TACTING ONE’S CURRENT BEHAVIOR. HOW DOES THIS HAPPEN? WHAT ARE THE RANGE OF STIMULI THAT EVOKE THE BEHAVIOR?
66. EXPLAIN THE POINT ABOUT THE DIFFERENCE BETWEEN THE TACT “RED” AND “I SEE RED”.
67. SKINNER CONCLUDES THIS SECTION WITH TWO POINTS. WHAT ARE THEY?
68. THE NEXT SECTION INVOLVES RESPONSES TO COVERT BEHAVIOR. FIRST, WHY MIGHT COVERT BEHAVIOR OCCUR? WHY IS IT MAINTAINED?
69. HOW CAN SUCH BEHAVIOR BE MAINTAINED?
70. THE NEXT SECTION DISCUSSES TACTS TO PRIOR BEHAVIOR. HOW IS THIS ACQUIRED?

71. NEXT UP IS RESPONDING TO POTENTIAL BEHAVIOR. FIRST, WHAT KIND OF BEHAVIOR IS THIS?
72. SKINNER ALSO TALKS ABOUT BEHAVIOR THAT CAN NOT BE EXECUTED, SUCH AS SKIING WITHOUT SNOW. IDENTIFY THE POTENTIAL EVOCATIVE STIMULI. THIS ANALYSIS CAN ALSO BE APPLIED TO RESPONDING TO FUTURE BEHAVIOR.
73. NOTE: THE NEXT SECTION (RESPONSES TO THE VARIABLES CONTROLLING BEHAVIOR) INVOLVES TACTING INDEPENDENT VARIABLES, NOT DEPENDENT VARIABLES. SKINNER CAUTIONS THE READER TO AVOID INFERRING PURPOSE TO BEHAVIOR (SOMETIMES CALLED “TELEOLOGICAL” *EXPLICANDA*). ON PAGE 145, HE TAKES UP “SHOULD” OR “OUGHT TO” STATEMENTS. THIS DISCUSSION IS FOUND IN *SCIENCE AND HUMAN BEHAVIOR*, AND PROVIDES A BEHAVIORAL INTERPRETATION OF “ETHICAL” PRONOUNCEMENTS. THUS, “YOU SHOULD TELL THE TRUTH” IS EQUIVALENT TO “TELLING THE TRUTH WILL PROVIDE REINFORCEMENT YOUR PARENTS AND TEACHERS”. BE ABLE TO PROVIDE SIMILAR EXPLANATIONS TO ADVICE SUCH AS “YOU SHOULD TAKE AN UMBRELLA.”
74. THE FINAL SECTION DEALS WITH TACTING THE PROBABILITY OF BEHAVIOR. WHAT MIGHT BE THE CONTROLLING VARIABLES?
75. THE CHAPTER CONCLUDES WITH AN IMPORTANT PRACTICAL POINT. WHAT IS IT?



*CHAPTER FIVE. ANSWERS.*

**1. WHAT IS A TACT? DOES IT “REFER” TO THE EVOCATIVE STIMULUS?**

Verbal behavior that is evoked by some feature of the nonverbal physical environment.

No, it does not refer to anything in a technical sense. Instead, that evocative stimulus merely strengthens the response because of a reinforcement history.

**2. WHERE IS THE UNIQUE CONTROL IN THE TACT?**

In the evocative stimulus. There is no unique evocative control by establishing operation (EOs), unlike in the mand. Skinner makes an interesting point about mands and tacts:

...the mand permits the listener to infer something about the condition of the speaker regardless of the external circumstances, while the tact permits him to infer something about the circumstances regardless of the condition of the speaker. (p. 83)

**3. WHAT IS A PURE TACT?**

A tact that presumably is not influenced by any EO, which would result from conditioned generalized reinforcement. Skinner suggests this probably never happens, but when a tact does occur, its form is definitely determined solely by the environmental feature.

**4. CHECK OUT THE FIGURES ON PAGES 84 AND 85. BE ABLE TO DIAGRAM TACTS USING A SIMILAR LAYOUT. WHAT IS THE EVOCATIVE STIMULUS IN THESE FIGURES?**

An object and audience.

**5. HOW DOES SKINNER ACCOUNT FOR THE LISTENER WHO PROVIDES THE CONDITIONED GENERALIZED REINFORCEMENT?**

He talks of “educational reinforcement, which is a reinforcement that is given to strengthen and maintain a given form of behavior in the speaker. Thus, the listener gives these kinds of reinforcers because he/she is paid to do it (as a teacher), or receives some other form of approval, etc, from the community. (Praise is given to parents for their children’s repertoire).



Or, in other cases, the speaker may tact events that the listener has no contact with. Then, the listener may be brought into contact, and gain reinforcers unrelated to the speaker behavior; then, the listener may reinforce the tact because it has allowed access to these reinforcers. For example, the speaker may answer the phone, and tell the listener “phone for you!” The listener may then answer the phone, and obtain reinforcements from the call, and then say “thank you for getting the phone” to the original speaker. This would, then, reinforce the tact. In a sense, tacts extend the listener’s contact with the world, and are therefore maintained for that reason.

Finally, tacts may allow the speaker to be controlled by stimuli in the environment. For example, those who learn to tact their own private behavior, such as anxiety, may be able to respond to it more effectively. Same goes for external stimuli. If you are able to tact an external stimulus, you may be able to react to it more effectively. This may be related, or the same as, “awareness.”

- 6. ON PAGE 86, SKINNER IS TALKING ABOUT THE LISTENER’S REACTION TO A TACT. THE FIRST QUESTION HE ADDRESSES IS WHETHER A TACT “STANDS FOR SOMETHING” OR IS A SUBSTITUTE FOR THE THING IT DESCRIBES. DOES IT? IS LOOKING FOR THE THING TACTED A REFLEX?**

No. If someone tacts “candy,” he/she can not consume the tact. Moreover, in response to Russell’s argument, Skinner also opines that we don’t respond to the tact in the exact way that we respond to the thing tacted. Thus, we react differently upon hearing the tact “candy” than to the candy itself.

No. It is a discriminated operant reinforced by the sight of the object tacted.

- 7. WHAT VARIABLES WILL DETERMINE WHETHER THE LISTENER WILL TAKE EFFECTIVE ACTION AFTER HEARING THE TACT?**
- A) Precision of tact (are there sufficient details to evoke some response)
  - B) Accuracy of tact (are the details correct? Is there correspondence between the environment and the tact?)
  - C) History with the speaker
  - D) Whether the verbal behavior is a tact, or perhaps echoic, textual, or intraverbal.

- 8. ON PAGE 89, SKINNER TALKS OF THE STIMULUS CONTROL OF THE TACT. START WITH THE BASICS: IS THERE AUDIENCE CONTROL IN THE TACT? BUT DO WE ALWAYS TACT IN THE PRESENCE OF AN AUDIENCE? WHAT MIGHT INFLUENCE SUCH TACTING?**

Yes, there is audience control in tacting, as there is in other forms of verbal behavior. However, we do not always tact in the presence of an audience, because there are many environmental characteristics that are not novel, and therefore not reinforced in the verbal community. Thus, one variable is the novelty of the characteristic. Moreover, the listener may mand for a particular tact (“what is that?”), and this will strengthen the tact.

- 9. TACTS ARE REINFORCED BY GENERALIZED CONDITIONED REINFORCERS, AND THEREFORE, TACTS ARE RELATIVELY FREE OF MOMENTARY EOs OF THE SPEAKER. THIS IS SIMILAR TO EHOICS, TEXTUAL, AND INTRAVERBALS. ARE TACTS THEREFORE “DYNAMICALLY FLAT?”**

No. Skinner suggests that tacts can vary more in speed, intensity, and clarity, depending on the stimuli being tacted and the occasion. (a speaker may excitedly say “There is a shooting star!”)

- 10. SKINNER NOW GOES ON TO DISCUSS EXTENDED TACTS. BRUSH UP ON THE CONCEPT OF STIMULUS GENERALIZATION, AS THIS WILL AID YOU IN UNDERSTANDING THIS SECTION. WHAT IS GENERIC EXTENSION?**

Step 1 → A tact is reinforced in the presence of a particular stimulus with a defining characteristic(s)

For example, being reinforced for saying “chair” in the presence of a chair

Step 2 → The defining characteristic is present in a new stimulus, and evokes the tact  
A different looking chair is presented, and the person tacts “chair”

Thus, in generic extension, a tact comes under evocative control of a stimulus with a necessary characteristic. Then, that characteristic is present in a new stimulus, and the tact is evoked.

- 11. WHEN AN EXTENDED TACT IS REINFORCED, WOULD FUTURE OCCURRENCES BE CLASSIFIED AS EXTENSIONS?**

No. The stimulus is no longer novel, and the stimulus class has been expanded (e.g.,

there may be several kinds of chairs that evoke “chair”). Thus, the strength of the tact can be attributed directly to a reinforcement history, not an extension.

- 12. NOTE: ON PAGE 92, SKINNER TALKS ABOUT BEHAVIOR COMING UNDER EVOCATIVE CONTROL OF A SINGLE PROPERTY. THIS WILL BE DISCUSSED FURTHER IN THE SECTION ON ABSTRACTION, WHICH, YOU WILL SEE, REQUIRES THE ACTIONS OF A VERBAL COMMUNITY.**

- 13. WHAT IS METAPHORICAL EXTENSION? GIVE AN EXAMPLE.**

When a response is evoked by a property that was present during previous reinforcement, but was not the defining characteristic (it was not the property that was part of the contingency arranged by the verbal community)

Skinner’s example involved a child who upon drinking soda water for the first time, reported that it tasted “like my foot’s asleep.” The child originally learned to say “my foot’s asleep” in the presence of two stimuli: immobility and pinpoint stimulation. The VC used immobility as the property for reinforcement, but the pinpoint stimulation was correlated. Then, when it occurred in another situation, it evoked the response.

- 14. WHEN A METAPHOR IS REINFORCED, IS IT STILL A METAPHOR?**

No. When the response enters into a three-term contingency, its strength can be traced to a history of reinforcement. Skinner talks about the metaphor “he is like a mouse.” Originally, it may have been a metaphor, as the person may have been timid or quiet, which are typical characteristics of mice but not the defining characteristics. But, a timid or shy person may now be called “mouse” because that is a simple tact for such a person. These characteristics are now defining characteristics for calling someone a mouse.

- 15. EXPLAIN THE POINT ABOUT THE “EYE OF THE NEEDLE” ON PAGE 94.**

Let us say that a person learns to tact “eye” to the opening of a needle. Interestingly, the opening has a geometrical shape similar to an animal’s eye. Thus, this similarity (although not a defining element) may serve to provide supplementary strength to the response “eye”, thus making the learning process faster and resistant to other tacts.

**16. CONTRAST THE NUMBER OF DEFINING STIMULUS PROPERTIES IN GENERIC VS. METAPHORICAL EXTENSION.**

In generic, the number of defining properties remains unchanged, although the range of effective stimuli increases (learning to tact a wider array of animals as “dog”, but the defining feature of “dog” remains the same). In metaphor, the number of defining properties increases as more and more metaphors are reinforced and therefore “stabilized.”

**17. WHAT DO TACTS AND METAPHORS TELL US ABOUT CURRENT CONDITIONS AND THE SPEAKER?**

Tacts tell us about current conditions, but very little about the speaker. In metaphor, the responses were acquired under other conditions, and hypotheses may be made about them. For example, if a speaker says that their friend “hissed like a snake”, we may infer that the speaker has a history with respect to snakes (esp those that “hiss”).

**18. ON PAGE 96, SKINNER TALKS ABOUT WHY METAPHORS OCCUR. GIVE A COUPLE OF REASONS.**

- A) First, the literary community encourages them.
- B) Second, metaphors occur when other behavior is weak. Thus, in the example in #17, the speaker may say “hissed like a snake” because 1) he wanted to say something about the person and 2) more precise tacts were unavailable or weak

**19. GIVE AN EXAMPLE OF AN APPARENT METAPHOR THAT REALLY INVOLVES MOSTLY INTRAVERBALS.**

In the metaphor “...is bright as night as dark”, a given variable strengthened “bright” which then evoked “night and dark” as intraverbals.

**20. CHECK OUT THE FIRST PARAGRAPH ON PAGE 97. EXPLAIN WITH AN EXAMPLE HOW AN EXTENSION OCCURS WITHOUT A COMMON ELEMENT BETWEEN THE STIMULI.**

There may be an extension if both stimuli have a common effect on the speaker. Thus, “Juliet is the sun” may occur because to Romeo, Juliet has an effect on him that is the same as the effect of the sun (they both glow!). Or, “his mood is black as thunder clouds” may occur because seeing the person has an effect that is similar to seeing thunder clouds.

**21. ON THE BOTTOM OF 97 AND TOP OF 98, SKINNER MAKES THE CASE FOR THE UTILITY OF METAPHOR. WHAT ARE THE MAIN POINTS?**

- A) When a tact is available, metaphor may be more effective because it may be more familiar, and may evoke desired emotional responses in the listener.
- B) Allows recombination of properties
- C) If no tact is available, it allows some kind of description of current conditions. Skinner makes that point that in psychology, effective ways of describing behavior were, until recently, unavailable. This is where Literature stepped in and provided colorful, descriptive metaphors. For example, one writer compared personalities to different animals. Or, mythology gives us “herculean tasks”.

**22. COMPARE SCIENCE AND LITERATURE TO TACT EXTENSIONS.**

Science is associated with generic extensions (and tacts), and literature is more readily associated with metaphors.

**23. WHAT IS METONYMY? GIVE AN EXAMPLE.**

An extension in which a tact occurs, but the defining element is absent, and the only elements that are present are those which may sometimes accompany the defining element. The relation is often purely accidental, and for that reason, may be confusing to the listener.

E.g.: “The White House denied the rumor.” In this case, the President denied the rumor, but the two are often associated.

**24. HOW COMMON ARE METONYMICAL EXTENSIONS? WHY? CAN THEY BECOME PART OF STANDARD USAGE?**

Quite rare. The controlling and contingent (defining) properties are so loosely associated that the response is of little value.

Yes, they can be used in the standard vernacular. Like metaphors, if they become reinforced by the verbal community, they are no longer metonymical extensions.

**25. WHAT ARE SOLECISTIC EXTENSIONS? GIVE AN EXAMPLE.**

They are another form of generalization (like metaphor and metonymy), but an even more extreme form. The evocative properties are distantly related to the defining

feature, or they are perhaps only similar for irrelevant reasons. These are often called “malaprops” after Mrs. Malaprop from *The Rivals*. Such extensions are typically useless, and in some cases, Skinner claims, are dangerous.

E.g.: You go first, and I will precede you.

Or, instead of saying “self deprecating statements” you may say “self defecating statements”

**26. ON PAGE 103, SKINNER TACKLES THE PRACTICE OF “NAMING” OR NOMINATION. FIRST, WHAT IS A PROPER NAME?**

A name that is reinforced only in the presence of a particular person or thing.

**27. WHERE DO PROPER NAMES COME FROM?**

- A) They could be surviving tacts – “The Little Church Around the Corner”
- B) Tact extension - e.g., a child is named after another person because the child has certain features that are similar to the person. This would be metaphor.
- C) A name may be chosen to add “prestige” to the child

**28. EXPLAIN HOW NAMES THAT RESULT FROM METAPHOR ARE MORE EASILY REMEMBERED.**

Names that are metaphor are evoked in part by some feature of the person. Thus, upon meeting the person, the sight of the person and the evocative characteristics related to the name may strengthen saying the correct name. Similarly, literature provides many examples. Skinner cites “Mr. Quiverful” who has a large family, and his name derives strength from the large number of children that he has.

NOTE: Memory experts may change a proper name to a description of the person to be named. For example, let us say you are introduced to a guy named “Stanley”, who has been berating you in a meeting. Upon hearing his name, you may say to yourself “his name is ‘Slam-me’” as way to remember his name.

**29. IN THE NEXT SECTION, SKINNER TALKS ABOUT GUESSING. CAN A RESPONSE BE CLASSIFIED AS A TACT IF IT IS NOT EVOKED BY SOME ENVIRONMENTAL STIMULUS? WHAT, THEN, IS A GUESS?**

No. A tact is actually a relation between a stimulus and response, and absent such a relation, there can not be a tact.

However, guesses are sometimes tacts. If you guess who sings a particular song, there may be a very subtle evocative stimulus in the music that the speaker may not even realize. Or in other kinds of guesses, the guess may be an echoic or intraverbal. Skinner talks about responding to “heads or tails”. In this situation, the person may simply echo “tails”.

**30. WHAT KIND OF VARIABLES WILL DETERMINE TACT EXTENSIONS? CAN SPEAKERS INDICATE RESPONSE PROBABILITY IN EMITTING A TACT?**

- A) Stimulus clarity
- B) Motivational variables (these must be strong in metonymy and guessing)
- C) Resemblance of the present situation to the original conditioning situation(s)

Yes. Speakers often say “sort of” or “like” in emitting a tact.

**31. NOTE: IN THE FIRST PARAGRAPH OF “ABSTRACTION” SKINNER TALKS OF THE PROBLEM OF UNCHECKED TACT EXTENSIONS. IT WOULD BE A REAL PROBLEM IN SCIENCE. IMAGINE IF CBAs OR CABAs NAMED A VARIETY OF CONSEQUENCES AND STIMULI AS “REINFORCERS” BECAUSE THEY HAD SOME DISTANT SIMILARITY TO A REAL REINFORCER (THEY WERE CONSEQUENCES, OR THEY MADE KIDS SMILE).**

**32. HOW DOES THE VERBAL COMMUNITY CHECK THE PROCESS OF TACT EXTENSIONS IN #31? GIVE AN EXAMPLE.**

By reinforcing responses that are evoked only in the presence of a particular property. For example, the behavioral community only reinforces the tact “positive reinforcement” if a consequence has been presented after a behavior, and the behavior is strengthened. It does not reinforce the tact “positive reinforcement is a kid smiles or if a kid asks for it or if he “seems to like it.” (These elements often accompany reinforcers, but are not defining features - thus, the tact would be a metaphor).

**33. AT THE LAST PARAGRAPH OF PAGE 107, SKINNER TALKS ABOUT METAPHOR AND STIMULUS INDUCTION. WHAT IS THIS TERM? WHAT IS THE POINT HERE?**

Stimulus induction is another term for generalization. His point is that if metaphor is attributed to some special mental process or ability, then we will miss the important behavioral process of generalization. Moreover, even more extravagant mental processes will be offered to explain abstraction, and the basic procedures that produce it will be overlooked.

**34. IS AN ABSTRACTION EVER “PURE” IN THE SENSE THAT IT IS CONSISTENTLY AND FOREVER EVOKED ONLY BY A SINGLE PROPERTY?**

Probably not. Skinner suggests that the differential reinforcement process (reinforce in the presence, extinguish in the absence) can not be implemented with all possible stimuli. Thus, there may be an occasional metaphor.

**35. CAN ABSTRACTION BE CONDITIONED IN THE PHYSICAL ENVIRONMENT? IS AN ABSTRACTION ONLY EVOKED BY A SINGLE PROPERTY?**

No. Skinner suggests that is only possible in a verbal community. He gives the example of “red”. We can teach children to tact “red” in the presence of all red objects. Although we may eat red apples, we don’t eat red books, red pencils, etc.

No. There evocative stimulus may actually be a collection of stimuli. For example, an “object” may evoke a tact that is controlled by a set of characteristics (“chair” or “bassett hound”).

**36. NOTE: ON PAGE 110, SKINNER IS TALKING ABOUT OBJECT-TERMS AND PROPERTY-TERMS. SIMPLY PUT, THE FORMER IS A TACT EVOKED BY THE PRESENCE OF SOME OBJECT OR THING, SUCH AS “CHAIR”; THE LATTER IS EVOKED BY SOME SINGLE PROPERTY SUCH AS “RED”. THE FORMER TEND TO BE ACQUIRED FIRST, BUT THE PROCESS IS THE SAME.**

**37. ON PAGE 111, SKINNER GOES ON TO TALK ABOUT THE PROBLEMS IN TRYING TO IDENTIFY THE DEFINING PROPERTIES OF OBJECTS, OR IN TRYING TO DEFINE THEIR “MEANING.” HE CONCLUDES WITH THE SOLUTION ON PAGE 113. WHAT IS THIS SOLUTION?**

Systematically manipulate stimuli, and note the presence or absence of the response. Those stimuli that evoke the response are the defining characteristics. Remember this, as it answers the question “What is meaning?” In short, the meaning of a word (e.g., tact) are the variables responsible for its emission.

**38. WHAT IS THE DIFFERENCE BETWEEN A PROPER TACT AND COMMON TACT?**

Proper tact: response is under the control of a specific person or thing (e.g., “Linda”, “Stacy”)

Common tact: response is under the control of a property that defines a class of persons or things (e.g., “girl”, “cats”)



**39. RECALL SKINNER'S POINT THAT TO CONDITION ABSTRACTIONS, A VERBAL COMMUNITY IS REQUIRED. SO, HOW DOES THE VERBAL COMMUNITY DO THIS? WHAT DETERMINES THE STRENGTH OF AN ABSTRACTION?**

It reinforces behavior that is evoked by a single property or class of properties, and presents an SD that sets the occasion for the abstraction to be reinforced. For example, you may ask "What kind of dog is that?" or "Tell me what color that is."

The history of reinforcement will determine the strength of an abstract tact. Some examples of the tact may have been reinforced, but perhaps they have been extinguished or punished. This combination will determine current probability.

**40. NOTE: ON PAGE 114, SKINNER MOVES ON TO THE PROBLEM OF "REFERENCE." HE IS ESSENTIALLY EXAMINING THE TRADITIONAL PROBLEMS OF "WHAT THINGS STAND FOR" OR WHAT A SPEAKER "MEANS." HIS PRESENTATION IS TYPICAL OF HIS WRITING, IN THAT HE TALKS OF TRADITIONAL TREATMENTS, AND THEN QUICKLY DISPENSES WITH THEM AND PRESENTS THE BEHAVIORAL INTERPRETATION. THIS IS AT THE TOP OF 115. IN SHORT, REFERENCE OR MEANING IS SIMPLY DETAILS OF THE THREE-TERM CONTINGENCY.**

**41. THERE IS A NICE SUMMARY OF ECHOICS, TEXTUALS, INTRAVERBALS, AND TACTS ON PAGE 116. GIVE AN OVERVIEW OF THIS, PAYING PARTICULAR ATTENTION TO HIS POINT ABOUT THE MINIMAL REPERTOIRE.**

- Echoics: The speaker can acquire echoics of various sizes. Over time, he/she acquires a minimal repertoire of small echoic units that approximate speech sounds. This allows the person to echo any new word or phrase.
- Textuals: Textual behavior may show various sizes, and the minimal repertoire approximates the individual letter such that untrained words will be read.
- Intraverbals: A given stimulus may evoke a variety of responses depending on the situation. Likewise, a given response will be evoked by a variety of stimuli. Thus, there is no correspondence between stimulus and response, and a minimal repertoire is lacking here. There are merely intraverbal tendencies as shown in word-association experiments.
- Tacts: There is no point-to-point correspondence in tacts, but the contingencies are more consistent than in intraverbals. Thus, there seems to be some kind of minimal repertoire.

**42. SKINNER AGAIN EXAMINES THE PROBLEM OF WHAT A TERM “REFERS TO.” CHECK OUT THE DISCUSSION ON PAGE 117. WHAT IS HIS POINT?**

The referent of a tact is the property or set of properties that evoke the response-again, the variables responsible for its emission.

**43. CHECK OUT THE TABLE ON PAGE 118. IT PRESENTS COMBINATIONS OF PAIRS OF TACTS. EACH CELL REPRESENTS A COMBINATION OF THE KIND OF STIMULI (SAME, SIMILAR, OR DIFFERENT) AND KIND OF RESPONSE (SAME, SIMILAR, OR DIFFERENT). SOME OF THE CELLS REPRESENT WELL-KNOWN COMBINATIONS, SUCH AS SYNONYMS AND HOMONYMS. PROVIDE EXAMPLES FOR EACH CELL.**

		Stimulus		
		Same	Similar	Different
Response	Same	1. Ideal Car → "Car" Car → "Car"	2. Wings → "Flight" Running away → "Flight" or Bassett hound → "Dog" Retriever → "Dog"	3. Someone running → "Fast" Secure object → "Fast" (Homonyms)
	Similar	4. Body of water → "Lake" Body of water → "Loch"	5. Someone in pain → "Moan" Someone in trouble → "Groan"	6. Dish → "Dish" Fish → "Fish"
	Different	7. Someone running → "Fast" Someone running → "Quick" (Synonyms)	8. Truck → "Truck" Car → "Car"	9. Ideal Dog → "Dog" Truck → "Truck"

**NOTE THAT SKINNER CONSIDERS CELLS 1 AND 9 TO BE IDEAL. WHY IS THAT?**

Because these are examples of each property having its own tact.

**44. SKINNER GOES ON TO TALK OF SMALLEST FUNCTIONAL UNITS. SUMMARIZE THE POINTS BY IDENTIFYING VARIOUS SIZES OF FUNCTIONAL UNITS.**

Words (“cat”), phrases (“under the rug”), and sentences (“How are you?”) may all have a functional unity controlled by particular stimuli. These may also be combined in various ways, such as when a child learns “I have candy” and “I have toy”, and then is able to tact “I have \_\_\_” depending on what he/she has. This repertoire of words and phrases allows the child to describe new, complex situations.

**45. SKINNER CONSIDERS THE “MORPHEME” BUT QUICKLY REJECTS IT AS A FUNCTIONAL UNIT. HE THEN OFFERS THE “ROOT” AND PREFIXES/SUFFIXES AS VERBAL UNITS. GIVE AN EXAMPLE.**

- Root: “Ped” as a root for pediatric, pediatrician
- Prefix: “Pre” as a prefix for pre-election, pre-dawn
- Suffix: “...ed” as a suffix for toasted, raked

**46. THERE IS AN INTERESTING POINT ABOUT “SP”. WHAT IS IT?**

An initial “sp” of many words in English have to do with a substance emanating from a source (spit, speak, spray) or radiating from a point (spoke, spur). Thus, “sp” may be functional unit evoked by a stimulus that involves emanation or radiation.

NOTE: However, just because a word begins with “sp” does not mean it belongs to the same operant class (spider, spirochete). Again, we can not reliably infer function by form, a point Skinner makes in many of his writings.

**47. SO, HOW DOES SKINNER CONCLUDE HIS DISCUSSION OF MINIMAL UNITS OF TACTS?**

It would be difficult, if not impossible, to define them all, unlike echoics and textuials. The properties of nature are very numerous, and it would therefore be difficult to list them all and assign different tacts to each. This fact gives rise to tact combinations.

**48. IN SKINNER’S VIEW, WHAT WOULD THE “IDEAL LANGUAGE” BE? IS IT POSSIBLE?**

One in which the same stimuli would be tacted the same, different stimuli would be tacted differently, and similar stimuli would be tacted similarly. For example, the

word for “house” would be composed of elements referring to size, color, style, materials used, etc. In another house, the elements would be re-combined to reflect the differences. Thus, every tact would be “proper noun.”

An ideal language is probably not possible, but we may approach it by having increasingly separate response units tied to various stimuli.

**49. NOTE: SKINNER CLASSIFIES “MODEL BUILDING” AS VERBAL BEHAVIOR BECAUSE ITS REINFORCEMENT IS MEDIATED BY OTHER PEOPLE. HE ALSO DISCUSSES POINTING AND GESTURING AS A FORM OF VERBAL BEHAVIOR.**

**50. SKINNER GOES INTO GREAT IN TALKING ABOUT ONOMATOPOEIA. FIRST, WHAT IS THIS?**

Onomatopoeia: a tact that has some of the formal (audible) properties of the evocative stimulus (a bee that “buzzes”).

**51. WHERE MAY THESE COME FROM?**

- A) An established echoic repertoire (of the speaker) extended to audible, but non-verbal stimuli.
- B) They may be more effective upon a listener because it resembles an auditory stimulus with which the listener is familiar.

In a sense, if there are 2 tacts available, then the one that will probably be emitted will have additional evocative strength from the echoic stimulation provided by the stimulus.

**52. ON PAGE 127, SKINNER DISCUSSES THE DIFFERENT KINDS OF TACTS EMITTED BY SCIENTISTS AND POETS TO ESSENTIALLY THE SAME SITUATIONS. WHY IS THIS?**

The respective repertoires are provided for different audiences, and therefore are under the control of different contingencies provided by the respective verbal communities.

- 53. ON THE BOTTOM OF PAGE 127, SKINNER SUMMARIZES THE PROBLEM OF REFERENCE. HE FIRST SPEAKS OF GENERALIZATION. HOW IS THIS APPLICABLE?**

When a response is reinforced in the presence of a stimulus, it may appear in the presence of other stimuli having the same properties. This is essentially metaphor, and reflects the generalization process. It is not necessary to appeal to other “special activities” by the speaker.

- 54. SKINNER THEN TALKS OF ABSTRACTION AND APPEALS TO THREE TERMS. WHAT ARE THEY? HOW DOES THIS RELATE TO CONCEPT FORMATION?**

- A) History of reinforcement
- B) Response
- C) The evocative stimulus

In concept formation, the “formation” occurs in #1, and the “concept” is the relation between #2 and #3. Note that current views of concept formation is that there is generalization within classes and discrimination between classes of stimuli. For example, if a person knows the concept of dog, then he/she can tact “dog” to any dog (complete generalization) and will not tact “dog” to a cat (discrimination)

- 55. SKINNER THEN TALKS OF A CONTINUUM. WHAT IS THIS?**

In tacts, there is a continuum beginning with Proper Names and ending with minimal abstractions (sometimes called “universals”). As we go through the continuum, the evocative stimuli become more difficult to identify.

- 56. SKINNER CONCLUDES THIS SECTION (THANKFULLY!) BY DISCUSSING THE “REFERENTS” OF THE OTHER CLASSES. FIRST, HE SUGGESTS THAT THE SEARCH FOR EVERY REFERENT OF EVERY VERBAL BEHAVIOR IS FRUITLESS AND TIME-KILLING. BUT, HE DOES PRESENT SOME GENERAL POINTS ABOUT SOME KINDS OF VERBAL BEHAVIOR THAT MIGHT SEEM TO BE TACTS. SPECIFICALLY, THE BEHAVIOR OF HISTORIANS AND THAT IN SCIENTIFIC DISCOURSE IS OFTEN INTRAVERBAL. GIVE AN EXAMPLE:**

Stimulus: When did Columbus cross the Atlantic?  
Response: 1492!

**57. THE NEXT SECTION DEALS WITH THE PROBLEM OF TACTING PRIVATE EVENTS. WHAT IS THE PROBLEM HEREIN?**

Tacts are normally reinforced by a verbal community that, along with the speaker, is exposed to a given set of stimuli (“There is the sun!” → “Yes, you are right”). But in private events, the verbal community has no direct contact with the evocative stimuli, and reinforcers can not be directly linked with them.

**58. HOW CAN THE VERBAL COMMUNITY ESTABLISH TACTS TO PRIVATE EVENTS?**

- A) Public accompaniments – “That hurts” is reinforced if the kid was struck by an object
- B) Collateral responses – “My tooth hurts” is reinforced if the kid is holding his jaw or grimacing
- C) Common properties – If the verbal community reinforces tacts to public stimuli, private stimuli may have 1 or more of the properties (as in metaphor or metonymy) For example, a kid may learn to tact “depression” upon seeing a dip in the road, and extend this to an “emotional dip”.

NOTE: Skinner points out that the metaphor could have occurred prior to the stimuli occurring privately. For example, objects that have geometrical shapes or that cut things easily may be called “sharp” (e.g., needles or knives). When they also produce sharp pain, they may also be called “sharp” (this would be metaphor or metonymy). Then, when private stimuli produce similar pain, it may be called “sharp” (this is probably generic extension).

- D) The verbal community may reinforce tacts to public stimuli, but the magnitude of the stimulus may decrease to such an extent that it is actually private, thus it still evokes the response.

E.g.: people may learn to tact their own public behavior. However, the behavior may decrease in magnitude, but the functional relations may survive.

**59. CHECK OUT THE PASSAGE FROM *SCIENCE AND HUMAN BEHAVIOR*. SKINNER'S FIRST POINT HAS TO DO WITH “OTHER VARIABLES” THAT MAY WEAKEN THE STIMULUS CONTROL OF PRIVATE EVENTS. WHAT DOES THIS MEAN?**

We may behave in ways that suggest private stimuli are evoking behavior, but this may not be so. E.g.: saying “I don’t feel well” to get out of class.

- 60. SKINNER'S SECOND POINT IS A FUNDAMENTAL BEHAVIORAL POINT. IT HAS TO DO WITH WHETHER OR NOT WE "NATURALLY" COME UNDER THE CONTROL OF STIMULI. EXPLAIN THIS POINT.**

We typically do not discriminate stimuli unless contingencies are in place to require it. For example, differential reinforcement results in organisms responding to differences in colors, shapes, sizes, sounds, etc. Without such a history, discrimination of such stimuli does not arise.

- 61. SKINNER NOTES THAT A GIVEN TACT OF PRIVATE STIMULI MAY INVOLVE A MIXTURE OF STIMULI, BOTH PUBLIC AND PRIVATE. ANALYZE "MY HEART IS RACING".**

"My heart is racing" may occur because:

- A) The community may reinforce because it knows there is an upcoming test
- B) The community may reinforce because you are pacing back and forth
- C) You learned to say "racing" to objects moving quickly, and your heart has some of the characteristics of things moving quickly

- 62. ON PAGE 136, SKINNER TALKS OF TACTS THAT MAY INVOLVE PUBLIC PROPERTIES, BUT ALSO INVOLVE PRIVATE EVENTS. GIVE AN EXAMPLE:**

"Familiar": When the tact "familiar" occurs, the speaker is responding to repeating stimuli. In other words, "I am being affected by this person in a way that is the same as I have been affected in the past". This property of repeating stimuli may then occur in the presence of other repeating stimuli.

When the tact "beautiful" occurs, it is probably not evoked by a single property of "beauty." Instead, the person is probably responding to private stimuli that are evoked by such objects. Moreover, these particular private stimuli may differ across people (beauty is in the eye of the beholder!).

Or, in projection, calling someone else "angry" may also be strengthened by your own private "angry" stimuli.

- 63. NOTE: ON THE BOTTOM OF 137 AND 138, SKINNER CAUTIONS THAT PRIVATE STIMULI ARE NOT NECESSARILY INVOLVED IN MANY SITUATIONS. HE OFFERS STRAIGHTFORWARD, MORE PARSIMONIOUS *EXPLICANDA* FOR HIS EXAMPLES.**

**64. WHAT IS “ANIMISM?” (SOMETIMES CALLED ANTHROPOMORPHIZING)**

Tacts learned to behavior that are metaphorically extended to inanimate objects (angry seas, angry clouds).

**65. THE NEXT SECTION HAS TO DO WITH TACTING ONE’S OWN BEHAVIOR. THE FIRST SET OF EXAMPLES INVOLVE TACTING ONE’S CURRENT BEHAVIOR. HOW DOES THIS HAPPEN? WHAT ARE THE RANGE OF STIMULI THAT EVOKE THE BEHAVIOR?**

The verbal community can easily reinforce tacts to current behavior because there are public stimuli available. However, there is a host of private accompaniments that may acquire control. For example, “I am driving a car” can be taught by the community because the behavior is in plain sight. But, the speaker may be able to emit that tact under the control of the private stimuli involved in driving (the feel of the car, steering wheel, etc.).

**66. EXPLAIN THE POINT ABOUT THE DIFFERENCE BETWEEN THE TACT “RED” AND “I SEE RED”.**

“Red” - an abstract tact under the control of the property of red that is maintained by the community.

“I see red” - A tact of activity of the speaker. The speaker is responding to events that accompany, or are similar to, events that are present when the community reinforces “red”. In other words, the speaker is responding to his/her own private “discriminative behavior”: the behavior of “seeing red”. This becomes especially important when the red stimulus is not physically present. In this case, traditional treatments would talk of an “image of red” (unlike the “sensation of red” when the red stimulus is present.)

**67. SKINNER CONCLUDES THIS SECTION WITH TWO POINTS. WHAT ARE THEY?**

- A) We can not condition abstractions to private stimuli.
- B) Discriminative control by private stimuli requires contingencies by the verbal community. Private stimuli may come to control behavior (learning to swing a golf club) through natural contingencies, “knowing” about such stimuli (being able to tact them) requires social reinforcement.



**68. THE NEXT SECTION INVOLVES RESPONSES TO COVERT BEHAVIOR. FIRST, WHY MIGHT COVERT BEHAVIOR OCCUR? WHY IS IT MAINTAINED?**

- A) Ease of execution
- B) Avoids punishment

It is maintained because the speaker can respond to it in effective ways

**69. HOW CAN SUCH BEHAVIOR BE MAINTAINED?**

- A) May be the same as overt behavior, but of a lower magnitude
- B) Common accompaniments with overt behavior (metonymy)

**70. THE NEXT SECTION DISCUSSES TACTS TO PRIOR BEHAVIOR. HOW IS THIS ACQUIRED?**

This is a special ability taught by the community, and is an example of tacting prior events. Presumably, the question (“What did you have for lunch yesterday?”) evokes stimuli (seeing yourself eating lunch) that are then tacted.

**71. NEXT UP IS RESPONDING TO POTENTIAL BEHAVIOR. FIRST, WHAT KIND OF BEHAVIOR IS THIS?**

In many cases, it is merely “weak” behavior resulting from weak stimulation, a poorly conditioned response, the absence of an audience, or appropriate conditions are lacking.

**72. SKINNER ALSO TALKS ABOUT BEHAVIOR THAT CAN NOT BE EXECUTED, SUCH AS SKIING WITHOUT SNOW. IDENTIFY THE POTENTIAL EVOCATIVE STIMULI. THIS ANALYSIS CAN ALSO BE APPLIED TO RESPONDING TO FUTURE BEHAVIOR.**

- A) Precurrent behavior - getting out skis
- B) Variables responsible for strengthening skiing-reading a magazine about skiing
- C) Private events - “I am responding now as I have in the past prior to going skiing

73. **NOTE: THE NEXT SECTION (RESPONSES TO THE VARIABLES CONTROLLING BEHAVIOR) INVOLVES TACTING INDEPENDENT VARIABLES, NOT DEPENDENT VARIABLES. SKINNER CAUTIONS THE READER TO AVOID INFERRING PURPOSE TO BEHAVIOR (SOMETIMES CALLED “TELEOLOGICAL” *EXPLICANDA*). ON PAGE 145, HE TAKES UP “SHOULD” OR “OUGHT TO” STATEMENTS. THIS DISCUSSION IS FOUND IN *SCIENCE AND HUMAN BEHAVIOR*, AND PROVIDES A BEHAVIORAL INTERPRETATION OF “ETHICAL” PRONOUNCEMENTS. THUS, “YOU SHOULD TELL THE TRUTH” IS EQUIVALENT TO “TELLING THE TRUTH WILL PROVIDE REINFORCEMENT YOUR PARENTS AND TEACHERS”. BE ABLE TO PROVIDE SIMILAR EXPLANATIONS TO ADVICE SUCH AS “YOU SHOULD TAKE AN UMBRELLA.”**

74. **THE FINAL SECTION DEALS WITH TACTING THE PROBABILITY OF BEHAVIOR. WHAT MIGHT BE THE CONTROLLING VARIABLES?**

- A) Characteristics of behavior in progress (as you are quickly reaching for a sandwich when deprived)
- B) Variables controlling the behavior (the lack of food for 12 hours)

75. **THE CHAPTER CONCLUDES WITH AN IMPORTANT PRACTICAL POINT. WHAT IS IT?**

Understanding the variables responsible for tacting our own behavior is important. If we do, then we can design programs to teach better recall, problem-solving, and thinking repertoires.

## CHAPTER 6

### *SPECIAL CONDITIONS AFFECTING STIMULUS CONTROL*

1. SKINNER MAKES THE POINT THAT STIMULUS CONTROL IS NEVER PERFECT. WHAT ARE SOME REASONS WHY?
  
2. HOW CAN GENERALIZED REINFORCEMENT AFFECT VERBAL BEHAVIOR?
  
3. GIVE EXAMPLES AND CAUSES OF “DISTORTED TACTS.”
  
4. WHEN THE DISTORTION OCCURS, AS IN #3, WHAT HAPPENS TO THE SPEAKER/LISTENER RELATION?
  
5. EXPLAIN THE POINT ABOUT “CONFESSIONS” ON THE BOTTOM OF PAGE 150.
  
6. IN THE NEXT SECTION, SKINNER TALKS ABOUT REINFORCING CONSEQUENCES PROVIDED BY THE LISTENER. USING THE EXAMPLE OF “DINNER IS READY”, GIVE A COUPLE OF CLASSIFICATIONS THAT DEPEND ON THE REINFORCERS PROVIDED.
  
7. NOTE SKINNER’S USE OF “IMPURE TACT.” GIVE AN EXAMPLE.

8. WHAT IS AN “ANNOUNCEMENT?”
  
9. IN THE MIDDLE OF PAGE 153, SKINNER TALKS ABOUT HOW A GIVEN OPERANT (TACT) MAY COME UNDER THE CONTROL OF OTHER VARIABLES, AND THEREFORE BECOME A DIFFERENT OPERANT. EXPLAIN THIS.
  
10. THE NEXT SECTION DISCUSSES HOW EMOTIONAL REACTIONS OF THE LISTENER CAN STRENGTHEN VERBAL BEHAVIOR. BE ABLE TO GIVE EXAMPLES OF HOW VERBAL BEHAVIOR MAY BE MAINTAINED BY “POSITIVE” EMOTIONS AND “NEGATIVE” EMOTIONS.
  
11. OBVIOUSLY, SKINNER IS DISCUSSING IN DETAIL HIS VIEW OF EMOTION. AFTER READING THIS SECTION, WHAT IS AN EMOTION FOR HIM? (SEE TOP OF 158)
  
12. HOW CAN VERBAL BEHAVIOR EVOKE EMOTIONS?
  
13. SKINNER MAKES THE POINT THAT A “CONCRETE TERM”, OR TACT, IS MORE LIKELY TO EVOKE EMOTIONS THAN ABSTRACTIONS. WHY MIGHT THIS BE?
  
14. GO AND RESEARCH THIS “CONDITIONED SEEING” CONCEPT. BE PREPARED TO DISCUSS IT.

15. WHAT HAPPENS TO STIMULUS CONTROL IF THE EMOTIONAL REACTION OF THE LISTENER IS THE ONLY REINFORCER?
16. WHAT KINDS OF VARIABLES CAN AFFECT THE POWER OF VERBAL BEHAVIOR?
17. IN THE FIRST FULL PARAGRAPH ON PAGE 160, SKINNER REFERS TO A PROCEDURE USED BY SALESMEN AND THERAPISTS TO INCREASE “BELIEF.” PLEASE EXPLAIN.
18. TALK ABOUT THE “RHETORICAL DEVICES” THAT CAN INTENSIFY THE LISTENER’S REACTION.
19. IN THE SECTION ON “OTHER REINFORCING ASPECTS OF THE LISTENER’S BEHAVIOR”, SKINNER DISCUSSES HOW OTHER KINDS OF LISTENER REACTIONS MAY REINFORCE THE SPEAKER’S BEHAVIOR. LIST EXAMPLES.
20. THE SECTION, AN IMPORTANT ONE, DISCUSSES WHAT HAPPENS WHEN THE SPEAKER AND LISTENER ARE THE SAME PERSON. IN A SENSE, A PERSON TALKS TO HIM/HERSELF AND REINFORCING EFFECTS ARE AUTOMATICALLY GENERATED. HOW CAN THIS HAPPEN?

21. THE NEXT SECTION INVOLVES THE PUNISHMENT OF VERBAL BEHAVIOR. SKINNER PRESENTS HIS VIEW OF PUNISHMENT. THIS MAY BE UNFAMILIAR TO YOU, SO READ CAREFULLY. THERE ARE TWO FACTORS (OR PROCESSES) TO CONSIDER WHEN AN AVERSIVE STIMULUS IS PRESENTED AFTER BEHAVIOR. WHAT ARE THEY?
22. WHAT ARE SOME OF THE EFFECTS OF PUNISHMENT ON VERBAL BEHAVIOR?
23. NOTE: THE FINAL SECTION DEALS WITH THE BEHAVIOR OF READERS. SKINNER POINTS OUT THAT THERE ARE TWO POSSIBLE REACTIONS OF THE READER: FIRST, HE/SHE MAY EXHIBIT TEXTUAL BEHAVIOR. SECOND, THERE MAY BE OTHER REACTIONS SUCH AS EMOTIONAL BEHAVIOR OR OTHER OPERANT BEHAVIOR THAT IS APPROPRIATE TO THE STIMULUS. IN THIS SECOND KIND OF REACTION, THE READER MAY BE RESPONDING TO HIS/HER OWN TEXTUAL BEHAVIOR AS A LISTENER.





*CHAPTER SIX. ANSWERS.*

**1. SKINNER MAKES THE POINT THAT STIMULUS CONTROL IS NEVER PERFECT. WHAT ARE SOME REASONS WHY?**

- A) Verbal behavior is probably never independent of EOs
- B) Speaker is more alert at times
- C) May be affected by emotional variables
- D) Special consequences may affect it

**2. HOW CAN GENERALIZED REINFORCEMENT AFFECT VERBAL BEHAVIOR?**

- A) The rate at which it is given may be important (will determine rate of verbal behavior emitted)
- B) Generalized reinforcement may be given for particular forms or themes of verbal behavior (see Greenspoon's experiments)

**3. GIVE EXAMPLES AND CAUSES OF "DISTORTED TACTS."**

The stimulus control of tacts may be compromised by strong generalized conditioned reinforcers. Praise for accomplishments may cause someone to "stretch the facts" or even "invent" events that never occurred (e.g., reporting catching a "huge" fish, reporting accomplishments that did not happen, hyperbole.)

**4. WHEN THE DISTORTION OCCURS, AS IN #3, WHAT HAPPENS TO THE SPEAKER/LISTENER RELATION?**

It will deteriorate, as the listener will terminate reinforcer delivery. However, if the distortion can be discriminated, as in fictionalized reports, then reinforcers will be forthcoming and the behavior will be strengthened.

**5. EXPLAIN THE POINT ABOUT "CONFESSIONS" ON THE BOTTOM OF PAGE 150.**

Aversive stimuli may be presented (or the threat thereof), and then terminated contingent on some form of tacts of events. Thus, there is a risk that precise stimulus control over the tacts will be distorted, or even absent.

6. **IN THE NEXT SECTION, SKINNER TALKS ABOUT REINFORCING CONSEQUENCES PROVIDED BY THE LISTENER. USING THE EXAMPLE OF “DINNER IS READY”, GIVE A COUPLE OF CLASSIFICATIONS THAT DEPEND ON THE REINFORCERS PROVIDED.**

Dinner is ready → Listeners come to table: This would function as a mand.

Dinner is ready → Listener praises only if dinner is ready, as in a restaurant: Pure tact.

7. **NOTE SKINNER’S USE OF “IMPURE TACT.” GIVE AN EXAMPLE.**

Sight of candy + candy deprivation → “That is candy!” → Therapist gives praise and candy

8. **WHAT IS AN “ANNOUNCEMENT?”**

It is a form of tact that occurs because it leads the listener to respond to some stimulus described in the tact. For example, a teacher may say “I have candy available!” Such tacts are often preceded by mands “Listen class...”

9. **IN THE MIDDLE OF PAGE 153, SKINNER TALKS ABOUT HOW A GIVEN OPERANT (TACT) MAY COME UNDER THE CONTROL OF OTHER VARIABLES, AND THEREFORE BECOME A DIFFERENT OPERANT. EXPLAIN THIS.**

“I lost my penny” may originate as a tact, but if the speaker receives a penny, the response may become a mand, despite the fact that a penny was not lost. Or Aesop’s boy who cried “wolf!” started out as a tact, but continued in the absence of the predator because it caused others to approach the boy.

NOTE: This provides yet another example of defining behavior by its function, not form, and how the function may change quickly. Think of an example in one of your client’s behavior.

10. **THE NEXT SECTION DISCUSSES HOW EMOTIONAL REACTIONS OF THE LISTENER CAN STRENGTHEN VERBAL BEHAVIOR. BE ABLE TO GIVE EXAMPLES OF HOW VERBAL BEHAVIOR MAY BE MAINTAINED BY “POSITIVE” EMOTIONS AND “NEGATIVE” EMOTIONS.**

- Positive: A speaker may tell an amusing story that evokes laughter in the listener. (laughter may lead to other kinds of reinforcers given by the listener)

- Negative: A speaker may tell or horrific story that evokes discomfort in the listener, which may be reinforcing in some cases

NOTE: Skinner, in other writings, talks about “signs of damage to others” as an important reinforcer in aggression. If you buy that, what variables (EOs) might produce such a reinforcer value?

**11. OBVIOUSLY, SKINNER IS DISCUSSING IN DETAIL HIS VIEW OF EMOTION. AFTER READING THIS SECTION, WHAT IS AN EMOTION FOR HIM? (SEE TOP OF 158)**

Happiness

- A) Respondents elicited by current stimuli (increase in BP, heart rate)
- B) A predisposition to act in various ways (very likely to smile, laugh, make positive comments) - presumably the result of some EO

**12. HOW CAN VERBAL BEHAVIOR EVOKE EMOTIONS?**

By the pairing of a word and some other event that elicits an emotion (pairing of the tact “snake” with the actual snake)

NOTE: Skinner makes several points about verbal behavior and emotion. Suffice it to say that emotional reactions are important in poetry, prose, naming your children, etc.

**13. SKINNER MAKES THE POINT THAT A “CONCRETE TERM”, OR TACT, IS MORE LIKELY TO EVOKE EMOTIONS THAN ABSTRACTIONS. WHY MIGHT THIS BE?**

Simple tacts are more likely to be correlated with emotional stimuli than abstractions, which have been conditioned to 1 single property ranging over a variety of conditions, thus breaking ties to any other stimulus.

**14. GO AND RESEARCH THIS “CONDITIONED SEEING” CONCEPT. BE PREPARED TO DISCUSS IT.**

No answer provided. Be prepared for a discussion.

**15. WHAT HAPPENS TO STIMULUS CONTROL IF THE EMOTIONAL REACTION OF THE LISTENER IS THE ONLY REINFORCER?**

Stimulus control may be destroyed. This is a common characteristic of fictionalized literature.

**16. WHAT KINDS OF VARIABLES CAN AFFECT THE POWER OF VERBAL BEHAVIOR?**

- A) Physical characteristics of the stimulus (clarity, speed, volume)
- B) Listener's history with respect to those in a)
- C) Listener's "belief" - response strength

**17. IN THE FIRST FULL PARAGRAPH ON PAGE 160, SKINNER REFERS TO A PROCEDURE USED BY SALESMEN AND THERAPISTS TO INCREASE "BELIEF." PLEASE EXPLAIN.**

The salesperson/therapist says several statements which are obviously true, and the listener reacts appropriately ("Yeah, you are right"). Then, the listener is predisposed to agree upon hearing other statements. This is perhaps similar to the well-known procedure of behavior momentum.

**18. TALK ABOUT THE "RHETORICAL DEVICES" THAT CAN INTENSIFY THE LISTENER'S REACTION.**

- A) Repeating a statement several times in different ways ("I am very upset with you. Very angry. Really teed off!") or presenting a statement + a picture
- B) Correspondence of stimulus and response (Long tacts to describe large objects, onomatopoeia, rare name for a rare bird)

**19. IN THE SECTION ON "OTHER REINFORCING ASPECTS OF THE LISTENER'S BEHAVIOR", SKINNER DISCUSSES HOW OTHER KINDS OF LISTENER REACTIONS MAY REINFORCE THE SPEAKER'S BEHAVIOR. LIST EXAMPLES.**

- A) Buying books, returning to lectures
- B) Verbal praise (good, right!)
- C) Applause

**20. THE SECTION, AN IMPORTANT ONE, DISCUSSES WHAT HAPPENS WHEN THE SPEAKER AND LISTENER ARE THE SAME PERSON. IN A SENSE, A PERSON TALKS TO HIM/HERSELF AND REINFORCING EFFECTS ARE AUTOMATICALLY GENERATED. HOW CAN THIS HAPPEN?**

Sound that is reinforcing in the environment can be reinforcing if produced:

- A) Child is reinforced by the sound of airplanes, and may then produce these sounds
- B) Student may find what a teacher says to be reinforcing, so student may talk in the same way because it “sounds good.”
- C) The egocentric person is reinforced by praise, so he/she praises him/herself

NOTE: Presumably, this effect may involve pairing of the sound with other reinforcers, or it may not.

**21. THE NEXT SECTION INVOLVES THE PUNISHMENT OF VERBAL BEHAVIOR. SKINNER PRESENTS HIS VIEW OF PUNISHMENT. THIS MAY BE UNFAMILIAR TO YOU, SO READ CAREFULLY. THERE ARE TWO FACTORS (OR PROCESSES) TO CONSIDER WHEN AN AVERSIVE STIMULUS IS PRESENTED AFTER BEHAVIOR. WHAT ARE THEY?**

- A) Converts response-produced stimuli into conditioned aversive stimuli
- B) Any other response that terminates these stimuli are automatically reinforced

NOTE: Skinner believed that punishment had many undesirable effects.

**22. WHAT ARE SOME OF THE EFFECTS OF PUNISHMENT ON VERBAL BEHAVIOR?**

- A) Decrease in rate, increase in latency
- B) Decrease in intensity (may become covert)
- C) Change in content (to avoid punishment)

NOTE: Skinner interprets many Freudian mechanisms (projection, identification, repression) as a result of punishment.

23. **NOTE: THE FINAL SECTION DEALS WITH THE BEHAVIOR OF READERS. SKINNER POINTS OUT THAT THERE ARE TWO POSSIBLE REACTIONS OF THE READER: FIRST, HE/SHE MAY EXHIBIT TEXTUAL BEHAVIOR. SECOND, THERE MAY BE OTHER REACTIONS SUCH AS EMOTIONAL BEHAVIOR OR OTHER OPERANT BEHAVIOR THAT IS APPROPRIATE TO THE STIMULUS. IN THIS SECOND KIND OF REACTION, THE READER MAY BE RESPONDING TO HIS/HER OWN TEXTUAL BEHAVIOR AS A LISTENER.**





CHAPTER 7  
*THE AUDIENCE*

1. CLASSIFY THE AUDIENCE USING A BEHAVIORAL TERM.
2. SKINNER POINTS OUT THAT AUDIENCE CONTROL IS SHARED WITH OTHER VARIABLES. GIVE AN EXAMPLE.
3. AN AUDIENCE DETERMINES WHETHER A RESPONSE WILL OCCUR AT ALL, AND IT WILL ALSO STRENGTHEN PARTICULAR SUBGROUPS OF RESPONSES. THIRDLY, THE AUDIENCE MAY ALSO DETERMINE THE "SUBJECT MATTER." GIVE AN EXAMPLE.
4. WHAT ARE SOME PHYSICAL DIMENSIONS OF AUDIENCES THAT WILL AFFECT RESPONSE STRENGTH?
5. HOW DOES SKINNER ACCOUNT FOR HIGH-PROBABILITY LETTER WRITING TO SOMEONE WHO IS NOT PRESENT?
6. IN THE FIRST PARAGRAPH IN "THE NEGATIVE AUDIENCE", WHAT BEHAVIORAL CONCEPT IS BEING DESCRIBED? IN THE SECOND PARAGRAPH?
7. IN THE FINAL PARAGRAPH IN THE ABOVE SECTION, SKINNER TALKS ABOUT "REPRESSION." PROVIDE A BEHAVIORAL INTERPRETATION OF THIS (REFER TO *SCIENCE AND HUMAN BEHAVIOR* IF NECESSARY).

8. CAN A PERSON FUNCTION AS HIS OWN LISTENER? GIVE AN EXAMPLE. HOW CAN WE DETECT A “SELF AUDIENCE” IN OPERATION?
  
9. WHAT ARE TWO OTHER VARIABLES THAT SHOW AN AUDIENCE EFFECT?
  
10. WHAT IS THE DIFFERENCE BETWEEN THE EFFECT DESCRIBED IN 9B, AND INTRAVERBAL STIMULI?
  
11. EXAMINE THE POINT MADE ON PAGE 183 AT THE BOTTOM: “WE HAVE SEEN THAT THERE ARE NO TRUE SYNONYMS, FOR WHEN ALL VARIABLES HAVE BEEN SPECIFIED THERE IS NO CHOICE OF REMAINING TERMS.” WHAT DOES THIS MEAN?



*CHAPTER SEVEN. ANSWERS.*

**1. CLASSIFY THE AUDIENCE USING A BEHAVIORAL TERM.**

The audience is, functionally, a discriminative stimulus that strengthens a large group of responses. Note that different audiences may strengthen various subgroups of the repertoire. For example, a group of musicians may strengthen tacts and intraverbals related to music, and a group of psychologists may strengthen tacts and intraverbals related to psychology.

**2. SKINNER POINTS OUT THAT AUDIENCE CONTROL IS SHARED WITH OTHER VARIABLES. GIVE AN EXAMPLE.**

The presence of some object (ice cream) will evoke a tact of a particular form, depending on the audience. Thus, the audience will strengthen a group of responses, while the sight of a particular object will have a more specific effect on the form of the response. Thus, in the ice cream example, the presence of your friends, along with the sight of the ice cream, may evoke “ice cream” as a tact. However, the presence of some behavioral people may evoke “positive reinforcer.” In a sense, a behavioral audience will strengthen a large class of tacts that relate to behavioral terminology.

**3. AN AUDIENCE DETERMINES WHETHER A RESPONSE WILL OCCUR AT ALL, AND IT WILL ALSO STRENGTHEN PARTICULAR SUBGROUPS OF RESPONSES. THIRDLY, THE AUDIENCE MAY ALSO DETERMINE THE “SUBJECT MATTER.” GIVE AN EXAMPLE.**

Some audiences reinforce just mands, others reinforce tacts or intraverbals related to thematic topics. Still others may reinforce “creative” conversations.

**4. WHAT ARE SOME PHYSICAL DIMENSIONS OF AUDIENCES THAT WILL AFFECT RESPONSE STRENGTH?**

The physical stimuli that control responses are easy to identify in echoics, textual, intraverbals, and tacts. Not so in the audience. However, there are some characteristics that are important:

- A) The physical resemblance of the audience to others who have reinforced behavior
- B) Uniforms or signs may be important (e.g., “Staff”)
- C) If audience character is correlated with weak (or strong), delayed (or immediate) reinforcement, then the resulting behavior will be weak (or strong)
- D) Receptor orientation (not in the book, but think about this one)

**5. HOW DOES SKINNER ACCOUNT FOR HIGH-PROBABILITY LETTER WRITING TO SOMEONE WHO IS NOT PRESENT?**

There may be stimuli in the environment that evoke “images” or conditioned seeing. These same stimuli may also strengthen the writing.

**6. IN THE FIRST PARAGRAPH IN “THE NEGATIVE AUDIENCE”, WHAT BEHAVIORAL CONCEPT IS BEING DESCRIBED? IN THE SECOND PARAGRAPH?**

$S^{\Delta}$ ;  $S^P$

**7. IN THE FINAL PARAGRAPH IN THE ABOVE SECTION, SKINNER TALKS ABOUT “REPRESSION.” PROVIDE A BEHAVIORAL INTERPRETATION OF THIS (REFER TO *SCIENCE AND HUMAN BEHAVIOR* IF NECESSARY).**

Repression results from punishment. In this concept, behavior has been punished severely, and any incipient behavior is reinforced because it terminates aversive stimuli. This incipient behavior includes the behavior involved in self knowledge (knowing what you have done or are doing).

**8. CAN A PERSON FUNCTION AS HIS OWN LISTENER? GIVE AN EXAMPLE. HOW CAN WE DETECT A “SELF AUDIENCE” IN OPERATION?**

Yes. A person can speak, and then react to the verbal behavior as a listener.

E.g.: One may rehearse a speech, and then react to what is said as an audience, and pose questions that are in turned, answered.

A self audience is functioning when the speaker exhibits verbal behavior even if external conditions do not support it. For example, a person is the speaker/listener when the potential listeners are not “paying attention,” when there is a great deal of noise, or perhaps they speak a different language.

**9. WHAT ARE TWO OTHER VARIABLES THAT SHOW AN AUDIENCE EFFECT?**

A) Places: Certain places may be correlated with reinforcement for verbal behavior. Therefore, those places will strengthen the verbal behavior. Thus, we may be “talkative” at certain locations that have involved reinforcement for such behavior in the past.

B) Verbal behavior itself: The stimulation arising from talking may be correlated with reinforcement for continued talking. For example, talking in English is an SD for continued talking in English. Likewise for speaking in French. This effect can be seen when an audience changes say, from English to French, and the bilingual speaker's verbal behavior changes more slowly, as he/she "gets warmed up" in the second language.

**10. WHAT IS THE DIFFERENCE BETWEEN THE EFFECT DESCRIBED IN 9B, AND INTRAVERBAL STIMULI?**

Intraverbal stimuli strengthen particular responses, and the audience effect of language described above strengthens a larger group of responses, as all audiences do.

**11. EXAMINE THE POINT MADE ON PAGE 183 AT THE BOTTOM: "WE HAVE SEEN THAT THERE ARE NO TRUE SYNONYMS, FOR WHEN ALL VARIABLES HAVE BEEN SPECIFIED THERE IS NO CHOICE OF REMAINING TERMS." WHAT DOES THIS MEAN?**

When there are two or more tacts that might be appropriate in a given situation, the one that is ultimately emitted is not "chosen" by the speaker, but is determined by other supplementary variables. For example, let us say that "car" and "auto" are equally strengthened by a variable, and the person tacts "auto". We would explain this not by appealing to a "choice" but instead inquiring about other current variables that added supplementary strength. Perhaps the person had just read something about "autos" or perhaps he just overheard a conversation in which someone said that an event was "automatic."



CHAPTER 8

*THE VERBAL OPERANT AS A UNIT OF ANALYSIS*

1. THERE IS A SUMMARY OF THE FUNCTIONAL CLASSES AND THEIR CONTROLLING VARIABLES (PP. 185-186). BE ABLE TO PRESENT THIS SUMMARY IN YOUR OWN WORDS. NOTE THAT THE AUDIENCE DOES NOT TYPICALLY EVOKE A SPECIFIC RESPONSE, BUT STRENGTHENS A SUBDIVISION OF THE REPERTOIRE (E.G., A LANGUAGE, JARGON).
  
2. GIVE AN EXAMPLE IN WHICH A GIVEN WORD OR FORM (E.G., "CANDY") CAN BE ANY ONE OF THE VARIOUS CLASSES.
  
3. REVIEW WHAT THE CONCEPT OF "MEANING" IS.
  
4. IF A PERSON LEARNS A MAND, DOES IT FOLLOW THAT THE TACT REPERTOIRE IS ALSO LEARNED?
  
5. EXPLAIN HOW A CHILD MAY COME TO "ASK FOR THE WORD FOR AN ITEM."
  
6. SKINNER MAKES THAT POINT THAT MAND (OR TACT) TRAINING MAY FACILITATE THE ACQUISITION OF TACTS (OR MANDS). HOW SO?
  
7. ARE THE OTHER CLASSES INDEPENDENT OF EACH OTHER?

8. WHAT IS SKINNER'S VIEW OF APHASIA?
9. CAN RESPONSES OCCUR IN DIFFERENT MEDIA? DOES THE PRESENCE OF ONE GUARANTEE THE OTHER?
10. WHAT ROLE DOES TRANSCRIPTION PLAY IN WRITING AND SPEAKING?
11. IS THERE ANY PARTICULAR "BASIC MEDIUM" THAT REPRESENTS VERBAL BEHAVIOR?
12. NOTE: SKINNER RAISES THE QUESTION OF WHETHER REINFORCING ONE MEDIUM (WRITING) WILL STRENGTHEN ANOTHER MEDIUM (SPEAKING). HE POINTS OUT THE POSSIBILITY THAT TRANSCRIPTION MAY ACCOUNT FOR ANY OBSERVED EFFECT. HOWEVER, HE GOES ON TO DISCUSS THE POSSIBILITY, USING THE EXAMPLE OF PEOPLE WHO CORRESPOND THROUGH WRITING. FOR EXAMPLE, SAY TWO PEOPLE WRITE LETTERS (OR EMAIL!) BACK AND FORTH. WHEN THE TWO FINALLY MEET, THEIR RESPECTIVE VOCAL REPERTOIRES WILL BE MUCH STRONGER THAN IF THEY HAD MET FOR THE FIRST TIME. HOWEVER, TO CLAIM A RESPONSE GENERALIZATION EFFECT, ONE WOULD HAVE TO RULE OUT VOCAL OR SUB-VOCAL CONCOMITANTS OF THE LETTER WRITING THAT MAY HAVE BEEN STRENGTHENED. THIS POINT IS TRUE IN ASSESSING RESPONSE GENERALIZATION IN ANY SITUATION. THINK OF AN EXAMPLE OF ASSESSING RESPONSE GENERALIZATION, AND HOW THIS POINT MIGHT APPLY.

13. WHY MIGHT EXPLAIN TRANSFERS TO OTHER MEDIA WHEN BOTH ARE PRESENT IN STRENGTH?
14. READ THE EXAMPLE OF A PERSON ORDERING FROM A LIST. THIS “PROBE” CONCEPT WILL BE DEALT WITH LATER, AND WAS ADDRESSED IN *SCIENCE AND HUMAN BEHAVIOR*. TRY AND EXPLAIN THIS.
15. NOTE: SKINNER CONTINUES BY TALKING ABOUT POINTING, WHICH CAN BE INDEPENDENTLY TRAINED. THIS SECTION ENDS BY STATING AN IMPORTANT FACT: IT MAY BE DIFFICULT TO SHOW THAT REINFORCING ONE MEDIUM STRENGTHENS OTHER MEDIA THROUGH TRANSLATION OR TRANSCRIPTION, BUT RESPONSE GENERALIZATION HAS NOT YET BEEN ESTABLISHED.
16. NOTE: IN THE NEXT, BRIEF SECTION, SKINNER ADDRESSES THE INDEPENDENCE OF SPEAKING AND LISTENING REPERTOIRES. SUFFICE IT TO SAY THAT THEY ARE INDEPENDENT REPERTOIRES. IN A SENSE, LEARNING TO REACT TO WHAT YOU HEAR DOES NOT AUTOMATICALLY LEAD TO BEING ABLE TO TALK ABOUT IT. SKINNER AGAIN POINTS TO THE APHASIC. I WOULD POINT TO GRADUATE CLASSES IN WHICH STUDENTS HEAR ABOUT THE PRINCIPLES OF BEHAVIOR, BUT ARE NOT ABLE TO TALK ABOUT THEM IN THE SAME WAY UNLESS THEY HAVE A CHANCE TO “PRACTICE” TALKING ABOUT THEM.
17. IN THE NEXT SECTION, SKINNER DISCUSSES HOW WE TALK IN TWO OR MORE LANGUAGES. THUS, IF WE READ SOMETHING IN ENGLISH, HOW IS IT THAT WE CAN EXPLAIN IT IN SPANISH OR FRENCH?
- HOWEVER, THIS MAY NOT NECESSARILY BE INVOLVED. ON THE BOTTOM OF PAGE 196, SKINNER TALKS ABOUT A SECOND, MORE INTRIGUING POSSIBILITY. TALK ABOUT THIS.

18. ANOTHER WAY OF EXPLAINING TALKING IN A SECOND LANGUAGE IS TO APPEAL TO THE EFFECT ON THE LISTENER, WHO CAN BE THE SAME PERSON AS THE SPEAKER (I.E., TALKING TO YOURSELF). THIS INVOLVES A SPEAKER “TRYING OUT” SOME VERBAL BEHAVIOR ON HIMSELF AND REACTING TO ITS EFFECT. GIVE AN EXAMPLE OF THIS.
19. THERE IS A THIRD POSSIBILITY OF SPEAKING IN DIFFERENT LANGUAGES, DESCRIBED ON PAGE 198. DESCRIBE THIS SCENARIO.
20. IN THE SECTION ON “DYNAMIC PROPERTIES,” SKINNER TALKS OF THE TWO EFFECTS OF STIMULI THAT CONTROL VERBAL BEHAVIOR. WHAT ARE THEY?
21. THE FIRST VARIABLE CONSIDERED IS STRENGTH OF THE VERBAL REPERTOIRE AS A WHOLE. WHAT KIND OF VARIABLES HAVE THIS EFFECT WITHOUT REGARD TO FORM?
22. EXPLAIN THE POINT ABOUT “HOLDING THE FLOOR.” RELATE IT TO AVOIDING SILENCE.
23. SKINNER POINTS OUT THAT VERBAL BEHAVIOR OFTEN OCCURS UNDER MORE “TRIVIAL” AVERSIVE CONDITIONS. THESE INCLUDE FINISHING A SENTENCE EVEN THOUGH THE EFFECT ON THE LISTENER HAS ALREADY BEEN ACHIEVED. WHY IS THIS?

24. CHECK OUT THE FOOTNOTE ON PAGE 202. WHAT IS HAPPENING HERE?
25. THE FINAL SECTION DEALS WITH THE TAT AND THE “VERBAL SUMMATOR.” THE POINT CAN ACTUALLY RELATE TO ANY PROJECTIVE TEST. EXPLAIN THIS IN YOUR OWN WORDS.
26. NOTE: IN THE FINAL POINT OF THIS SECTION, SKINNER SUGGESTS THAT WHEN REINFORCEMENT IS CONTINGENT ON SPEED OF RESPONSE, FORMAL CONTROLS MAY BE WEAKENED.
27. THE NEXT SECTION DEALS WITH SOME FUNDAMENTALS OF OPERANT CONDITIONING, AND HOW SUCH CONDITIONING IMPACTS VERBAL BEHAVIOR. FIRST UP IS A POINT ABOUT UNDER WHAT CONDITIONS PEOPLE ARE “ENERGETIC, ENTHUSIASTIC, INTERESTED...” OR “PHLEGMATIC, UNINSPIRED, LETHARGIC...”. WHAT ARE THESE CONDITIONS?
28. SKINNER GOES ON TO TALK ABOUT THE EFFECTS OF OPERANT CONTINGENCIES ON THE DYNAMIC PROPERTIES OF BEHAVIOR. WHAT ARE THESE?
29. READ OVER THE SECTIONS ON EXTINCTION AND FORGETTING. WHAT IS THE DIFFERENCE? HOW COULD YOU TELL WHICH HAS OCCURRED?

30. HOW DOES SKINNER EXPLAIN FORGETTING, ESPECIALLY IN REGARDS TO FORGETTING PROPER NAMES?
31. SKINNER PRESENTS HIS INTERPRETATION OF CLASSIC MEMORY EXPERIMENTS OF EBBINGHAUS AND OTHERS. THEY USED “NONSENSE” SYLLABLES TO MINIMIZE CONFOUNDS BY EVERYDAY USAGE. WHAT CLASSES OF VERBAL BEHAVIOR ARE INVOLVED? WHAT INDEPENDENT VARIABLES ARE STUDIED?
32. SKINNER, IN THE NEXT SECTION (“CONTINGENCIES DETERMINING FORM”) TALKS OF SUPERSTITIONS. WHAT ARE THESE? GIVE AN EXAMPLE.
33. NOTE: SKINNER MAKES THE POINT THAT BEHAVIOR TENDS TO MOVE TOWARD THE MINIMUM WHICH SATISFIES THE CONTINGENCIES. WHY MIGHT THIS BE?
34. NOTE: THE LAST PARAGRAPHS OF THIS SECTION DEAL WITH DETERIORATION OF FORM OF VERBAL BEHAVIOR. FIRST, SKINNER MAKES A DISTINCTION BETWEEN CHANGES IN THE SPEAKER, DUE TO CHANGES IN THE REQUIREMENTS OF PARTICULAR LISTENERS, AND CHANGES IN SPEAKER BEHAVIOR DUE TO CHANGES IN THE REINFORCING PRACTICES OF THE COMMUNITY AS A WHOLE. THE LATTER CAN BE SEEN IN THE CHANGES IN OUR VERBAL BEHAVIOR RELATED TO COMPUTERS. WE HAVE MANY NEW TERMS AND MEANINGS, AND THESE ARE REINFORCED BY THE COMMUNITY. OTHERS POINT TO THE CHANGE IN WHAT IS “ACCEPTABLE” LANGUAGE, SUCH AS DOUBLE NEGATIVES, THE USE OF “AIN’T”, ETC.

35. SKINNER ALSO POINTS OUT THAT THERE IS A CHANGE IN EDUCATIONAL REINFORCEMENTS FOR VERBAL BEHAVIOR AS A CHILD AGES. GIVE AN EXAMPLE. THEN, DISCUSS AT WHAT POINT THE “DETERIORATION” WILL CEASE.
36. IN THE SECTION ON MOTIVATION, SKINNER TALKS ABOUT VARIABLES THAT WILL GENERALLY STRENGTHEN VERBAL BEHAVIOR. GIVE SOME EXAMPLES:
37. READ OVER THE “EMOTION” SECTION. FIRST, BE ABLE TO EXPLAIN SKINNER’S VIEW OF EMOTION, INCLUDING THE THREE COMPONENTS (ACTUALLY, IN *SCIENCE AND HUMAN BEHAVIOR*, HE TALKS ONLY ABOUT TWO).
38. ON THE TOP OF PAGE 216, CHECK OUT HIS STATEMENT REGARDING “ANGER”. WHAT REINFORCER MAINTAINS SUCH BEHAVIOR?
39. IN THE REMAINING PART OF THE EMOTION SECTION, SKINNER TALKS ABOUT SOME OF THE DYNAMIC PROPERTIES OF VERBAL BEHAVIOR THAT ARE SAID TO BE RELATED TO “EMOTIONAL EXPRESSION.” WHAT ARE THE UNDERLYING VARIABLES THAT MIGHT EXPLAIN THESE PROPERTIES?



40. NOTE: CHECK OUT THE LAST PARAGRAPH ON 217. SKINNER TALKS ABOUT THE POSSIBLE EVOCATIVE VARIABLES OF THE TACT "I AM ANGRY." THEY COMPOSE THE ELEMENTS OF EMOTION. HE REFERS TO HIS VIEW OF HOW WE COME TO TACT PRIVATE EVENTS.
41. IN THE FIRST PARAGRAPH IN "DAMAGED VERBAL BEHAVIOR", SKINNER MAKES THE CASE FOR A FUNCTIONAL CLASSIFICATION OF VERBAL BEHAVIOR. EXPLAIN THIS. HE GOES ON TO DISCUSS WHICH CLASSES ARE MOST VULNERABLE TO DAMAGE. WHAT ARE THESE?
42. IN THE NEXT SECTION ON "WHEN DOES VERBAL BEHAVIOR CEASE", DISCUSS SOME OF THE VARIABLES THAT BRING VERBAL BEHAVIOR TO AN END.
43. IN THE FINAL SECTION OF THIS CHAPTER, SKINNER REFINES THE DEFINITION OF VERBAL BEHAVIOR. RECALL THAT HE INITIALLY SUGGESTED THAT VERBAL BEHAVIOR IS BEHAVIOR REINFORCED BY THE MEDIATION OF OTHERS. HE THEN ADDS ANOTHER, IMPORTANT ELEMENT THAT HOLDS THE LISTENER'S BEHAVIOR MUST HAVE BEEN CONDITIONED TO REINFORCE THE SPEAKER'S BEHAVIOR. THIS CONDITIONING PROCESS HAS BEEN DONE BY THE VERBAL COMMUNITY. PLEASE GIVE AN EXAMPLE AND NON-EXAMPLE OF THIS.



*CHAPTER EIGHT. ANSWERS.*

1. **THERE IS A SUMMARY OF THE FUNCTIONAL CLASSES AND THEIR CONTROLLING VARIABLES (PP. 185-186). BE ABLE TO PRESENT THIS SUMMARY IN YOUR OWN WORDS. NOTE THAT THE AUDIENCE DOES NOT TYPICALLY EVOKE A SPECIFIC RESPONSE, BUT STRENGTHENS A SUBDIVISION OF THE REPERTOIRE (E.G., A LANGUAGE, JARGON).**

Describe *mand*, *tact*, *echoic*, *textual*, and *intraverbal* behavior.

2. **GIVE AN EXAMPLE IN WHICH A GIVEN WORD OR FORM (E.G., "CANDY") CAN BE ANY ONE OF THE VARIOUS CLASSES.**

- A) Mand - person is asking for candy
- B) Tact - person asked "what is this?"
- C) Echoic - person is asked "say candy"
- D) Textual - the written word candy is presented and person is asked to read it
- E) Intraverbal - person is asked "Snickers is a kind of \_\_\_\_\_"

3. **REVIEW WHAT THE CONCEPT OF "MEANING" IS.**

4. **IF A PERSON LEARNS A MAND, DOES IT FOLLOW THAT THE TACT REPERTOIRE IS ALSO LEARNED?**

No. The functional classes are independent. In fact, there are some mands (and tacts) that do not exist as tacts (or mands).

5. **EXPLAIN HOW A CHILD MAY COME TO "ASK FOR THE WORD FOR AN ITEM."**

The behavior of asking for a word (What is that?) is a mand reinforced by the response of the listener (It is a pencil!), which then serves as a stimulus that when echoed (Give me the pencil), produces the item. This process is a rather complex chain that ultimately produces the desired item. The response is then an independent mand (Give me the pencil) which may occur in the future.

6. **SKINNER MAKES THAT POINT THAT MAND (OR TACT) TRAINING MAY FACILITATE THE ACQUISITION OF TACTS (OR MANDS). HOW SO?**

In mand training, the item is often present. Thus, the sight of the object may acquire evocative control over the tact repertoire. Likewise, in tact training the presence of the item is a likely situation for delivery of the item. Thus, a mand would be reinforced.

**7. ARE THE OTHER CLASSES INDEPENDENT OF EACH OTHER?**

Yes. However, if one has a textual repertoire, he/she likely has an echoic; but, an echoic repertoire does not assume a textual one. In essence, Skinner suggests that the occurrence of any verbal operant requires us to identify the history responsible for it.

**8. WHAT IS SKINNER'S VIEW OF APHASIA?**

It is the loss of particular functional relations. For example, one may be able to mand for an item, but not tact it. Thus, the controlling relation between the nonverbal stimulus and tact is absent.

**9. CAN RESPONSES OCCUR IN DIFFERENT MEDIA? DOES THE PRESENCE OF ONE GUARANTEE THE OTHER?**

Yes. We have written and spoken repertoires.

No. They are independent repertoires that are conditioned separately.

**10. WHAT ROLE DOES TRANSCRIPTION PLAY IN WRITING AND SPEAKING?**

Transcription may allow us to move from one medium to another. For example, we write down what someone says, and then react to the textual stimuli. Or, we may write down our own private speaking, and react to the text. Likewise, we may read out loud to ourselves to see "how it sounds."

**11. IS THERE ANY PARTICULAR "BASIC MEDIUM" THAT REPRESENTS VERBAL BEHAVIOR?**

No. Some media are more likely than others to predominate. For example, writing may be more common in the deaf community, but not in communities that are illiterate.

**12. NOTE: SKINNER RAISES THE QUESTION OF WHETHER REINFORCING ONE MEDIUM (WRITING) WILL STRENGTHEN ANOTHER MEDIUM (SPEAKING). HE POINTS OUT THE POSSIBILITY THAT TRANSCRIPTION MAY ACCOUNT FOR ANY OBSERVED EFFECT. HOWEVER, HE GOES ON TO DISCUSS THE POSSIBILITY, USING THE EXAMPLE OF PEOPLE WHO CORRESPOND THROUGH WRITING. FOR EXAMPLE, SAY TWO PEOPLE WRITE LETTERS (OR EMAIL!) BACK AND FORTH. WHEN THE TWO FINALLY MEET, THEIR**

RESPECTIVE VOCAL REPERTOIRES WILL BE MUCH STRONGER THAN IF THEY HAD MET FOR THE FIRST TIME. HOWEVER, TO CLAIM A RESPONSE GENERALIZATION EFFECT, ONE WOULD HAVE TO RULE OUT VOCAL OR SUB-VOCAL CONCOMITANTS OF THE LETTER WRITING THAT MAY HAVE BEEN STRENGTHENED. THIS POINT IS TRUE IN ASSESSING RESPONSE GENERALIZATION IN ANY SITUATION. THINK OF AN EXAMPLE OF ASSESSING RESPONSE GENERALIZATION, AND HOW THIS POINT MIGHT APPLY.

**13. WHY MIGHT EXPLAIN TRANSFERS TO OTHER MEDIA WHEN BOTH ARE PRESENT IN STRENGTH?**

One medium may occur because the other is weakened by current contingencies. For example, one might hold up a sign for "Silence" in a quiet library because the vocal form would be punished.

**14. READ THE EXAMPLE OF A PERSON ORDERING FROM A LIST. THIS "PROBE" CONCEPT WILL BE DEALT WITH LATER, AND WAS ADDRESSED IN *SCIENCE AND HUMAN BEHAVIOR*. TRY AND EXPLAIN THIS.**

In ordering food, the customer may read the menu. This behavior will provide stimuli that strengthen "latent" mands. Latent mands are merely mands that are in strength (a person may be predisposed to order Mexican food, but the mand is not yet strong enough to be emitted). The supplementary echoic stimuli provided by the textual behavior may permit the mand to be emitted. The same process may be involved when one person reads the menu to another.

**15. NOTE: SKINNER CONTINUES BY TALKING ABOUT POINTING, WHICH CAN BE INDEPENDENTLY TRAINED. THIS SECTION ENDS BY STATING AN IMPORTANT FACT: IT MAY BE DIFFICULT TO SHOW THAT REINFORCING ONE MEDIUM STRENGTHENS OTHER MEDIA THROUGH TRANSLATION OR TRANSCRIPTION, BUT RESPONSE GENERALIZATION HAS NOT YET BEEN ESTABLISHED.**

**16. NOTE: IN THE NEXT, BRIEF SECTION, SKINNER ADDRESSES THE INDEPENDENCE OF SPEAKING AND LISTENING REPERTOIRES. SUFFICE IT TO SAY THAT THEY ARE INDEPENDENT REPERTOIRES. IN A SENSE, LEARNING TO REACT TO WHAT YOU HEAR DOES NOT AUTOMATICALLY LEAD TO BEING ABLE TO TALK ABOUT IT. SKINNER AGAIN POINTS TO THE APHASIC. I WOULD POINT TO GRADUATE CLASSES IN WHICH STUDENTS HEAR ABOUT THE PRINCIPLES OF BEHAVIOR, BUT ARE NOT ABLE TO TALK ABOUT THEM IN THE SAME WAY UNLESS THEY HAVE A CHANCE TO "PRACTICE" TALKING ABOUT THEM.**

**17. IN THE NEXT SECTION, SKINNER DISCUSSES HOW WE TALK IN TWO OR MORE LANGUAGES. THUS, IF WE READ SOMETHING IN ENGLISH, HOW IS IT THAT WE CAN EXPLAIN IT IN SPANISH OR FRENCH?**

The first explanation has to do with translation. When we learn a second language, we are learning intraverbal connections between the first and second. For example, we may learn that “perro” is the same as “dog.” Then, when we talk about dogs in Spanish, we may translate dog into perro and then emit “perro.” (e.g., “What is Spanish for dog? Hmm. Its perro.”)

**HOWEVER, THIS MAY NOT NECESSARILY BE INVOLVED. ON THE BOTTOM OF PAGE 196, SKINNER TALKS ABOUT A SECOND, MORE INTRIGUING POSSIBILITY. TALK ABOUT THIS.**

After learning a second language (e.g., Spanish), variables that strengthen particular English operants will also strengthen Spanish operants. For example, if variables strengthen emission of “dog”, then “perro” will also be strengthened because “dog” and “perro” are members of the same functional class. Which is emitted will depend on other ancillary audience or contextual variables that strengthen one of them.

**18. ANOTHER WAY OF EXPLAINING TALKING IN A SECOND LANGUAGE IS TO APPEAL TO THE EFFECT ON THE LISTENER, WHO CAN BE THE SAME PERSON AS THE SPEAKER (I.E., TALKING TO YOURSELF). THIS INVOLVES A SPEAKER “TRYING OUT” SOME VERBAL BEHAVIOR ON HIMSELF AND REACTING TO ITS EFFECT. GIVE AN EXAMPLE OF THIS.**

Let us say that variables have strengthened the tact “That dog is a basset hound!” These same variables may also strengthen the Spanish form of the tact, but the speaker may emit the Spanish form to himself to see if it “sounds right.” If so, it may be emitted aloud; if not, it may be corrected and then emitted. This appeals to an “editing” process which will be described later in the book.

**19. THERE IS A THIRD POSSIBILITY OF SPEAKING IN DIFFERENT LANGUAGES, DESCRIBED ON PAGE 198. DESCRIBE THIS SCENARIO.**

Variables may strengthen verbal behavior in English, and this behavior may produce private events that may be described in Spanish. Imagine you are at a party, and an English speaking friend asks you “Did you like last night’s movie?” This may strength-

en Verbal behavior (e.g., “Let’s see. Last night’s movie. Oh yeah. It was about a cast-away on an island. He talked to a volleyball”) that leads to “seeing” parts of the movie. You may then describe those sights in Spanish to other friends in the group.

**20. IN THE SECTION ON “DYNAMIC PROPERTIES,” SKINNER TALKS OF THE TWO EFFECTS OF STIMULI THAT CONTROL VERBAL BEHAVIOR. WHAT ARE THEY?**

- A) They determine its form
- B) They strengthen it

**21. THE FIRST VARIABLE CONSIDERED IS STRENGTH OF THE VERBAL REPERTOIRE AS A WHOLE. WHAT KIND OF VARIABLES HAVE THIS EFFECT WITHOUT REGARD TO FORM?**

Attention of the listener. This variable will strengthen any behavior that produces it.

**22. EXPLAIN THE POINT ABOUT “HOLDING THE FLOOR.” RELATE IT TO AVOIDING SILENCE.**

EOs have made the speaking of other aversive, and these EOs then evoke a variety of behavior that is maintained by the absence of others’ speaking. In this case, silence is reinforcing.

On the other hand, silence may be aversive. EOs may have made silence aversive, so behavior that avoid/terminate it will be strengthened. This behavior may be varied, as the only requirement that it avoid/terminate silence. Skinner gives many examples of this phenomenon, including “stalling.”

**23. SKINNER POINTS OUT THAT VERBAL BEHAVIOR OFTEN OCCURS UNDER MORE “TRIVIAL” AVERSIVE CONDITIONS. THESE INCLUDE FINISHING A SENTENCE EVEN THOUGH THE EFFECT ON THE LISTENER HAS ALREADY BEEN ACHIEVED. WHY IS THIS?**

Because in the past, finishing a sentence was important and avoided aversive consequences. This may be shown in using “stock” phrases that finish sentences. It may also include “trivial” behavior such as small talk or idle chatter.



**24. CHECK OUT THE FOOTNOTE ON PAGE 202. WHAT IS HAPPENING HERE?**

There was an aversive condition that strengthened the mother's verbal repertoire. The sight of the cream pitcher strengthened her remark (it occurred to avoid any talk about the man's nose), but talking about his nose was strong, and that part of her repertoire was injected into the comment. Skinner talks about this as variables that strengthen a variety of verbal behavior give "free rein" to other variables that may select out certain forms.

**25. THE FINAL SECTION DEALS WITH THE TAT AND THE "VERBAL SUMMATOR." THE POINT CAN ACTUALLY RELATE TO ANY PROJECTIVE TEST. EXPLAIN THIS IN YOUR OWN WORDS.**

Mild aversive variables strengthen large portions of the verbal repertoire (e.g., "Explain what is going on in the picture." Or "What do you hear?"). Other variables that are strong in the person's life will then select out particular forms which will give the evaluator some "insight" into what is going on in the person's life.

**26. NOTE: IN THE FINAL POINT OF THIS SECTION, SKINNER SUGGESTS THAT WHEN REINFORCEMENT IS CONTINGENT ON SPEED OF RESPONSE, FORMAL CONTROLS MAY BE WEAKENED.****27. THE NEXT SECTION DEALS WITH SOME FUNDAMENTALS OF OPERANT CONDITIONING, AND HOW SUCH CONDITIONING IMPACTS VERBAL BEHAVIOR. FIRST UP IS A POINT ABOUT UNDER WHAT CONDITIONS PEOPLE ARE "ENERGETIC, ENTHUSIASTIC, INTERESTED..." OR "PHLEGMATIC, UNINSPIRED, LETHARGIC...". WHAT ARE THESE CONDITIONS?**

The schedule of reinforcement. In essence, these describe the side-effects of schedules of reinforcement.

**28. SKINNER GOES ON TO TALK ABOUT THE EFFECTS OF OPERANT CONTINGENCIES ON THE DYNAMIC PROPERTIES OF BEHAVIOR. WHAT ARE THESE?**

A) There is no clear and consistent relation between the energy level of the speaker's behavior and the effect on the listener, as well as the ultimate reinforcer supplied by the listener. The extent of the reinforcement depends more on the energy level of the listener

B) Verbal behavior is normally very fast, and exceeds the speed of nonverbal behav-

ior. Thus, we can emit large segments of verbal behavior with reinforcement only when completed, and this fact can serve to increase effectiveness. (We can make many important statements in a short period of time, resulting in effective communication for both speaker and listener)

- C) The schedule of reinforcement is intermittent. Thus, the behavior may sometimes be weak in terms of latency and IRTs, but it may also be resistant to extinction
- D) Some forms of verbal behavior (e.g., writing) may necessarily involve delayed reinforcements. Thus, such behavior may be inherently weak, and fraught with long latencies, IRTs, etc.
- E) Although some verbal behavior may be weak because of delayed reinforcements, the net effect may be great because of the plethora of listeners (e.g., readers of novels and poems)

**29. READ OVER THE SECTIONS ON EXTINCTION AND FORGETTING. WHAT IS THE DIFFERENCE? HOW COULD YOU TELL WHICH HAS OCCURRED?**

Extinction involves the weakening of behavior because the behavior has been emitted, but not reinforced. In forgetting, behavior weakens as a function of passage of time.

To test for extinction vs. forgetting, changes the circumstances. If the behavior was extinguished, it should re-appear, as extinction effects are tied to the conditions under which it occurred.

**30. HOW DOES SKINNER EXPLAIN FORGETTING, ESPECIALLY IN REGARDS TO FORGETTING PROPER NAMES?**

- A) Infrequent reinforcement
- B) Interference from similar names or other similar people having the same name

**31. SKINNER PRESENTS HIS INTERPRETATION OF CLASSIC MEMORY EXPERIMENTS OF EBBINGHAUS AND OTHERS. THEY USED “NONSENSE” SYLLABLES TO MINIMIZE CONFOUNDS BY EVERYDAY USAGE. WHAT CLASSES OF VERBAL BEHAVIOR ARE INVOLVED? WHAT INDEPENDENT VARIABLES ARE STUDIED?**

Initially, the participant's behavior is echoic or textual. It is then a sequence of intra-verbal units that involve being presented with a stimulus (a nonsense syllable) and then recalling its paired associate. Researchers may test for these “connections” after

varying periods of time, or they may examine how many trials are needed to relearn the pairs after a varying periods of time. They may also have the participant learn similar paired associates to study interference with recall of the originals.

**32. SKINNER, IN THE NEXT SECTION (“CONTINGENCIES DETERMINING FORM”) TALKS OF SUPERSTITIONS. WHAT ARE THESE? GIVE AN EXAMPLE.**

In superstitious behavior, a response consistently has a particular element, but that element is not necessary for reinforcement. For example, a skilled baseball player may always wear red socks because there have been many reinforcers delivered when he was so attired.

**33. NOTE: SKINNER MAKES THE POINT THAT BEHAVIOR TENDS TO MOVE TOWARD THE MINIMUM WHICH SATISFIES THE CONTINGENCIES. WHY MIGHT THIS BE?**

Effort may have aversive properties (see research on FR schedules: animals tend to terminate schedules the higher the ratio size); thus, there is a net reinforcement effect that balances effort and payoff. Or, in other cases, more complex forms of behavior may be punished.

**34. NOTE: THE LAST PARAGRAPHS OF THIS SECTION DEAL WITH DETERIORATION OF FORM OF VERBAL BEHAVIOR. FIRST, SKINNER MAKES A DISTINCTION BETWEEN CHANGES IN THE SPEAKER, DUE TO CHANGES IN THE REQUIREMENTS OF PARTICULAR LISTENERS, AND CHANGES IN SPEAKER BEHAVIOR DUE TO CHANGES IN THE REINFORCING PRACTICES OF THE COMMUNITY AS A WHOLE. THE LATTER CAN BE SEEN IN THE CHANGES IN OUR VERBAL BEHAVIOR RELATED TO COMPUTERS. WE HAVE MANY NEW TERMS AND MEANINGS, AND THESE ARE REINFORCED BY THE COMMUNITY. OTHERS POINT TO THE CHANGE IN WHAT IS “ACCEPTABLE” LANGUAGE, SUCH AS DOUBLE NEGATIVES, THE USE OF “AIN’T”, ETC.**

**35. SKINNER ALSO POINTS OUT THAT THERE IS A CHANGE IN EDUCATIONAL REINFORCEMENTS FOR VERBAL BEHAVIOR AS A CHILD AGES. GIVE AN EXAMPLE. THEN, DISCUSS AT WHAT POINT THE “DETERIORATION” WILL CEASE.**

E.g.: Children learn to speak correctly and precisely at a young age. As they grow older, their Verbal behavior may become sloppy, with lack of agreement between subject and predicate, and inappropriate use of plural nouns, etc. This deterioration may continue until the contingencies are no longer satisfied, or the community begins to punish certain deteriorated forms.

**36. IN THE SECTION ON MOTIVATION, SKINNER TALKS ABOUT VARIABLES THAT WILL GENERALLY STRENGTHEN VERBAL BEHAVIOR. GIVE SOME EXAMPLES:**

- A) Cyclic changes in physiology during the day
- B) Food ingestion
- C) Sleep
- D) Aversive stimuli
- E) Drugs
- F) Age

NOTE: Skinner talks about deprivation and satiation, but only as evocative stimuli for mands and impure tacts. Control by specific deprivation and satiation is destroyed by generalized reinforcements, as in the tact, echoic, and textual.

**37. READ OVER THE “EMOTION” SECTION. FIRST, BE ABLE TO EXPLAIN SKINNER’S VIEW OF EMOTION, INCLUDING THE THREE COMPONENTS (ACTUALLY, IN *SCIENCE AND HUMAN BEHAVIOR*, HE TALKS ONLY ABOUT TWO).**

- A) Responses of the smooth muscles and glands that are respondently conditioned. These include changes in blood pressure, heart rate, respiration, and gastric motility
- B) Changes in the facial expressions and whole body reactions that can be a result of operant or respondent conditioning
- C) Changes in predispositions to act (the angry person will be more likely to aggress and attack, the happy person will be more likely to be nice and say positive things)

NOTE: In *Science and Human Behavior*, Skinner talks about emotion and includes two components: the respondents and the predisposition to emit operant behavior of various sorts, depending on controlling variables.

**38. ON THE TOP OF PAGE 216, CHECK OUT HIS STATEMENT REGARDING “ANGER”. WHAT REINFORCER MAINTAINS SUCH BEHAVIOR?**

Damage to others.

**39. IN THE REMAINING PART OF THE EMOTION SECTION, SKINNER TALKS ABOUT SOME OF THE DYNAMIC PROPERTIES OF VERBAL BEHAVIOR THAT ARE SAID**

**TO BE RELATED TO “EMOTIONAL EXPRESSION.” WHAT ARE THE UNDERLYING VARIABLES THAT MIGHT EXPLAIN THESE PROPERTIES?**

- A) To achieve a given effect on the listener – we may say aversive things in an emotional way to make the listener cry
- B) Extreme state of strength – we may be joyful as an effect of a high rate of reinforcement, or we may act in an extremely angry way when a very aversive stimulus has been contacted

**40. NOTE: CHECK OUT THE LAST PARAGRAPH ON 217. SKINNER TALKS ABOUT THE POSSIBLE EVOCATIVE VARIABLES OF THE TACT “I AM ANGRY.” THEY COMPOSE THE ELEMENTS OF EMOTION. HE REFERS TO HIS VIEW OF HOW WE COME TO TACT PRIVATE EVENTS.**

**41. IN THE FIRST PARAGRAPH IN “DAMAGED VERBAL BEHAVIOR”, SKINNER MAKES THE CASE FOR A FUNCTIONAL CLASSIFICATION OF VERBAL BEHAVIOR. EXPLAIN THIS. HE GOES ON TO DISCUSS WHICH CLASSES ARE MOST VULNERABLE TO DAMAGE. WHAT ARE THESE?**

He points out that damaged repertoires often involve problems with some controlling variables, but not others. For example, a person may be able to emit an intraverbal, but not the same word as a mand.

Skinner suggests that the most vulnerable classes are those that rely on generalized conditioned reinforcement, with the classes having minimal repertoires being the most robust (echoic and textual). Thus, tacts and intraverbals would be the most susceptible to disruption. Finally, the extent of conditioning may be important.

**42. IN THE NEXT SECTION ON “WHEN DOES VERBAL BEHAVIOR CEASE”, DISCUSS SOME OF THE VARIABLES THAT BRING VERBAL BEHAVIOR TO AN END.**

- A) When the underlying EO is weakened. For example, mands for food will be weakened by the receipt of food
- B) Skinner suggests that verbal behavior maintained by generalized reinforcement will not be quickly affected by the process in a)
- C) In verbal behavior maintained by generalized reinforcement, the termination of verbal behavior can involve the audience becoming SΔs or SPs. Thus, after a single effective tact of “That is a bird”, the audience may withhold reinforcement for additional tacts. This condition may be brought about by the mere emission of

the response

- D) There may also be S $\Delta$  or SP effects presented by the listener. (e.g., “OK, I see your point”)

NOTE: the contingencies may not apply to synonyms, so these may be emitted quickly (e.g., “Good”, “OK”, “Excellent”)

- E) Verbal behavior in general may be weakened by the “audience character”. For example, after speaking with someone, it may become clear that the person is deaf or speaks another language. This is similar to b) in that the audience becomes an S $\Delta$  for further verbal behavior
- F) Verbal behavior that is maintained by the effects on the speaker will cease when that desired effect is achieved. For example, a person may repeat to him/herself “Don’t be afraid of the dark” until the aversiveness of being in the dark decreases.

**43. IN THE FINAL SECTION OF THIS CHAPTER, SKINNER REFINES THE DEFINITION OF VERBAL BEHAVIOR. RECALL THAT HE INITIALLY SUGGESTED THAT VERBAL BEHAVIOR IS BEHAVIOR REINFORCED BY THE MEDIATION OF OTHERS. HE THEN ADDS ANOTHER, IMPORTANT ELEMENT THAT HOLDS THE LISTENER’S BEHAVIOR MUST HAVE BEEN CONDITIONED TO REINFORCE THE SPEAKER’S BEHAVIOR. THIS CONDITIONING PROCESS HAS BEEN DONE BY THE VERBAL COMMUNITY. PLEASE GIVE AN EXAMPLE AND NON-EXAMPLE OF THIS.**

E.g.: Child says “Candy” and mom gives it to her. Mom’s behavior has been conditioned by the verbal community to precisely teach and maintain the mand.

Non-e.g.: Mom has candy in her hand, and child approaches her, hits her hand, the candy flies into the air, and kid grabs it! Mom was involved in the candy procurement, but she was not conditioned by the community to do so.

CHAPTER 9  
*MULTIPLE CAUSATION*

1. WHAT ARE THE "TWO FACTS" RELATED TO FUNCTIONAL RELATIONS? GIVE EXAMPLES OF EACH.
2. IN THE FIRST PARAGRAPH ON PAGE 229, SKINNER REVIEWS THE AUDIENCE VARIABLE. THIS IS AN EXAMPLE OF AN IMPORTANT POINT ABOUT WHICH HE WILL TALK AT LENGTH. TO WIT, VERBAL BEHAVIOR WILL OFTEN REFLECT THE STRENGTHENING OF TWO OR MORE VARIABLES AT THE SAME TIME. GIVE AN EXAMPLE OF AN AUDIENCE VARIABLE AND SOME OTHER VARIABLE.
3. CHECK OUT THE END OF THE FIRST PARAGRAPH ON PAGE 229. WHAT IS BEING DESCRIBED THEREIN?
4. IN THE NEXT PARAGRAPH, WHAT ARE THE TWO KINDS OF EVIDENCE TO WHICH SKINNER REFERS?
5. IN THE SECTION ENTITLED "MULTIPLE AUDIENCES", SKINNER DISCUSSES THE EFFECTS OF COMBINATIONS OF VARIOUS AUDIENCES. TAKE EACH KIND AND PRESENT AN EXAMPLE.
6. IN THE NEXT SECTION, SKINNER TALKS OF IMPURE TACTS? IN HIS EXAMPLE, A TACT MAY ALSO BE STRENGTHENED BY MAND VARIABLES. GIVE AN EXAMPLE.



7. NOTE: IN THE SECTION ON “PUNISHMENT IN MULTIPLE CAUSATION”, SKINNER POINTS OUT THAT AVERSIVE CONSEQUENCES MAY AFFECT WHICH OF VARIOUS FORMS OF VERBAL BEHAVIOR MAY BE EMITTED. FOR EXAMPLE, SHORT RESPONSES MAY BE EMITTED OVER MORE LENGTHY FORMS (LONGER FORMS REQUIRE MORE EFFORT), GENERIC EXTENSIONS OVER METAPHOR (METAPHORS HAVE A GREATER HISTORY OF EXTINCTION OR PUNISHMENT), AND RESPONSES WITH A DIRECT HISTORY OF PUNISHMENT WILL BE WEAKENED.
  
8. SKINNER TALKS ABOUT “EUPHEMISMS.” WHAT ARE THESE, AND WHY MIGHT THESE BE EMITTED?
  
9. IN THE NEXT SECTION, SKINNER GIVES EXAMPLES OF MULTIPLE SOURCES OF STRENGTH THAT INVOLVE TACT AND INTRAVERBAL STRENGTHENING. GIVE AN EXAMPLE.
  
10. GIVE AN EXAMPLE OF THE “DOUBLE TACT” PHENOMENON IN WHICH STRENGTH COMES FROM TWO TACT SOURCES.
  
11. IN THE SECTION ON “MULTIPLE CAUSATION IN LITERATURE”, SKINNER TALKS ABOUT THE USE OF “PUNS.” WHAT IS A PUN? GIVE AN EXAMPLE OF A PUN, AND EXPLAIN HOW WE COME TO CALL IT THAT.

12. NOTE: SKINNER WRITES EXTENSIVELY ABOUT THE USE OF MULTIPLE SOURCES OF STRENGTH IN LITERATURE AND POETRY. FROM THESE PASSAGES, IT IS EASY TO SEE HOW HE WAS AN ENGLISH MAJOR!
13. ON PAGE 242, SKINNER TALKS ABOUT “BORROWING.” WHAT IS THIS ABOUT?
14. IN THE FINAL PARAGRAPH OF THIS SECTION, HE TALKS ABOUT WAYS THAT “VERBAL ART” MAY BE EMITTED IN FORMS THAT REFLECT MULTIPLE SOURCES, BUT AVOIDS PUNISHMENT. TAKE THE EXAMPLE OF “HOME, HOME ON THE RANGE...” AND EXPLAIN THIS.
15. IN THE NEXT SECTION ENTITLED “FORMAL CONTRIBUTIONS OF STRENGTH”, SKINNER BEGINS BY DEFINING A “THEMATIC” RELATION. WHAT IS THIS? GIVE AN EXAMPLE.
16. WHAT, THEN, OR FORMAL SOURCES OF STRENGTH? GIVE AN EXAMPLE.
17. SKINNER ALSO TALKS ABOUT FRAGMENTARY STIMULI THAT CAN EVOKE A FULL-BLOWN RESPONSE. GIVE AN EXAMPLE.

18. NOTE: SKINNER POINTS OUT THAT SOME RHYMING PAIRS SHOW ECHOIC FRAGMENTARY SOURCES OF STRENGTH (WEAR AND TEAR, FRICK AND FRACK, HIGH AND DRY).
19. READ OVER THE SECTION ON “FORMAL STRENGTHENING IN PROSE AND POETRY.” HE DISCUSSED SEVERAL ISSUES. IT SEEMS TO ME, HOWEVER, THAT THE MAIN POINT IS THAT POETIC TECHNIQUES SUCH AS ALLITERATION MAY REFLECT FORMAL STRENGTHENING, BUT WE SHOULD NOT BE HASTY TO CONCLUDE THIS. IT MAY BE BY “CHANCE.” NONETHELESS, THERE MAY BE MANY EXAMPLES THAT INDEED SHOW MULTIPLE STRENGTH AND EVIDENCE OF THIS “SPECIAL PROCESS.”
20. SKIP TO THE LAST PARAGRAPH ON PAGE 251. WHAT IS THIS EFFECT THAT SKINNER IS DISCUSSING?



*CHAPTER NINE. ANSWERS.*

**1. WHAT ARE THE “TWO FACTS” RELATED TO FUNCTIONAL RELATIONS? GIVE EXAMPLES OF EACH.**

- A) A given variable can have multiple effects
  - Food deprivation may strengthen “food” and “eat”
- B) A given response can be controlled by more than one variable
  - The word “food” may be evoked by an EO or by the statement “say ‘food’”

NOTE: A given variable may strengthen a whole class of responses that have common properties or “themes”. Skinner compare this phenomenon to an “attitude.” Thus, a negative attitude toward taxes means that there is an entire class of verbal behavior that has one common theme: negative statements about taxes!

**2. IN THE FIRST PARAGRAPH ON PAGE 229, SKINNER REVIEWS THE AUDIENCE VARIABLE. THIS IS AN EXAMPLE OF AN IMPORTANT POINT ABOUT WHICH HE WILL TALK AT LENGTH. TO WIT, VERBAL BEHAVIOR WILL OFTEN REFLECT THE STRENGTHENING OF TWO OR MORE VARIABLES AT THE SAME TIME. GIVE AN EXAMPLE OF AN AUDIENCE VARIABLE AND SOME OTHER VARIABLE.**

Let us say that the question posed to you is “How is your thesis coming?” This question may strengthen a host of tacts of various sorts, both positive and negative. In the presence of your thesis advisor, your verbal behavior may be a simple recounting of the procedure and tentative results. However, in the presence of one of your classmates, your verbal behavior may be a spirited recounting of how much of a “pain in the butt” the process has been.

**3. CHECK OUT THE END OF THE FIRST PARAGRAPH ON PAGE 229. WHAT IS BEING DESCRIBED THEREIN?**

Impure tact.

**4. IN THE NEXT PARAGRAPH, WHAT ARE THE TWO KINDS OF EVIDENCE TO WHICH SKINNER REFERS?**

- A) Records of speaking and writing in which the controlling variables can only be inferred. They are not known.
- B) A direct manipulation of variables of which speaking and writing are a function, and as a result, the resulting behavior may be predicted or even controlled.

**5. IN THE SECTION ENTITLED “MULTIPLE AUDIENCES”, SKINNER DISCUSSES THE EFFECTS OF COMBINATIONS OF VARIOUS AUDIENCES. TAKE EACH KIND AND PRESENT AN EXAMPLE.**

- A) Two or more audiences that have the same effect: increasing the number of people in the audience of an orator will increase the strength of oration.
- B) Two audiences that evoke different repertoires: an audience that strengthens German and another that strengthens English. The available repertoire that is common to both will be quite limited.
- C) Two audiences, one that strengthens a repertoire and another that weakens: peers who strengthen obscene talk and parents who weaken it. The repertoire may be suppressed, or emitted at low strength or energy levels.
- D) When one positive audience strengthens two forms of response, and one negative audience weakens just one form, the form that is functionally related only to the positive audience will be emitted: Bi-lingual parents may speak in the language that the child does not understand.
- E) A single response may have different effects on different audiences: “That is really great food” may be a compliment to one audience (the cook) and a sarcastic slam to another (his close friends).

NOTE: In Skinner’s examples of satire, irony, and other kinds of devices, there are two effects of a passage for two distinct audiences. The satirical effect is achieved when a person is a member of both audiences. In a sense, he/she is affected in both ways, and can tact that he/she is so affected: He can “see the irony” in the remark.

**6. IN THE NEXT SECTION, SKINNER TALKS OF IMPURE TACTS? IN HIS EXAMPLE, A TACT MAY ALSO BE STRENGTHENED BY MAND VARIABLES. GIVE AN EXAMPLE.**

A child may tact “That is candy” in the presence of candy, but also under conditions of candy deprivation.

**7. NOTE: IN THE SECTION ON “PUNISHMENT IN MULTIPLE CAUSATION”, SKINNER POINTS OUT THAT AVERSIVE CONSEQUENCES MAY AFFECT WHICH OF VARIOUS FORMS OF VERBAL BEHAVIOR MAY BE EMITTED. FOR EXAMPLE, SHORT RESPONSES MAY BE EMITTED OVER MORE LENGTHY FORMS (LONGER FORMS REQUIRE MORE EFFORT), GENERIC EXTENSIONS OVER METAPHOR (METAPHORS HAVE A GREATER HISTORY OF EXTINCTION OR PUNISHMENT), AND RESPONSES WITH A DIRECT HISTORY OF PUNISHMENT WILL BE WEAKENED.**

**8. SKINNER TALKS ABOUT “EUPHEMISMS.” WHAT ARE THESE, AND WHY MIGHT THESE BE EMITTED?**

A euphemism is a response that “understates” how unpleasant some object or event is. For example, say that there was a bomb explosion in your neighborhood, and you are describing it to a friend. You may say “Wow, that was some firecracker”. The use of the term “firecracker” instead of “bomb” may occur because the former term may generate less aversive effects on the speaker (as his/her own listener).

NOTE: Skinner suggests that which of various responses that are emitted reflect a kind of “algebraic summation” of the effects of reinforcement and punishment histories of each of the alternatives.

**9. IN THE NEXT SECTION, SKINNER GIVES EXAMPLES OF MULTIPLE SOURCES OF STRENGTH THAT INVOLVE TACT AND INTRAVERBAL STRENGTHENING. GIVE AN EXAMPLE.**

“Those candy eggs will lay you out flat” The choice of the term “lay you out flat” received supplementary strength from “eggs” (as in lay eggs). This may have been emitted instead of “Those candy eggs will make you sick” because of the presence of “eggs”. This may not have occurred if the statement was “The fried chicken will ...”.

**10. GIVE AN EXAMPLE OF THE “DOUBLE TACT” PHENOMENON IN WHICH STRENGTH COMES FROM TWO TACT SOURCES.**

In the cartoon *Rocky and Bullwinkle*, one of the villains is “Snidely Whiplash.” This is an easy name to remember, first as a proper tact (because of reinforcement history for emitting the name in his presence on the screen) and as a metaphorical extension evoked by his evil, hurtful, and devilish ways.

**11. IN THE SECTION ON “MULTIPLE CAUSATION IN LITERATURE”, SKINNER TALKS ABOUT THE USE OF “PUNS.” WHAT IS A PUN? GIVE AN EXAMPLE OF A PUN, AND EXPLAIN HOW WE COME TO CALL IT THAT.**

Pun: an amusing use of a word or phrase which has several meanings or which sounds like another word

E.g.: What is black and white and red (=read) all over? A newspaper!

E.g.: I love fish. The sole example is sushi.



These are puns when the listener can recognize the sources of multiple control. In the first example, the listener can tact the intraverbal strength of “black and white and red” and the intraverbal relation of “read” with newspaper. That the two words sound the same is amusing.

In the second example, the listener will be amused if he/she recognizes that the word “sole” has two sources of strength. In the first, it is a tact derived from the fact that there is only one objectionable fish (sole = only). In the second, it is an intraverbal strengthened by the previous mention of “fish”. (sole = kind of fish). These two sources combine to evoke the word “sole” and the listener will be amused if he/she recognizes this fact.

**12. NOTE: SKINNER WRITES EXTENSIVELY ABOUT THE USE OF MULTIPLE SOURCES OF STRENGTH IN LITERATURE AND POETRY. FROM THESE PASSAGES, IT IS EASY TO SEE HOW HE WAS AN ENGLISH MAJOR!**

**13. ON PAGE 242, SKINNER TALKS ABOUT “BORROWING.” WHAT IS THIS ABOUT?**

Borrowing is when a writer uses a similar line to that used by another author. He makes the point that in many cases, the writer does not realize this supplementary source of strength. He also points out that such borrowing is most often seen when someone memorizes a passage, which is then evoked upon contact with one of the initial words. Thus, it is most often an intraverbal source.

**14. IN THE FINAL PARAGRAPH OF THIS SECTION, HE TALKS ABOUT WAYS THAT “VERBAL ART” MAY BE EMITTED IN FORMS THAT REFLECT MULTIPLE SOURCES, BUT AVOIDS PUNISHMENT. TAKE THE EXAMPLE OF “HOME, HOME ON THE RANGE...” AND EXPLAIN THIS.**

A homesick failure may find that whining and complaining are strong (perhaps some form of mand with tact properties). But, direct complaining may be punished, so a “complaining” song with intraverbal strength throughout will avoid punishment. (refer back to a previous section in which classes of behavior may be strong, and the punished forms are not emitted: recall the algebraic summation concept).

- 15. IN THE NEXT SECTION ENTITLED “FORMAL CONTRIBUTIONS OF STRENGTH”, SKINNER BEGINS BY DEFINING A “THEMATIC” RELATION. WHAT IS THIS? GIVE AN EXAMPLE.**

Two responses are related “thematically” if they are strengthened by the same variable, but have no point to point correspondence.

E.g.: food deprivation may strengthen “food” and “grub”.

- 16. WHAT, THEN, OR FORMAL SOURCES OF STRENGTH? GIVE AN EXAMPLE.**

These refer to echoic and textual stimuli that strengthen behavior with point to point correspondence.

E.g.: Let us say that you are trying to remember someone’s name: Linda. You over hear a conversation in which people are talking about the movie star Linda Hunt. This talk, especially the stimulus “Linda” strengthen “Linda” in your repertoire. This is essentially an echoic stimulus.

- 17. SKINNER ALSO TALKS ABOUT FRAGMENTARY STIMULI THAT CAN EVOKE A FULL-BLOWN RESPONSE. GIVE AN EXAMPLE.**

Let us say that you are trying to remember someone’s name: Linda. You over hear a conversation in which people are talking about the aviator Charles Lindberg. This talk, especially the fragmentary stimulus “Lin” strengthen “Linda” in your repertoire. This is essentially an fragmentary echoic stimulus.

- 18. NOTE: SKINNER POINTS OUT THAT SOME RHYMING PAIRS SHOW ECHOIC FRAGMENTARY SOURCES OF STRENGTH (WEAR AND TEAR, FRICK AND FRACK, HIGH AND DRY).**

- 19. READ OVER THE SECTION ON “FORMAL STRENGTHENING IN PROSE AND POETRY.” HE DISCUSSED SEVERAL ISSUES. IT SEEMS TO ME, HOWEVER, THAT THE MAIN POINT IS THAT POETIC TECHNIQUES SUCH AS ALLITERATION MAY REFLECT FORMAL STRENGTHENING, BUT WE SHOULD NOT BE HASTY TO CONCLUDE THIS. IT MAY BE BY “CHANCE.” NONETHELESS, THERE MAY BE MANY EXAMPLES THAT INDEED SHOW MULTIPLE STRENGTH AND EVIDENCE OF THIS “SPECIAL PROCESS.”**

**20. SKIP TO THE LAST PARAGRAPH ON PAGE 251. WHAT IS THIS EFFECT THAT SKINNER IS DISCUSSING?**

When someone begins to speak, he/she is contacting a host of echoic, textual, and intraverbal stimuli that may strengthen other behavior. Over time, if the intraverbal stimuli become strong, the verbal behavior may become a “flight of ideas” unconstrained by the original evocative variables (topic of the Verbal behavior), and instead evoked by “what was just said.” Or if the stimuli contribute formal strength, the resulting Verbal behavior may become sing-song or gibberish.

On the other hand, multiple sources of strength, if appropriate to the topic at hand, may guarantee a cohesiveness to the verbal behavior that is effective for all concerned.



CHAPTER 10  
*SUPPLEMENTARY STIMULATION*

1. CHECK OUT THE LAST PARAGRAPH ON PAGE 253 THAT CONTINUES ONTO PAGE 254. HE TALKS ABOUT STRENGTHENING THE BEHAVIOR OF DRAWING A CAT, AND ACTUALLY STRENGTHENING THE MAND FOR “PENCIL” SO THAT PICTURE CAN BE DRAWN. EXAMINE THIS PROCEDURE CAREFULLY. WHAT PHENOMENON IS BEING MANIPULATED TO PRODUCE THE MAND “PENCIL?”

2. GIVE SOME OTHER EXAMPLES OF STRENGTHENING “PENCIL” THROUGH USING SUPPLEMENTARY STIMULATION.

3. WHAT IS THE DIFFERENCE BETWEEN PROBES AND PROMPTS?

4. BE ABLE TO CREATE A TABLE THAT SHOWS THE FOUR KINDS OF PROMPTS/ PROBES.

Formal Prompts:	Thematic Prompts
Formal Probes:	Thematic Probes:

5. NOTE: FORMAL PROBES AND PROMPTS CAN BE ECHOIC AND TEXTUAL.

6. DESCRIBE HOW THE VERBAL SUMMATOR WORKS AND HOW ONE MIGHT USE IT.

7. DESCRIBE THE VISUAL FORM OF THE VERBAL SUMMATOR.

8. NOTE: IN THIS ENTIRE SECTION, SKINNER IS PROVIDING A BEHAVIORAL INTERPRETATION OF PROJECTIVE TESTS. HIS TREATMENT IS VINTAGE SKINNER: TAKING TRADITIONAL PSYCHOLOGICAL TECHNIQUES AND EXPLAINING THEIR RESULTS IN BEHAVIORAL TERMS. HE IS NOT “REJECTING” THEM AS MANY WOULD GUESS, BUT INSTEAD HE IS MERELY EXPLAINING THE PROCEDURES AND RESULTS BY APPEALING TO KNOWN BEHAVIORAL PRINCIPLES.
9. WHAT IS THE EFFECT OF “AWARENESS” IN A THEMATIC PROBE?
10. NOTE: IN THE SECTION ON “STRENGTHENING VERBAL BEHAVIOR IN THE LISTENER” SKINNER DISCUSSES INTERACTIONS BETWEEN SPEAKER AND LISTENER THAT INVOLVE SUPPLEMENTARY STIMULATION. IN THESE, BOTH ARE UNDER CONTROL BY THE SAME VARIABLES.
11. WHAT IS THE DIFFERENCE BETWEEN INSTRUCTION AND SUPPLEMENTARY STIMULATION?
12. NOTE: IN THIS ENTIRE SECTION, SKINNER TALKS OF A SPEAKER AND LISTENER WHO BOTH POSSESS A STRONG REPERTOIRE OF VERBAL BEHAVIOR REGARDING A PARTICULAR TOPIC. THE SPEAKER THEN PROVIDES SUPPLEMENTARY STIMULATION THAT EVOKES A SIMILAR SET OF VERBAL BEHAVIOR IN THE LISTENER. THUS, BOTH ARE TALKING ABOUT THE SAME THING, AND FOR THE SAME REASONS. GIVE AN EXAMPLE OF THIS PHENOMENON.
13. IN THE FOLLOWING PARAGRAPHS, SKINNER TAKES ON ANOTHER PHENOMENON, THAT OF EISEGESIS. WHAT IS THIS? GIVE AN EXAMPLE.

14. NOTE: EISEGESIS CAN BE FRAGMENTARY, AS IN THE EXAMPLE OF “I’M JUST TOO DANCED OUT”. THE BEHAVIOR STRENGTHENED IS NOT IDENTICAL TO THAT OF THE SPEAKER.
  
15. IN THE BOTTOM OF PAGE 271 AND TOP OF PAGE 272, SKINNER REFERS TO A CONTINUUM. WHAT IS THIS?
  
16. SKINNER ALSO POINTS OUT THAT THE SPEAKER’S SUPPLEMENTAL STIMULATION MAY EVOKE BEHAVIOR THAT IS NOT STRONG IN THE LISTENER’S REPERTOIRE. GIVE AN EXAMPLE.
  
17. IN THE NEXT SECTION ON “THEMATIC CORRESPONDENCE BETWEEN SPEAKER AND LISTENER”, SKINNER MAKES AN INTERESTING POINT ABOUT WHAT WE READ AND WHAT WE ARE LIKELY TO SAY. WHAT IS THIS ABOUT?
  
18. WHY DO READERS REQUIRE THIS SUPPLEMENTARY STIMULATION?
  
19. IN SKINNER’S TERMS, WHAT IS A “UNIVERSAL” BOOK?



20. CONTRAST ALLPORT'S VIEW OF AUTOBIOGRAPHIES AND THAT OF SKINNER'S.

21. IN THE NEXT SECTION ON "BUILDING CORRESPONDENCE..." SKINNER TALKS ABOUT THE EFFORTS OF WRITERS AND SPEAKERS TO BUILD A "MATCH" BETWEEN THEIR BEHAVIOR AND THAT OF THE READER/LISTENER. FIRST, GIVE AN EXAMPLE OF THIS IN NOVELS.

22. CHECK OUT SKINNER'S VIEW OF AN OPINION. WHAT IS THIS? GIVE A PRACTICAL EXAMPLE. HOW IS THIS RELATED TO SUPPLEMENTARY STIMULATION?

23. WHAT IS THE ROLE OF "REPETITION?"

24. THE NEXT SECTION IS "UNDERSTANDING." THE FIRST PARAGRAPH INVOLVES ONE WAY OF LOOKING AT UNDERSTANDING. WHAT IS THIS?

25. HOWEVER, THERE IS ANOTHER, MORE SUBTLE, WAY OF TALKING ABOUT UNDERSTANDING. WHAT IS THIS? GIVE AN EXAMPLE.

26. NOTE HIS VIEW OF “MISUNDERSTANDING.” WE MISUNDERSTAND WHEN WE SAY THE SAME THING FOR DIFFERENT, INCORRECT REASONS.

27. WHAT IS THE ULTIMATE OUTCOME OF COMING TO UNDERSTAND A DIFFICULT TEXT?

28. NOW, CHECK OUT THE PARAGRAPH ON 280 WHERE HE SAYS “ONE OF THE PRINCIPLE EFFECTS...” EXPLAIN HIS POINT. DO YOU AGREE WITH IT?

29. IN THE NEXT SECTION, SKINNER TALKS ABOUT WAYS TO USE “TRICKS OF STRENGTH.” WHAT ARE SOME OF THESE?

30. NOTE: THE NEXT SECTION IS ON “STYLE” WHICH GOES A LITTLE FAR AFIELD. SUFFICE IT TO SAY THAT A WRITER/SPEAKER’S STYLE CAN INVOLVE TECHNIQUES OF RHYMING, ALLITERATION, AND RHYTHMS. AS IN THE CURRENT CHAPTER, MULTIPLE SOURCES OF CONTROL ARE USED. FOR EXAMPLE, IN RHYMES, THERE ARE BOTH THEMATIC AND FORMAL SOURCES OF STRENGTH.

31. GO TO THE BOTTOM OF 284 WHERE SKINNER TALKS OF THE TWO ELEMENTS OF LITERARY WORK. WHAT ARE THEY? WHAT IS THE THIRD THAT SKINNER ADDS?
32. ON THE TOP OF 286, SKINNER MAKES A POINT ABOUT WIT AND HUMOR. WHAT IS THIS? GIVE AN EXAMPLE.
33. CHECK OUT THE TOP OF 288. THERE IS A STORY ABOUT AN ENGLISHWOMAN AND NAPOLEON III. WHAT IS THIS ALL ABOUT? WHY WAS IT CONSIDERED WITTY? MAKE SURE YOU TRANSLATE THE FRENCH AND LATIN PHRASES IN THIS DESCRIPTION.
34. NOTE: THE FINAL SECTION IS ON VERBAL PUZZLES AND GAMES. HE SUGGESTS THAT THEY INVOLVE ARRANGEMENTS OF PROBES AND PROMPTS. CHECK OUT THE DISCUSSION OF CROSSWORD PUZZLES, WHICH INVOLVE INTRAVERBAL STIMULI IN THE CLUES, AND FORMAL PROMPTS OF INTERSECTING WORDS.



*CHAPTER TEN. ANSWERS.*

1. **CHECK OUT THE LAST PARAGRAPH ON PAGE 253 THAT CONTINUES ONTO PAGE 254. HE TALKS ABOUT STRENGTHENING THE BEHAVIOR OF DRAWING A CAT, AND ACTUALLY STRENGTHENING THE MAND FOR “PENCIL” SO THAT PICTURE CAN BE DRAWN. EXAMINE THIS PROCEDURE CAREFULLY. WHAT PHENOMENON IS BEING MANIPULATED TO PRODUCE THE MAND “PENCIL?”**

This is a conditioned establishing operation (CEO). A reward is offered for a picture of a cat, and paper is provided. This sets up a condition in which receipt of a pencil is reinforcing. Thus, manding for the pencil is high probability.

2. **GIVE SOME OTHER EXAMPLES OF STRENGTHENING “PENCIL” THROUGH USING SUPPLEMENTARY STIMULATION.**

- A) Background echoic stimuli (“pencil” on a recording)
- B) Textual stimuli (the word “pencil” printed on a sign)
- C) Intraverbal stimuli (“pen and \_\_\_”)

NOTE: Make note of Skinner’s point about practical control exerted by supplemental stimuli. This goal is ubiquitous in his writings.

3. **WHAT IS THE DIFFERENCE BETWEEN PROBES AND PROMPTS?**

Prompts: the operator (prompter) can identify the response to be emitted in the speaker

Probes: the operator (prober) can not identify the response to be emitted in the speaker

4. **BE ABLE TO CREATE A TABLE THAT SHOWS THE FOUR KINDS OF PROMPTS/PROBES.**

<p style="text-align: center;">Formal Prompts:</p> <p>Can identify response and point to point correspondence.</p> <p>E.g.: Director whispering actor’s line in the wings.</p>	<p style="text-align: center;">Thematic Prompts:</p> <p>Can identify response, but no point to point correspondence. Intraverbal strengthening.</p> <p>E.g.: Director gives a hint as to what line is to actor.</p>
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Formal Probes:	Thematic Probes
Can not identify response, but point to point correspondence.	Can not identify response, but no point to point correspondence.
E.g.: Verbal summator; Person gives hint to himself when trying to remember a word (“It sounds like ‘horse’”).	E.g.: Person gives hint to himself when trying to remember a word. (“It had to do with animals”); word association tests.

**5. NOTE: FORMAL PROBES AND PROMPTS CAN BE ECHOIC AND TEXTUAL.**

**6. DESCRIBE HOW THE VERBAL SUMMATOR WORKS AND HOW ONE MIGHT USE IT.**

It is a recording of vague speech sounds at low intensity that provide echoic probes to a person. The subject will usually “hear something” that, when analyzed, could reveal the operation of other variables that are currently strengthening certain verbal behavior. For example, if a person has just lost a loved one, the person may hear words such as “death”, “dying”, “loss”, “tragedy” etc. Essentially, the stimuli are vague enough to not strengthen particular responses, but will provide supplementary strength to already existing verbal operants. Note that when a given operant is emitted, it may itself provide additional echoic or intraverbal strengthening to additional operants.

**7. DESCRIBE THE VISUAL FORM OF THE VERBAL SUMMATOR.**

Estes invented a way to present patterns of letters either very briefly or out of focus. The subject was to then emit textual responses to the material.

**8. NOTE: IN THIS ENTIRE SECTION, SKINNER IS PROVIDING A BEHAVIORAL INTERPRETATION OF PROJECTIVE TESTS. HIS TREATMENT IS VINTAGE SKINNER: TAKING TRADITIONAL PSYCHOLOGICAL TECHNIQUES AND EXPLAINING THEIR RESULTS IN BEHAVIORAL TERMS. HE IS NOT “REJECTING” THEM AS MANY WOULD GUESS, BUT INSTEAD HE IS MERELY EXPLAINING THE PROCEDURES AND RESULTS BY APPEALING TO KNOWN BEHAVIORAL PRINCIPLES.**

**9. WHAT IS THE EFFECT OF “AWARENESS” IN A THEMATIC PROBE?**

If a subject knows what the test is about, he/she may change their responses through an editing process described later.

**10. NOTE: IN THE SECTION ON “STRENGTHENING VERBAL BEHAVIOR IN THE LISTENER” SKINNER DISCUSSES INTERACTIONS BETWEEN SPEAKER AND LISTENER THAT INVOLVE SUPPLEMENTARY STIMULATION. IN THESE, BOTH ARE UNDER CONTROL BY THE SAME VARIABLES.**

**11. WHAT IS THE DIFFERENCE BETWEEN INSTRUCTION AND SUPPLEMENTARY STIMULATION?**

Instruction involves creating new functional relations. Supplementary stimulation involves strengthening existing behavior in the repertoire.

**12. NOTE: IN THIS ENTIRE SECTION, SKINNER TALKS OF A SPEAKER AND LISTENER WHO BOTH POSSESS A STRONG REPERTOIRE OF VERBAL BEHAVIOR REGARDING A PARTICULAR TOPIC. THE SPEAKER THEN PROVIDES SUPPLEMENTARY STIMULATION THAT EVOKES A SIMILAR SET OF VERBAL BEHAVIOR IN THE LISTENER. THUS, BOTH ARE TALKING ABOUT THE SAME THING, AND FOR THE SAME REASONS. GIVE AN EXAMPLE OF THIS PHENOMENON.**

In graduate school, the students may be predisposed to talk in certain ways about behavior. In ours, the preferred way is a behavioral interpretation of events. Thus, when we talk to each other, our repertoires match very closely, and we only need a speaker to evoke these “latent” verbal episodes. This is probably seen most often in second or third year students, who have extensive training in the field. However, in first year students or undergraduates, this phenomenon is not present, as the speaker is engaging in “instruction.”

**13. IN THE FOLLOWING PARAGRAPHS, SKINNER TAKES ON ANOTHER PHENOMENON, THAT OF EISEGESIS. WHAT IS THIS? GIVE AN EXAMPLE.**

Eisegesis is when supplementary stimulation evokes some verbal behavior in the listener, which has the same topography as the verbal behavior of the speaker, but has different controlling variables (i.e., a different meaning).

E.g.. Speaker: “That kid is something again!” (evoked by seeing a child do well on a math task)

Listener: “That kid is something again!” (evoked by the speaker’s remark, and after struggling with the same child for an hour before he finally completed the math task)



**14. NOTE: EISEGESIS CAN BE FRAGMENTARY, AS IN THE EXAMPLE OF “I’M JUST TOO DANCED OUT”. THE BEHAVIOR STRENGTHENED IS NOT IDENTICAL TO THAT OF THE SPEAKER.**

**15. IN THE BOTTOM OF PAGE 271 AND TOP OF PAGE 272, SKINNER REFERS TO A CONTINUUM. WHAT IS THIS?**

On one end of the continuum, we do not enjoy hearing someone say what is at full strength in our own repertoire. On the other end, we do not enjoy hearing or find no utility in hearing someone talk about something that has no parallel in our repertoire. For example, speaker who makes obvious points, or a speaker who talks about completely unfamiliar topics, has not much of an interested audience. Note that there is a parallel with nonverbal behavior. (Being shown how to do something we already know how to do, or something that we have no interest in doing)

**16. SKINNER ALSO POINTS OUT THAT THE SPEAKER’S SUPPLEMENTAL STIMULATION MAY EVOKE BEHAVIOR THAT IS NOT STRONG IN THE LISTENER’S REPERTOIRE. GIVE AN EXAMPLE.**

When a speaker may say something that evokes a solution by the listener to a difficult problem.

**17. IN THE NEXT SECTION ON “THEMATIC CORRESPONDENCE BETWEEN SPEAKER AND LISTENER”, SKINNER MAKES AN INTERESTING POINT ABOUT WHAT WE READ AND WHAT WE ARE LIKELY TO SAY. WHAT IS THIS ABOUT?**

Readers choose books that supplement verbal behavior that is already at strength. Thus, our enjoyment comes when the book evokes Verbal behavior that we, as readers, already tend to say.

**18. WHY DO READERS REQUIRE THIS SUPPLEMENTARY STIMULATION?**

- A) Lack of an appropriate audience.
- B) Reader may be less energetic or less imaginative
- C) History of punishment for such behavior. Thus, we may be punished for acting aggressively or in a sexual manner, but we are not punished for reading about it.

**19. IN SKINNER'S TERMS, WHAT IS A "UNIVERSAL" BOOK?**

A book that strengthens latent repertoires in many people.

**20. CONTRAST ALLPORT'S VIEW OF AUTOBIOGRAPHIES AND THAT OF SKINNER'S.**

Allport: Autobiographies are interesting because they satisfy the reader's own self love.

Skinner: Most people have strong behavior of talking about themselves (which is reinforcing), and autobiographies supply the effect supplementary stimulation that evokes such behavior (also applies to stories written in the first person).

**21. IN THE NEXT SECTION ON "BUILDING CORRESPONDENCE..." SKINNER TALKS ABOUT THE EFFORTS OF WRITERS AND SPEAKERS TO BUILD A "MATCH" BETWEEN THEIR BEHAVIOR AND THAT OF THE READER/LISTENER. FIRST, GIVE AN EXAMPLE OF THIS IN NOVELS.**

In novels, a writer will have lively dialog among the characters such that the reader will almost "join in." In a sense, the text provides supplementary stimuli that evoke behavior that is already in strength in the reader's repertoire. In this situation, the reader is said to "identify" with one of the characters. This is not apparent in descriptions of nonverbal events.

**22. CHECK OUT SKINNER'S VIEW OF AN OPINION. WHAT IS THIS? GIVE A PRACTICAL EXAMPLE. HOW IS THIS RELATED TO SUPPLEMENTARY STIMULATION?**

An opinion, according to Skinner, is a thematic collection of responses regarding some state of affairs. For example, we have a stimulus money coming to us. Some people have a negative opinion about this, which means that they tend to make negative or disparaging remarks about it. Interestingly, one's opinion of this policy tends to relate to political party affiliation. Thus, a Democratic speaker promoting the stimulus to a Democratic audience will strengthen an already existing repertoire, because the stimulus package is promoted by a Democratic president. On the other hand, a Republican speaker arguing against the stimulus package to a Republican audience will strengthen an already existing repertoire against the stimulus, because the stimulus package is promoted by a Democratic president.

**23. WHAT IS THE ROLE OF “REPETITION?”**

A speaker may increase the effect of a supplementary stimulus by repeating it.

NOTE: To end this section, Skinner suggests that speakers may use the above techniques to strengthen useful or important behavior in the listener. It may involve ultimate support for the speaker’s position.

**24. THE NEXT SECTION IS “UNDERSTANDING.” THE FIRST PARAGRAPH INVOLVES ONE WAY OF LOOKING AT UNDERSTANDING. WHAT IS THIS?**

In general terms, understanding something is behaving appropriately to it. For example, responding emotionally to a passage with intended emotional effects means that we understand; in addition, responding to a direction or request means that we understand it.

**25. HOWEVER, THERE IS ANOTHER, MORE SUBTLE, WAY OF TALKING ABOUT UNDERSTANDING. WHAT IS THIS? GIVE AN EXAMPLE.**

We understand a remark when we can make the same remark for the same reasons. For example, a student understands “positive reinforcement” if he can not only recite the definition in echoic form, but also tact the definition under the control of the essential elements (in a situation where there is a consequence that increases the rate of the behavior).

**26. NOTE HIS VIEW OF “MISUNDERSTANDING.” WE MISUNDERSTAND WHEN WE SAY THE SAME THING FOR DIFFERENT, INCORRECT REASONS.****27. WHAT IS THE ULTIMATE OUTCOME OF COMING TO UNDERSTAND A DIFFICULT TEXT?**

In the end, we come to make responses that occur not for textual reasons, but for other reasons that the author intended. This may occur after several repetitions.

**28. NOW, CHECK OUT THE PARAGRAPH ON 280 WHERE HE SAYS “ONE OF THE PRINCIPLE EFFECTS...” EXPLAIN HIS POINT. DO YOU AGREE WITH IT?**

Point: One of the essential effects of verbal behavior is to strengthen corresponding behavior in the listener. It does not create new behavior in the listener, but instead

clarifies or strengthens existing behavior.

Agree? No. See discussion on function altering effects of rules.

**29. IN THE NEXT SECTION, SKINNER TALKS ABOUT WAYS TO USE “TRICKS OF STRENGTH.” WHAT ARE SOME OF THESE?**

- A) Weakening the listener's response before it is even emitted: the speaker may address anticipated objections.
- B) Allowing and leading the listener to make a key response on his/her own: using insinuation, innuendo, or implication such as “you know who just ate the entire loaf of bread!” (when the now obvious response is the owner’s dog).
- C) Writer sets down a passage that is so weak that the reader is likely to emit a stronger form, or so contrary to the evidence that the reader is led to deny or correct: “This is a real pretty picture” to the aftermath of a child’s tantrum.
- D) Sarcasm: Writer/speaker makes a statement that is obviously untrue: “The kid had a real great day” after a day with many tantrums.

**30. NOTE: THE NEXT SECTION IS ON “STYLE” WHICH GOES A LITTLE FAR AFIELD. SUFFICE IT TO SAY THAT A WRITER/SPEAKER’S STYLE CAN INVOLVE TECHNIQUES OF RHYMING, ALLITERATION, AND RHYTHMS. AS IN THE CURRENT CHAPTER, MULTIPLE SOURCES OF CONTROL ARE USED. FOR EXAMPLE, IN RHYMES, THERE ARE BOTH THEMATIC AND FORMAL SOURCES OF STRENGTH.**

**31. GO TO THE BOTTOM OF 284 WHERE SKINNER TALKS OF THE TWO ELEMENTS OF LITERARY WORK. WHAT ARE THEY? WHAT IS THE THIRD THAT SKINNER ADDS?**

- A) Form of the work (“nice noises” in some poems)
- B) Meaning of the work (The work may describe something that is reinforcing)
- C) That the reader is “prepared” by the text to engage in existing behavior

**32. ON THE TOP OF 286, SKINNER MAKES A POINT ABOUT WIT AND HUMOR. WHAT IS THIS? GIVE AN EXAMPLE.**

Skinner opines that stimuli that supplement and evoke a weak response is often funny. The remark is often “far fetched” and for that reason may be amusing. For example, the story about the dentist who is fixing his car and takes the sparkplug by the pliers, and then remarks “Now this is going to hurt a little.” This remark is weak (we don’t talk to our cars very often), and is clearly a metaphor evoked by the fact that he was pulling something out.

NOTE: wit is also experienced if we recognize the multiple sources of strength. See the example of the “fertile” attorney. This is funny when the reader recognizes that “fertile” has two sources of strength: his hometown, and the fact that he has fathered 18 kids!

**33. CHECK OUT THE TOP OF 288. THERE IS A STORY ABOUT AN ENGLISHWOMAN AND NAPOLEON III. WHAT IS THIS ALL ABOUT? WHY WAS IT CONSIDERED WITTY? MAKE SURE YOU TRANSLATE THE FRENCH AND LATIN PHRASES IN THIS DESCRIPTION.**

Napoleon III was exiled in England, and received assistance from an Englishwoman during that time. Upon return to the throne, he virtually ignored the woman. When there was a meeting between the two, he asked “*Restez-vous longtemps a Paris*” which means “Are you staying long in Paris?”. After her reply, she remarked “*Et vous, sire?*” which means “And you, sir?” This closing remark was evoked by the same variables as if she had said “You will not be on the throne long.” In a sense, it was an aggressive remark, but witty because it was unpunishable. Skinner suggests that the witty verbal community exacts a *quid pro quo* for such remarks. They will be tolerated if amusing.

**34. NOTE: THE FINAL SECTION IS ON VERBAL PUZZLES AND GAMES. HE SUGGESTS THAT THEY INVOLVE ARRANGEMENTS OF PROBES AND PROMPTS. CHECK OUT THE DISCUSSION OF CROSSWORD PUZZLES, WHICH INVOLVE INTRAVERBAL STIMULI IN THE CLUES, AND FORMAL PROMPTS OF INTERSECTING WORDS.**



## CHAPTER 11

### *NEW COMBINATIONS OF FRAGMENTARY RESPONSES*

1. IN THIS CHAPTER, SKINNER WILL BE DISCUSSING THE OUTCOME OF TWO SETS OF VARIABLES THAT WHEN COMBINED, EVOKE FRAGMENTS OF THEIR RESPECTIVE RESPONSE INTO A KIND COMBINATION REMARK. WHAT ARE SOME OF THE CONDITIONS IN WHICH SUCH RECOMBINATIONS CAN BE SEEN?
  
2. NOTE: SKINNER MAKES THE POINT THAT SOMETIMES THE RECOMBINED RESPONSE HAS EQUAL INPUT FROM EACH CONTRIBUTING RESPONSE, OR SOMETIMES ONE OF THE TWO DOMINATES.
  
3. GIVE AN EXAMPLE OF A WORD BLEND AND OF A PHRASE BLEND.
  
4. SKINNER ALSO TALKS OF THE BLENDING OF WRITTEN WORD AND A PICTORIAL REPRESENTATION OF AN ARTIST. GIVE AN EXAMPLE.
  
5. SKINNER ALSO PRESENTS SOME EXAMPLES OF BLENDING OF TWO WORDS THAT RESULTS IN SOME OMISSIONS. GIVE AN EXAMPLE.



6. THE NEXT SECTION DEALS WITH THE EVOCATIVE VARIABLES OF RECOMBINED BLENDS. IN THE FIRST PARAGRAPH, HE TALKS ABOUT THREE SETS OF CONDITIONS THAT MAY BE INVOLVED. WHAT ARE THEY?
  
7. GIVE AN EXAMPLE OF MISHEARING OR MISREADING AND EXPLAIN IT.
  
8. TWO OTHER VARIABLES THAT MIGHT BE RELEVANT IN BLENDS ARE A SELF-ECHOIC TENDENCY AND PUNISHMENT. EXPLAIN THESE TWO VARIABLES.
  
9. IN “THE RESULTS OF RECOMBINATION” SKINNER TALKS ABOUT THE OUTCOMES OF THE AFOREMENTIONED BLENDS. DESCRIBE SOME OF THESE.
  
10. WHAT ARE “METATHESES”, ALSO KNOWN AS “SPOONERISMS”?
  
11. NOTE: READ OVER THE SECTION ON “WITTY AND STYLISTIC EFFECTS.” ALL OF THESE INVOLVE DISTORTIONS AND MULTIPLE SOURCES OF STRENGTH. THE OGDEN NASH POETRY IS AMUSING. NOTE THE USE OF DISTORTED GEOGRAPHICAL NAMES FOR CONVENTIONAL EXPRESSIONS ON PAGE 305.

**12. NOTE: SKINNER CONCLUDES BY RE-STATING THE POINT ABOUT MINIMAL UNITS IN THE ECHOIC AND TEXTUAL REPERTOIRES, AND THE FACT THAT FRAGMENTS OF TACTS AND INTRAVERBALS MAY BE UNDER FUNCTIONAL CONTROL. THESE FACTS EXPLAIN THE BLENDING AND DISTORTIONS OF THE CURRENT CHAPTER.**

*CHAPTER ELEVEN. ANSWERS.*

1. **IN THIS CHAPTER, SKINNER WILL BE DISCUSSING THE OUTCOME OF TWO SETS OF VARIABLES THAT WHEN COMBINED, EVOKE FRAGMENTS OF THEIR RESPECTIVE RESPONSE INTO A KIND COMBINATION REMARK. WHAT ARE SOME OF THE CONDITIONS IN WHICH SUCH RECOMBINATIONS CAN BE SEEN?**

- A) When response are poorly conditioned
- B) Under illness, fatigue, or drugs
- C) When strong competing behavior is present
- D) There are strong aversive variables or variables that are evoked behavior without regard to form

2. **NOTE: SKINNER MAKES THE POINT THAT SOMETIMES THE RECOMBINED RESPONSE HAS EQUAL INPUT FROM EACH CONTRIBUTING RESPONSE, OR SOMETIMES ONE OF THE TWO DOMINATES.**

3. **GIVE AN EXAMPLE OF A WORD BLEND AND OF A PHRASE BLEND.**

Word: snarl and tangle leads to snangle.

Phrase: you're probably true from you're probably right, and it's probably true

4. **SKINNER ALSO TALKS OF THE BLENDING OF WRITTEN WORD AND A PICTORIAL REPRESENTATION OF AN ARTIST. GIVE AN EXAMPLE.**

Writing the word "tall" in elongated letters; mathematicians writings that resemble figures; musicians writings that resemble notes.

5. **HE ALSO PRESENTS SOME EXAMPLES OF BLENDING OF TWO WORDS THAT RESULTS IN SOME OMISSIONS. GIVE AN EXAMPLE.**

*Sorry darling* being blended into *Sarling*, *slightly fatter* into *slatter*.

NOTE: these blends are not like merely eliminating some of the word elements, as in nonse for nonsense. This is not a blending, just omissions.

**6. THE NEXT SECTION DEALS WITH THE EVOCATIVE VARIABLES OF RECOMBINED BLENDS. IN THE FIRST PARAGRAPH, HE TALKS ABOUT THREE SETS OF CONDITIONS THAT MAY BE INVOLVED. WHAT ARE THEY?**

- A) One variable may strongly evoke two responses (two or more tacts for the same item: rone for rock and stone)
- B) When a controlling property is vague (ineffective), two responses that have different meanings may be evoked (Teablespoonful evoked when the size of the measure is unclear between tablespoonful and teaspoonful)
- C) Different properties of the same stimulus may evoke two responses (twinfants)

NOTE: the multiple sources may show the interaction of tacts, tacts and intraverbals, and intraverbals.

**7. GIVE AN EXAMPLE OF MISHEARING OR MISREADING AND EXPLAIN IT.**

Skinner's presents an example of a motorist who narrowly avoids a serious accident, and then comes upon a sign that reads "One mile to Bath", but reads it as "One mile to Death". The textual stimuli are supplemented by the close call to evoke "Death" instead of "Bath."

**8. TWO OTHER VARIABLES THAT MIGHT BE RELEVANT IN BLENDS ARE A SELF-ECHOIC TENDENCY AND PUNISHMENT. EXPLAIN THESE TWO VARIABLES.**

- Self-echoic: we have strong echoic repertoires, so there are sometimes distortions that arise from that fact. For example, Skinner presented the following: I have a prettier doll which I left in the citier. "Citier" arose from a momentary self echoic tendency related to "prettier."
- Punishment: Histories of punishment may produce distortions. Instead of "I knew that person personally", a history of punishment for repetition may produce "I knew that person peopally." "peopally" is substituted for "person" but is emitted as a blend of "people" and "personally."

**9. IN "THE RESULTS OF RECOMBINATION" SKINNER TALKS ABOUT THE OUTCOMES OF THE AFOREMENTIONED BLENDS. DESCRIBE SOME OF THESE.**

- A) Nonsense: a new, ineffective form emerges.
- B) Standard form that is inappropriate: Heresy + sacrilege = heritage

- C) OK form related to a current variable: I am ravished! Uttered by a young lady at dinner with a suitor. (famished + ravenous + effects of a handsome, available companion)
- D) New usage that is allowed to stand: Cold-boiled from hard-boiled and cold-blooded.
- E) New form that is adopted: fog and smoke = smog

**10. WHAT ARE “METATHESES”, ALSO KNOWN AS “SPOONERISMS”?**

When a blend occurs, the accompanying fragments still appear. “A crown of thorns” becomes “A thown of croorns”. Note the reference to W. A. Spooner, who was famous for these kinds of blends. My mom has a few of these. One relates to her alma mater, which is Lake Erie College for Women; she sometimes refers to it as Lake College for Eerie Women.

**11. NOTE: READ OVER THE SECTION ON “WITTY AND STYLISTIC EFFECTS.” ALL OF THESE INVOLVE DISTORTIONS AND MULTIPLE SOURCES OF STRENGTH. THE OGDEN NASH POETRY IS AMUSING. NOTE THE USE OF DISTORTED GEOGRAPHICAL NAMES FOR CONVENTIONAL EXPRESSIONS ON PAGE 305.**

**12. NOTE: SKINNER CONCLUDES BY RE-STATING THE POINT ABOUT MINIMAL UNITS IN THE ECHOIC AND TEXTUAL REPERTOIRES, AND THE FACT THAT FRAGMENTS OF TACTS AND INTRAVERBALS MAY BE UNDER FUNCTIONAL CONTROL. THESE FACTS EXPLAIN THE BLENDING AND DISTORTIONS OF THE CURRENT CHAPTER.**

CHAPTER 12  
*THE AUTOCLITIC*

1. NOTE: IN THE FIRST COUPLE OF PARAGRAPHS, SKINNER REVIEWS HIS OBJECTION TO “INNER CAUSES.” ON THE BOTTOM OF 312, AND TOP OF 313, HE REFERS TO “TWO SYSTEMS OF RESPONSES, ONE BASED UPON THE OTHER.” IN THIS, A SPEAKER MAY, FOR EXAMPLE, EMIT A TACT THAT DESCRIBES A BLUE SKY (“WHAT A DEEP BLUE SKY”); MOREOVER, THE SPEAKER MAY BE ABLE TO TACT HIS OWN TACTING BEHAVIOR. (“I ENJOY TALKING ABOUT THE SKY AND ITS MANY HUES”)

THESE TWO REPERTOIRES FIND A PARALLEL TO HIS VIEW OF SELF CONTROL, WHICH ALSO INVOLVES TWO REPERTOIRES OF BEHAVIOR: CONTROLLED RESPONSES AND CONTROLLING RESPONSES. SEE *SCIENCE AND HUMAN BEHAVIOR*.

2. FIRST UP IS THE DESCRIPTIVE AUTOCLITIC. THE DEFINITION IS ON PAGE 315. BE ABLE TO DEFINE THIS IMPORTANT TERM. ALSO, WHAT IS A DESCRIPTIVE AUTOCLITIC?
3. IN DESCRIPTIVE AUTOCLITICS, PERSON EMITS SOME KIND OF VERBAL BEHAVIOR, AND THEN IS ABLE TO REACT TO THAT VERBAL BEHAVIOR IN IMPORTANT WAYS. IN ONE CASE, HE/SHE MAY MERELY DESCRIBE THE FACT THAT THE VERBAL BEHAVIOR WAS, OR WILL BE, EMITTED. GIVE AN EXAMPLE. IN ANOTHER, WE MAY DESCRIBE CONTROLLING RELATIONS. GIVE AN EXAMPLE OF THIS.
4. SKINNER MAKES AN IMPORTANT POINT ABOUT “KNOWING” THAT WE “KNOW” SOMETHING. WHAT IS THE CRUCIAL ELEMENT NECESSARY?





10. A THIRD KIND OF AUTOCLITIC IS THE QUALIFYING AUTOCLITIC. COME UP WITH A WORKING DEFINITION OF THIS KIND. ONE TYPE IS NEGATION. GIVE AN EXAMPLE.
11. SKINNER TALKS OF THREE KINDS OF STATEMENTS IN AN EFFORT TO DISTINGUISH BETWEEN AUTOCLITICS AND NONAUTOCLITICS. TAKE THE EXAMPLE OF A) JONES IS ILL B) JONES IS NOT WELL AND C) "JONES IS WELL" IS FALSE. PUT INTO YOUR OWN WORDS WHY B) IS THE ONLY AUTOCLITIC.
12. ANOTHER EXAMPLE OF A QUALIFYING AUTOCLITIC IS ASSERTION. GIVE AN EXAMPLE.
13. NOTE: CHECK THE LAST PARAGRAPH ON PAGE 326. HERE SKINNER EXPLAINS WHY ASSERTIONS ARE AUTOCLITICS IN THAT THEY MODIFY THE EFFECTS OF ACCOMPANYING STATEMENTS. FOR EXAMPLE, TAKE THE TACT "RAINING." WITHOUT ANY OTHER STATEMENTS, THE LISTENER MAY ACCEPT THIS AS TRUE AND ACT ACCORDINGLY. HOWEVER, LET US SAY THAT PRIOR TO THE TACT, ANOTHER PERSON SAID "I DON'T THINK IT IS RAINING." THUS, THE LISTENER MAY BE PREDISPOSED TO ACT AS IF IT WERE NOT RAINING. THEREFORE, THE SPEAKER NEEDS A WAY TO MAKE THE TACT "RAINING" MORE EFFECTIVE, AND MAY ADD THE ASSERTION "IT IS" TO THE TACT "RAINING" TO PRODUCE "IT IS RAINING."

14. NOW READ THE BOTTOM OF PAGE 327. SKINNER TALKS ABOUT THE USAGE OF THE TERM “WOLF.” HIS EXPLANATION IS A KIND OF TOUR DE FORCE OF THE ENTIRE BOOK. IN ESSENCE, IF A SPEAKER SAYS “WOLF”, WE DO NOT KNOW WHAT HE “MEANS” UNLESS WE KNOW THE VARIABLES RESPONSIBLE FOR ITS EMISSION. HOW CAN AUTOCLITICS CHANGE THIS?
15. INTERESTINGLY, ASSERTIVE AUTOCLITICS MAY INDICATE THE DEGREE OF EXTENSION OF A TACT. GIVE AN EXAMPLE.
16. LASTLY, SKINNER TALKS ABOUT QUANTIFYING AUTOCLITICS. GIVE AN EXAMPLE OF ONE AND EXPLAIN WHY IT IS AN AUTOCLITIC. WHY ARE “THE” AND “A” ALSO QUANTIFYING AUTOCLITICS?
17. NOTE: SKINNER ALSO MAKES A COUPLE FINAL POINTS THAT BEAR REPEATING. FIRST, QUANTIFYING AUTOCLITICS MAY BECOME FUNCTIONAL UNITS (A PIECE OF CANDY) AND ARE THEREFORE NOT AUTOCLITIC. SECOND, AUTOCLITICS MAY BE ADDED TO ANOTHER SPEAKER’S RESPONSES. FOR EXAMPLE, YOU MAY SAY “THAT IS VERY TRUE” WHEN SOMEONE SAYS “DOGS ARE SO MUCH FUN!”



*CHAPTER TWELVE. ANSWERS.*

1. **NOTE: IN THE FIRST COUPLE OF PARAGRAPHS, SKINNER REVIEWS HIS OBJECTION TO “INNER CAUSES.” ON THE BOTTOM OF 312, AND TOP OF 313, HE REFERS TO “TWO SYSTEMS OF RESPONSES, ONE BASED UPON THE OTHER.” IN THIS, A SPEAKER MAY, FOR EXAMPLE, EMIT A TACT THAT DESCRIBES A BLUE SKY (“WHAT A DEEP BLUE SKY”); MOREOVER, THE SPEAKER MAY BE ABLE TO TACT HIS OWN TACTING BEHAVIOR. (“I ENJOY TALKING ABOUT THE SKY AND ITS MANY HUES”)**

THESE TWO REPERTOIRES FIND A PARALLEL TO HIS VIEW OF SELF CONTROL, WHICH ALSO INVOLVES TWO REPERTOIRES OF BEHAVIOR: CONTROLLED RESPONSES AND CONTROLLING RESPONSES. SEE *SCIENCE AND HUMAN BEHAVIOR*.

2. **FIRST UP IS THE DESCRIPTIVE AUTOCLITIC. THE DEFINITION IS ON PAGE 315. BE ABLE TO DEFINE THIS IMPORTANT TERM. ALSO, WHAT IS A DESCRIPTIVE AUTOCLITIC?**

Autoclitic: Verbal behavior that depends on, or is controlled by, other verbal behavior.

Descriptive autoclitic: Tacts of one’s own verbal behavior that are effective on the same listener at the same time. It is important to note that the tacts are emitted specifically to modify the listener’s behavior.

3. **IN DESCRIPTIVE AUTOCLITICS, PERSON EMITS SOME KIND OF VERBAL BEHAVIOR, AND THEN IS ABLE TO REACT TO THAT VERBAL BEHAVIOR IN IMPORTANT WAYS. IN ONE CASE, HE/SHE MAY MERELY DESCRIBE THE FACT THAT THE VERBAL BEHAVIOR WAS, OR WILL BE, EMITTED. GIVE AN EXAMPLE. IN ANOTHER, WE MAY DESCRIBE CONTROLLING RELATIONS. GIVE AN EXAMPLE OF THIS.**

E.g.: “I will tell you about my day in a few minutes.” Or “I just told you what the answer is!”

E.g.: After explaining about an upcoming event, a speaker may say “I read about this in the paper”. Thus, he is identifying the controlling stimuli as textual in nature.

4. **SKINNER MAKES AN IMPORTANT POINT ABOUT “KNOWING” THAT WE “KNOW” SOMETHING. WHAT IS THE CRUCIAL ELEMENT NECESSARY?**

A social environment. Our behavior becomes important to us only when it is important to others.

**5. ON PAGE 315, SKINNER BEGINS TO ENUMERATE THE KINDS OF DESCRIPTIVE AUTOCLITICS. DESCRIBE SOME OF THESE.**

- A) Informs listener of the kind of Verbal behavior it accompanies. “I see it is going to rain” while reading the paper tells the listener that the behavior is textual. Mands are prefaced with “I ask you...”, tacts by “I will tell you...”, and intraverbals as “I hear that...”.
- B) Autoclitics may describe the state of strength. “I imagine” “I guess” “I am sure” “I insist that”
- C) Autoclitics that relate the upcoming response to some current state of affairs: “I agree” “I predict that” “I mildly disagree in that”
- D) Autoclitics that tact emotional or motivational conditions: “I am happy to say” “I regret to inform you”
- E) The accompanying response will serve several functions: (page 318)
  - 1. Upcoming mand “I say old chap”
  - 2. It is agreed to by many others “Others have said” “It has been said”

**6. NOTE: THE DISCUSSION ON THE BOTTOM OF PAGE 316 AND TOP OF PAGE 317 UNDERSCORES AN IMPORTANT POINT ABOUT AUTOCLITICS. THAT IS, THEY MODIFY THE EFFECT OF THE VERBAL BEHAVIOR ON THE LISTENER’S BEHAVIOR. SEE THE TOP OF 319 FOR THE SAME POINT.**

**7. WHAT ARE NEGATIVE AUTOCLITICS?**

They qualify or cancel the effect of the accompanying response, but imply that the response is strong. “I disagree that the food is a positive reinforcer.”

**8. NEGATIVE AUTOCLITICS ALSO ALLOWS THE SPEAKER TO AVOID PUNISHMENT. GIVE AN EXAMPLE.**

E.g.: “You wouldn’t have a match, would you?”

**9. ANOTHER KIND OF AUTOCLITIC IS A MAND UPON THE LISTENER. GIVE AN EXAMPLE OF THIS.**

Know, then... preceding a tact.

- 10. A THIRD KIND OF AUTOCLITIC IS THE QUALIFYING AUTOCLITIC. COME UP WITH A WORKING DEFINITION OF THIS KIND. ONE TYPE IS NEGATION. GIVE AN EXAMPLE.**

Qualifying autoclitic: A kind of autoclitic that changes the direction or intensity of a listener's behavior.

Negation: It is not raining. This clearly changes the valence of the tact "It is raining."

- 11. SKINNER TALKS OF THREE KINDS OF STATEMENTS IN AN EFFORT TO DISTINGUISH BETWEEN AUTOCLITICS AND NONAUTOCLITICS. TAKE THE EXAMPLE OF A) JONES IS ILL B) JONES IS NOT WELL AND C) "JONES IS WELL" IS FALSE. PUT INTO YOUR OWN WORDS WHY B) IS THE ONLY AUTOCLITIC.**

A) Jones is ill: This is merely a tact.

B) Jones is not well. The "not" has an autoclitic function. Skinner assumes that there is a tendency to say "Jones is well" (someone may have said it), and therefore, the "not" is designed to modify the listener's reaction to Jones and to the statement "Jones is...well"

C) "Jones is well" is false: This statement has no autoclitic function, as the speaker is merely tacting the truthfulness of "Jones is well."

- 12. ANOTHER EXAMPLE OF A QUALIFYING AUTOCLITIC IS ASSERTION. GIVE AN EXAMPLE.**

In contrast to "No", which cancels the effects of a statement ("Vote for Smith? No!"), "Yes" supports the effects ("Vote for Smith? Yes!").

- 13. NOTE: CHECK THE LAST PARAGRAPH ON PAGE 326. HERE SKINNER EXPLAINS WHY ASSERTIONS ARE AUTOCLITICS IN THAT THEY MODIFY THE EFFECTS OF ACCOMPANYING STATEMENTS. FOR EXAMPLE, TAKE THE TACT "RAINING." WITHOUT ANY OTHER STATEMENTS, THE LISTENER MAY ACCEPT THIS AS TRUE AND ACT ACCORDINGLY. HOWEVER, LET US SAY THAT PRIOR TO THE TACT, ANOTHER PERSON SAID "I DON'T THINK IT IS RAINING." THUS, THE LISTENER MAY BE PREDISPOSED TO ACT AS IF IT WERE NOT RAINING. THEREFORE, THE SPEAKER NEEDS A WAY TO MAKE THE TACT "RAINING" MORE EFFECTIVE, AND MAY ADD THE ASSERTION "IT IS" TO THE TACT "RAINING" TO PRODUCE "IT IS RAINING."**



14. NOW READ THE BOTTOM OF PAGE 327. SKINNER TALKS ABOUT THE USAGE OF THE TERM “WOLF.” HIS EXPLANATION IS A KIND OF TOUR DE FORCE OF THE ENTIRE BOOK. IN ESSENCE, IF A SPEAKER SAYS “WOLF”, WE DO NOT KNOW WHAT HE “MEANS” UNLESS WE KNOW THE VARIABLES RESPONSIBLE FOR ITS EMISSION. HOW CAN AUTOCLITICS CHANGE THIS?

Autoclitics could indicate a variety of things, such as sources of strength, degree of strength, and whether it is a tact or not.

15. INTERESTINGLY, ASSERTIVE AUTOCLITICS MAY INDICATE THE DEGREE OF EXTENSION OF A TACT. GIVE AN EXAMPLE.

“It is kind of like a wolf.” Or “It is very close to a wolf.” Or “It really does not look too much like a wolf.”

16. LASTLY, SKINNER TALKS ABOUT QUANTIFYING AUTOCLITICS. GIVE AN EXAMPLE OF ONE AND EXPLAIN WHY IT IS AN AUTOCLITIC. WHY ARE “THE” AND “A” ALSO QUANTIFYING AUTOCLITICS?

“All dogs have four legs.” The quantifier “All” modifies the listener’s reaction to “dogs have four legs.”

The tact “dog” has different effects on a listener when accompanied by “the” or “a”. They indicate the evocative relation between the tact and stimulus.

17. SKINNER ALSO MAKES A COUPLE FINAL POINTS THAT BEAR REPEATING. FIRST, QUANTIFYING AUTOCLITICS MAY BECOME FUNCTIONAL UNITS (A PIECE OF CANDY) AND ARE THEREFORE NOT AUTOCLITIC. SECOND, AUTOCLITICS MAY BE ADDED TO ANOTHER SPEAKER’S RESPONSES. FOR EXAMPLE, YOU MAY SAY “THAT IS VERY TRUE” WHEN SOMEONE SAYS “DOGS ARE SO MUCH FUN!”



## CHAPTER 13

### *GRAMMAR AND SYNTAX AS AUTOCLITIC PROCESSES*

1. **NOTE: AT THE TOP OF PAGE 332, SKINNER SUMMARIZES THE EFFECTS OF AUTOCLITICS. MAKE SURE THAT YOU CAN PROVIDE EXAMPLES OF EACH. HE ALSO MAKES THE CASE THAT GROUPING AN ORDERING OF RESPONSES CAN BE AUTOCLITIC.**
  
2. **FIRST, SKINNER PRESENTS OTHER FUNCTIONS OF ORDERING OF RESPONSES. WHAT ARE SOME OF THESE?**
  
3. **WHAT IS A RELATIONAL AUTOCLITIC?**
  
4. **WHAT IS PREDICATION? GIVE AN EXAMPLE.**
  
5. **NOTE: IN “RELATIONAL AUTOCLITIC BEHAVIOR”, SKINNER OPINES THAT WE SHOULD NOT QUICKLY ASSUME THAT AUTOCLITIC FORMS OF RESPONSES ARE ALWAYS AUTOCLITIC IN NATURE. INDEED, SOME FORMS MAY BECOME FUNCTIONAL UNITS AND THEREFORE LOSE THEIR AUTOCLITIC EFFECTS.**

6. WHAT IS AN AUTOCLITIC “FRAME?”
  
  
  
  
  
  
  
  
  
  
7. NOTE:SKINNER NOTES THAT IN OUR LANGUAGE, THERE ARE REFERENCES TO OBJECTS AND REFERENCES TO ACTIONS. TAGS ARE ATTACHED TO INDICATE WHICH IS WHICH. MOREOVER, THE CONVENTIONS IN A PARTICULAR LANGUAGE WILL DICTATE SOME ASPECTS OF THE FORM (SEE DISCUSSION OF ENGLISH VS AMERICANIZED ENGLISH).
  
  
  
  
  
  
  
  
  
  
8. THE FINAL KIND OF AUTOCLITIC IS THE MANIPULATIVE AUTOCLITIC. GIVE AN EXAMPLE OR TWO OF THESE.
  
  
  
  
  
  
  
  
  
  
9. NOTE: IN THE LAST PARAGRAPH ON PAGE 343, SKINNER REVISITS A PREVIOUS POINT. THAT IS, AUTOCLITIC FORMS MAY BECOME STANDARD UNITS AND THEREFORE LOSE THEIR AUTOCLITIC EFFECTS. HE POINTS OUT THAT TRUE AUTOCLITICS OCCUR IN GENUINELY NOVEL SITUATIONS AND INVOLVE MANDS TO THE LISTENER TO MODIFY HIS BEHAVIOR WITH RESPECT TO THE REMAINDER OF THE STATEMENT.



*CHAPTER THIRTEEN. ANSWERS.*

1. **NOTE: AT THE TOP OF PAGE 332, SKINNER SUMMARIZES THE EFFECTS OF AUTOCLITICS. MAKE SURE THAT YOU CAN PROVIDE EXAMPLES OF EACH. HE ALSO MAKES THE CASE THAT GROUPING AN ORDERING OF RESPONSES CAN BE AUTOCLITIC.**
  
2. **FIRST, SKINNER PRESENTS OTHER FUNCTIONS OF ORDERING OF RESPONSES. WHAT ARE SOME OF THESE?**

- A) Speech sounds are ordered depending on the word used.
- B) Responses may be ordered to correspond to the order of stimuli or intraverbal stimuli

3. **WHAT IS A RELATIONAL AUTOCLITIC?**

Relational autoclitics indicate:

- A) Agreement between subject and predicate (“The girl types” or the “The girls type”)
- B) Possession (“The girl’s doll” or “The girls’ doll”)

4. **WHAT IS PREDICATION? GIVE AN EXAMPLE.**

It is a relational autoclitic with the addition of an autoclitic of assertion. For example, one may say “Chocolate” and “Good to a piece of candy. “Good chocolate” is therefore a tact under the control of two properties. It becomes predication when uttered “The chocolate is good” because there is a grouping of words, and the use of “is” as an assertion.

5. **NOTE: IN “RELATIONAL AUTOCLITIC BEHAVIOR”, SKINNER OPINES THAT WE SHOULD NOT QUICKLY ASSUME THAT AUTOCLITIC FORMS OF RESPONSES ARE ALWAYS AUTOCLITIC IN NATURE. INDEED, SOME FORMS MAY BECOME FUNCTIONAL UNITS AND THEREFORE LOSE THEIR AUTOCLITIC EFFECTS.**



**6. WHAT IS AN AUTOCLITIC “FRAME?”**

An autoclitic frame is a functional unit that can be combined with other responses. For example, a person may learn to respond to pairs of objects with “the \_\_\_ and the \_\_\_” which can be emitted in the presence of untrained objects. It is an example of multiple causation, as the relational features of the situation strengthen the frame, and the specific stimuli evoke the specific responses inserted into it.

**7. NOTE: SKINNER NOTES THAT IN OUR LANGUAGE, THERE ARE REFERENCES TO OBJECTS AND REFERENCES TO ACTIONS. TAGS ARE ATTACHED TO INDICATE WHICH IS WHICH. MOREOVER, THE CONVENTIONS IN A PARTICULAR LANGUAGE WILL DICTATE SOME ASPECTS OF THE FORM (SEE DISCUSSION OF ENGLISH VS AMERICANIZED ENGLISH).**

**8. THE FINAL KIND OF AUTOCLITIC IS THE MANIPULATIVE AUTOCLITIC. GIVE AN EXAMPLE OR TWO OF THESE.**

The manipulative autoclitic involves the use of, for example, conjunctions such as “and” or “but.” “But” tells the listener to exclude something, and “and” tells the listener to add something.

**9. NOTE: IN THE LAST PARAGRAPH ON PAGE 343, SKINNER REVISITS A PREVIOUS POINT. THAT IS, AUTOCLITIC FORMS MAY BECOME STANDARD UNITS AND THEREFORE LOSE THEIR AUTOCLITIC EFFECTS. HE POINTS OUT THAT TRUE AUTOCLITICS OCCUR IN GENUINELY NOVEL SITUATIONS AND INVOLVE DEMANDS TO THE LISTENER TO MODIFY HIS BEHAVIOR WITH RESPECT TO THE REMAINDER OF THE STATEMENT.**



CHAPTER 14  
*COMPOSITION AND ITS EFFECTS*

1. IN THE FIRST FEW PARAGRAPHS, SKINNER IS REVIEWING SOME POINTS ABOUT AUTOCLITICS. ONE IMPORTANT POINT IS THAT THE AUTOCLITIC MODULATES, IN SOME WAY, THE EFFECTS OF OTHER VERBAL OPERANTS. HE TACKLES THAT PROBLEM OF SENTENCES. HE TALKS ABOUT THE SENTENCE "THE MAN IS HUNGRY." WHAT AUTOCLITICS ARE INVOLVED?
  
2. DOES THE PROCESS DESCRIBED IN #1 ALWAYS OCCUR? WHY ELSE MIGHT WE USE COMPLETE SENTENCES?
  
3. NOTE: IN THE NEXT PARAGRAPH, SKINNER TALKS ABOUT COMPOSITION AND WHAT IT IS NOT. FIRST UP IS HIS WAY OF DEFINING COMPOSITION. HERE HE TALKS ABOUT COMPLEX SITUATIONS THAT CAN NOT EVOKE STANDARD RESPONSE OR FRAMES WITH ADDED ELEMENTS. WHEN WE THEN CREATE LARGE STATEMENTS AND USE SPECIAL AUTOCLITICS, THIS IS ESSENTIALLY COMPOSITION. HE THEN TALKS OF "MEMORIZED" SENTENCES THAT ARE MERELY INTRAVERBALS, TEXTUALS, OR ECHOICS. THESE ARE NOT COMPOSITION. COMPOSITION THEREFORE SEEMS TO BE VERBAL BEHAVIOR THAT IS NOT A STANDARD FORM TO A PARTICULAR SITUATION, BUT A UNIQUE COMBINATION OF UNITS THAT IS COMBINED WITH AUTOCLITICS TO HAVE THE DESIRED EFFECT.
  
4. NOTE: THE REST OF THE MATERIAL IN THIS SECTION DISCUSSES THE VARIETY OF SENTENCES THAT MAY BE EMITTED TO A GIVEN STATE OF AFFAIRS. NOTE THE RANGE OF AUTOCLITICS THAT ARE USED, AND HOW THEY MAY BE USED TO HAVE SLIGHTLY DIFFERENT EFFECTS ON THE LISTENER.

5. IN THE FOLLOWING SECTION, “ANALYSIS OF SEGMENTS OF VERBAL BEHAVIOR”, SKINNER TALKS TO 3 ELEMENTS OF SUCH AN ANALYSIS. WHAT ARE THEY?

6. THE PASSAGES THAT SKINNER USES ARE LONG AND COMPLEX. LET’S TAKE A SIMPLER PASSAGE TO ANALYZE, SUCH AS THE FOLLOWING:

The boys are really, really good baseball players, have a swimmingly good time at it, and hit a home run in the classroom!

7. IN THE SECTION “LARGER ARTICULATIONS”, SKINNER MAKES A COUPLE OF POINTS. FIRST, THERE ARE “MANIPULATIVE AUTOCLITICS” THAT CONNECT REMOTE SEGMENTS, SIGNAL DIGRESSIONS, OR RE-PRESENT A WORD TO LINK IT WITH WHAT IS UPCOMING: INCIDENTALLY, MOREOVER, HOWEVER, PARENTHETICALLY, ETC. SKINNER ALSO TALKS ABOUT INTERESTING AND UNUSUAL ORDERS OF WORDS. UNDER WHAT KIND OF SITUATIONS DO THEY OCCUR? WHY?

8. SKINNER TALKS ABOUT THE PERIODIC TABLE AS AN AUTOCLITIC ARRANGEMENT THAT HAS A MUCH BETTER, AND MORE PRECISE, EFFECT ON THE READER. HOW SO?



14. IN THE NEXT SECTION, SKINNER DISCUSSES ANOTHER FUNCTION-ALTERING OPERATION. HERE, A STATEMENT CHANGES THE FUNCTION OF A STIMULUS SUCH THAT IT EVOKES OPERANT BEHAVIOR. THUS, THE STIMULUS IS “SD-LIKE”. GIVE AN EXAMPLE.
15. AT THE BOTTOM OF 359, SKINNER MENTIONS THE “AUTOCLITIC FRAME”. WHAT IS THIS?
16. HOW CAN TACTS BE ACQUIRED (AS DESCRIBED ON THE BOTTOM OF 359—TOP 360)? WHAT KIND OF HISTORY MAY BE REQUIRED FOR SUCH AN EFFECT?
17. NOTE THE FUNCTION-ALTERING EFFECTS DESCRIBED IN THE LAST PARAGRAPH ON PAGE 360.
18. ON THE BOTTOM OF PAGE 361, SKINNER PRESENTS A DISCUSSION OF TRANSFERRING THE EFFECTS OF ONE EVENT (OR WORD) TO ANOTHER EVENT (OR WORD). CHECK OUT THE EXAMPLE OF THE LIGHT ON AND DOOR UNLOCKED. WHAT IS THIS ABOUT?

19. ON PAGE 362, EXPLAIN THE DIFFERENCE IN EFFECTS BETWEEN THE AUTOCLITIC EFFECTS OF "IS" AND WHAT HAPPENS IF THE STATEMENT IS A FUNCTIONAL UNIT.

20. WHAT IS "INSTRUCTION?"

21. SKINNER POINTS OUT THAT "FACTS" ARE NOT TRANSMITTED IN INSTRUCTION. WHAT, THEN, IS MADE "COMMON?"

22. NOTE: ON PAGE 365 (TOP), SKINNER RETURNS TO THE POINT ABOUT SOME STATEMENTS ARE MERELY SIMPLE SDs OR SΔs, WHILE OTHERS SHOW A FUNCTION-ALTERING EFFECT.

23. WHAT ARE SOME CONDITIONS THAT AFFECT THE CHANGES IN A LISTENER'S BEHAVIOR?



*CHAPTER FOURTEEN. ANSWERS.*

1. **IN THE FIRST FEW PARAGRAPHS, SKINNER IS REVIEWING SOME POINTS ABOUT AUTOCLITICS. ONE IMPORTANT POINT IS THAT THE AUTOCLITIC MODULATES, IN SOME WAY, THE EFFECTS OF OTHER VERBAL OPERANTS. HE TACKLES THAT PROBLEM OF SENTENCES. HE TALKS ABOUT THE SENTENCE "THE MAN IS HUNGRY." WHAT AUTOCLITICS ARE INVOLVED?**

"Man" and "hungry" are in strength, and the assertive autoclitic "is" and then the designative autoclitic "the" is also added to refer a particular man. The complete sentence is therefore more effective on the listener's behavior than "Man hungry."

2. **DOES THE PROCESS DESCRIBED IN #1 ALWAYS OCCUR? WHY ELSE MIGHT WE USE COMPLETE SENTENCES?**

No. Some sentences are standard responses to particular situations. Others are "frames" that are combined with certain other phrases. For example, we may learn "The \_\_\_\_ is \_\_\_\_" and fill in with nouns and adjectives to form "The bird is grey."

We may use complete sentences when the verbal community punishes fragments.

3. **NOTE: IN THE NEXT PARAGRAPH, SKINNER TALKS ABOUT COMPOSITION AND WHAT IT IS NOT. FIRST UP IS HIS WAY OF DEFINING COMPOSITION. HERE HE TALKS ABOUT COMPLEX SITUATIONS THAT CAN NOT EVOKE STANDARD RESPONSE OR FRAMES WITH ADDED ELEMENTS. WHEN WE THEN CREATE LARGE STATEMENTS AND USE SPECIAL AUTOCLITICS, THIS IS ESSENTIALLY COMPOSITION. HE THEN TALKS OF "MEMORIZED" SENTENCES THAT ARE MERELY INTRAVERBALS, TEXTUALS, OR ECHOICS. THESE ARE NOT COMPOSITION. COMPOSITION THEREFORE SEEMS TO BE VERBAL BEHAVIOR THAT IS NOT A STANDARD FORM TO A PARTICULAR SITUATION, BUT A UNIQUE COMBINATION OF UNITS THAT IS COMBINED WITH AUTOCLITICS TO HAVE THE DESIRED EFFECT.**
4. **NOTE: THE REST OF THE MATERIAL IN THIS SECTION DISCUSSES THE VARIETY OF SENTENCES THAT MAY BE EMITTED TO A GIVEN STATE OF AFFAIRS. NOTE THE RANGE OF AUTOCLITICS THAT ARE USED, AND HOW THEY MAY BE USED TO HAVE SLIGHTLY DIFFERENT EFFECTS ON THE LISTENER.**

5. **IN THE FOLLOWING SECTION, “ANALYSIS OF SEGMENTS OF VERBAL BEHAVIOR”, HE TALKS TO THREE ELEMENTS OF SUCH AN ANALYSIS. WHAT ARE THEY?**

A given utterance may be dissected into:

- A) the essential operants
  - B) intraverbal arising from the essential operants (sometimes forming “thematic” groups)
  - C) autoclitics used to modulate the effects
6. **THE PASSAGES THAT SKINNER USES ARE LONG AND COMPLEX. LET’S TAKE A SIMPLER PASSAGE TO ANALYZE, SUCH AS THE FOLLOWING:**

The boys are really, really good baseball players, have a swimmingly good time at it, and hit a home run in the classroom!

- A) Essential operants: boys, good players, fun, good students
  - B) Intraverbals or thematic groups: baseball, swimming, home run, hit
  - C) Autoclitics: “The” ; “really, really” ; “a” ; “are”
7. **IN THE SECTION “LARGER ARTICULATIONS”, SKINNER MAKES A COUPLE OF POINTS. FIRST, THERE ARE “MANIPULATIVE AUTOCLITICS” THAT CONNECT REMOTE SEGMENTS, SIGNAL DIGRESSIONS, OR RE-PRESENT A WORD TO LINK IT WITH WHAT IS UPCOMING: INCIDENTALLY, MOREOVER, HOWEVER, PARENTHETICALLY, ETC. SKINNER ALSO TALKS ABOUT INTERESTING AND UNUSUAL ORDERS OF WORDS. UNDER WHAT KIND OF SITUATIONS DO THEY OCCUR? WHY?**

They often occur in literature, and do so because of the relaxed contingencies in the literary world.

8. **SKINNER TALKS ABOUT THE PERIODIC TABLE AS AN AUTOCLITIC ARRANGEMENT THAT HAS A MUCH BETTER, AND MORE PRECISE, EFFECT ON THE READER. HOW SO?**

The periodic table presents the elements and their atomic weights. They are organized in such a way that the reader can readily see their respective weights, what the adjacent elements are, and subgroups of elements that are related.

9. IN THE NEXT SECTION, “AUTOCLITICS OF COMPOSITION”, SKINNER TALKS ABOUT HOW SOME AUTOCLITICS CAN AFFECT A READER’S OWN COMPOSITION. GIVE AN EXAMPLE.

A speaker may say “On the other hand” which will prepare the reader/listener for a statement that is contrary to the first statement.

10. NOTE HIS DISCUSSION OF PUNCTUATION. IN WHAT WAY IS IT AUTOCLITIC? NOTE THE VARIETY OF EFFECTS IN SOME OF HIS EXAMPLES.

It can be emitted until other primary verbal behavior is available, and it is used because it modulates the effects of the primary verbal behavior.

11. WHAT MIGHT DETERMINE HOW OFTEN AUTOCLITICS ARE USED?

- A) The kind of verbal community: literary vs. scientific
- B) History of reinforcement and/or punishment: timid people use more of them
- C) Current conditions: time constraints may weaken some autoclitics

12. THE NEXT SECTION ENTITLED “CONDITIONING THE BEHAVIOR OF THE LISTENER” IS ONE OF THE MOST IMPORTANT SECTIONS IN THE BOOK. SKINNER ADDRESSES A VERY IMPORTANT EFFECT OF VERBAL BEHAVIOR; SPECIFICALLY, THAT IT ALTERS THE LISTENER’S BEHAVIOR IN IMPORTANT WAYS. FIRST UP IS HIS ANALYSIS OF VERBAL BEHAVIOR AND HOW IT CAN PRODUCE EFFECTS SIMILAR TO THOSE ENGENDERED BY RESPONDENT CONDITIONING. EXPLAIN THE EXAMPLE OF THE SHOCK.

The statement “When I say ‘three’, you will receive a shock” changes the evocative status of ‘three’ such that it will evoke responses similar to those evoked by the shock and the word “shock.”

NOTE: Hank Schlinger and I coined the term “function-altering” for this effect. Thus, the statement (or rule) changes the function of the word “three” in that it now evokes reactions similar to those produced by the shock. In this way, the rule mimics respondent conditioning by creating a CS.

**13. READ JOYCE'S PASSAGE ABOUT "ETERNITY." WHAT IS HE TRYING TO ACCOMPLISH THEREIN?**

He is pairing "eternity" with descriptions of huge numbers of things or periods of time, such that the word will evoke reactions similar to those descriptions.

NOTE: The passage is a function-altering set of stimuli. It alters the function of the word "eternity."

**14. IN THE NEXT SECTION, SKINNER DISCUSSES ANOTHER FUNCTION-ALTERING OPERATION. HERE, A STATEMENT CHANGES THE FUNCTION OF A STIMULUS SUCH THAT IT EVOKES OPERANT BEHAVIOR. THUS, THE STIMULUS IS "SD-LIKE". GIVE AN EXAMPLE.**

When the queen arrives, make sure you stand up!

NOTE: function-altering effects are not always seen immediately. They are observed only when the stimulus in question actually occurs. Thus, in the above example, the FA effect will be observed upon the queen's arrival, which could be much later.

**15. AT THE BOTTOM OF 359, SKINNER MENTIONS THE "AUTOCLITIC FRAME". WHAT IS THIS?**

An autoclitic frame is an "If.....,say...." Or "If....., then...." Statement that can allow substitutions depending on other variables in a situation. In previous writings, Skinner discussed situations in which variables combine and evoke various words, and these combine to form more lengthy statements. This is probably one of those examples.

**16. HOW CAN TACTS BE ACQUIRED (AS DESCRIBED ON THE BOTTOM OF 359—TOP 360)? WHAT KIND OF HISTORY MAY BE REQUIRED FOR SUCH AN EFFECT?**

We may hear something named, such as "apple" (e.g., "This is an apple"). Then, we may be able to tact the object when asked "What is that?" Note that the statement involves an autoclitic of assertion (is).

Necessary history: Skinner suggests that an echoic repertoire is required, as well as some sort of history with frames such as "This is \_\_\_\_\_".

**17. NOTE THE FUNCTION-ALTERING EFFECTS DESCRIBED IN THE LAST PARAGRAPH ON PAGE 360.**

- 18. ON THE BOTTOM OF PAGE 361, SKINNER PRESENTS A DISCUSSION OF TRANSFERRING THE EFFECTS OF ONE EVENT (OR WORD) TO ANOTHER EVENT (OR WORD). CHECK OUT THE EXAMPLE OF THE LIGHT ON AND DOOR UNLOCKED. WHAT IS THIS ABOUT?**

The statement “When the light is on, the door will be unlocked” has the following effect on the listener: behavior evoked by the door being unlocked will then be evoked by the light coming on. A similar effect is produced by “The telephone is out of order.” Behavior evoked by “out of order” will now be evoked by the sight of the telephone. Evoked behavior may be verbal or nonverbal.

- 19. ON PAGE 362, EXPLAIN THE DIFFERENCE IN EFFECTS BETWEEN THE AUTOCLITIC EFFECTS OF “IS” AND WHAT HAPPENS IF THE STATEMENT IS A FUNCTIONAL UNIT.**

In the statement “The telephone is out of order”, there may be a function-altering effect as described above. However, if the listener has a history with the statement as a unit, then there is no function-altering effect; instead, it will merely function as an S-delta for approaches to and attempts to use the telephone.

- 20. WHAT IS “INSTRUCTION?”**

Instruction is bringing a student’s behavior (usually verbal behavior) under evocative control of various intraverbal stimuli. In the hard sciences, the student’s behavior may be more nonverbal. Nonetheless, instruction involves function-altering experiences and both verbal and nonverbal behavior may come under the control of various stimuli.

- 21. SKINNER POINTS OUT THAT “FACTS” ARE NOT TRANSMITTED IN INSTRUCTION. WHAT, THEN, IS MADE “COMMON?”**

What happens is that behavior that the speaker possesses is now in the listener’s repertoire.

- 22. NOTE: ON PAGE 365 (TOP), SKINNER RETURNS TO THE POINT ABOUT SOME STATEMENTS ARE MERELY SIMPLE SDs OR SΔs, WHILE OTHERS SHOW A FUNCTION-ALTERING EFFECT.**

**23. WHAT ARE SOME CONDITIONS THAT AFFECT THE CHANGES IN A LISTENER'S BEHAVIOR?**

- A) Prestige of speaker (and history of reinforcement of reacting to similar speakers)
- B) Extent of change required by instruction
- C) Time available: complex material must be presented slowly
- D) Clarity of the stimuli
- E) Familiarity of stimuli





CHAPTER 15  
*SELF EDITING*



6. NOTE: SKINNER MAKES A DISTINCTION BETWEEN BEHAVIOR THAT EMERGES BECAUSE OF THE INTERACTION OF POSITIVE REINFORCEMENT AND PUNISHMENT, AS A SORT OF “ALGEBRAIC SUMMATION”, AND BEHAVIOR THAT EMERGES AS A RESULT OF EDITING, WHICH INVOLVES SOME KIND OF REVIEW PROCESS. THE NEXT SECTION EXAMINES THIS PROCESS.
  
  
  
  
  
  
  
  
  
  
7. GIVE AN EXAMPLE OF A QUALIFYING AUTOCLITIC IN THE EDITING PROCESS.
  
  
  
  
  
  
  
  
  
  
8. NOTE THE TWO-FACTOR VIEW OF PUNISHMENT ON PAGE 379. WHAT IS THE POINT HEREIN?
  
  
  
  
  
  
  
  
  
  
9. IN WHAT WAY CAN “DOING NOTHING” OR “SAYING NOTHING” BE MAINTAINED?
  
  
  
  
  
  
  
  
  
  
10. SKINNER POINTS TO A BENEFICIAL EFFECT OF PUNISHMENT ON VERBAL BEHAVIOR IN THE TOP OF 380. EXPLAIN. IS THERE A DISADVANTAGE?

**11. WHAT IS THIS “RELEASING” ACTIVITY THAT SKINNER TALKS ABOUT?**

**12. DESCRIBE SKINNER’S VIEW OF THE EDITING PROCESS.**

**13. TALK ABOUT THE ECSTATIC AND EUPLASTIC PHASES OF COMPOSITION.**

*CHAPTER FIFTEEN. ANSWERS.*

**1. HOW IS WRITTEN BEHAVIOR EDITED? WHAT ABOUT VOCAL BEHAVIOR?**

Written: the writer may read over the passage, and make changes, before delivering it to a reader.

Speaker: a) Not emitting it b) Not repeating the response upon request c) The response may be “taken back” after saying it (e.g., “I meant to say...” or “I did not mean that the way it sounded...”) d) The speaker may emit the response subvocally to test it out on him/herself. E) “On the fly” - autoclitics and composition may be done as the responses are emitted, even without subvocal review.

**2. WHY ARE VERBAL RESPONSES REJECTED?**

The response has been punished.

NOTE: Skinner uses his two-factor theory of punishment in this section. Make sure that you can articulate this view as it applies to this section. Thus, rejecting a response reduces conditioned aversive stimuli that are generated by the punished response, or some incipient form of it.

**3. ON PAGES 372 AND 373, CHECK OUT THE DISCUSSION ABOUT THE PIGEON AND THE USE OF PUNISHMENT. WHAT IS GOING ON HERE?**

Pigeons are conditioned to peck “Red” upon seeing red, “Yellow” upon seeing yellow, etc. Performance can be improved by using punishment for wrong responses. In this case, he used timeout. The effect on the pigeon’s behavior is to increase observing behavior, which in this case is looking at the color before selecting the word. The bird may also hesitate before selecting the word.

Note that the schedule of reinforcement is a VR 4, and it sounds like the food was not contingent on color. If this means both corrects and incorrects were reinforced, it is no surprise that the birds had trouble. If it means that only corrects were reinforced, then the extra punishment contingency is interesting.

**4. LOOK AT THE NEXT SECTION, AND EXPLAIN WHY VERBAL BEHAVIOR MIGHT BE PUNISHED.**

A) May be aversive to the listener, as noise! May generate covert Verbal behavior as a result.

B) Certain features of the Verbal behavior may be aversive (e.g., volume, tone).

- C) Deficient stimulus control: any one of a variety of variables may lead to the “wrong word” being used. Also, lying, hyperbole, etc. may be punished.
- D) Poor audience control: Verbal behavior may be aversive to a particular audience. (e.g., bawdy jokes at a church gathering)
- E) It may be a “tit for tat” situation if the listener’s behavior is being punished. For example, the speaker may be trying to hurt the feelings of the listener, and the listener may provide punishing consequences back to the speaker.

NOTE: check out the top of 375. He refers to a situation in which the speaker’s behavior of nagging or criticizing the listener is not aversive to the speaker. Instead, Skinner suggests it is a special case of positive reinforcement appropriate to ...aggression. This may not make sense, but consider that for Skinner, aggression is behavior reinforced by signs of damage to others. Thus, we may be aggressive because it has been followed by a “hurt victim.” The person may cry, cower, or beg for mercy. You will not see this operant class discussed in the literature, but remember this point. You will have cases in which the client’s aggression may indeed belong to this class.

- F) Automatic self-punishing: If the verbal behavior is correlated with other aversive stimuli, and its emission will therefore produce conditioned aversive stimuli, which can be terminated by stopping the verbal behavior, or emitting an autoclitic (“I take it back!”)
- G) When the verbal behavior “gives something away”: as in a joke
- H) When the Verbal behavior exposes the speaker to other aversive stimuli: When confessing a crime, or when the verbal behavior reveals objectionable variables at work (the person who sees and talks about sexual connotations in everyday events).

##### 5. WHAT ARE SOME OUTCOMES OF PUNISHING VERBAL BEHAVIOR?

- A) The speaker may conceal his/her identity.
- B) Verbal behavior may recede to the covert level
- C) The verbal behavior may occur to oneself (in a diary)
- D) Verbal behavior may be disguised in some way (cryptic messages, poems to secret lovers)

6. **NOTE: SKINNER MAKES A DISTINCTION BETWEEN BEHAVIOR THAT EMERGES BECAUSE OF THE INTERACTION OF POSITIVE REINFORCEMENT AND PUNISHMENT, AS A SORT OF “ALGEBRAIC SUMMATION”, AND BEHAVIOR THAT EMERGES AS A RESULT OF EDITING, WHICH INVOLVES SOME KIND OF REVIEW PROCESS. THE NEXT SECTION EXAMINES THIS PROCESS.**

7. **GIVE AN EXAMPLE OF A QUALIFYING AUTOCLITIC IN THE EDITING PROCESS.**

You are in a situation which your boss treats you unfairly. Behavior such as “You jerk!” is strengthened, but its incipient form is too aversive. Thus, you say something like “If you were my brother, I might just throw some water on you and call you a jerk!”

8. **NOTE THE TWO-FACTOR VIEW OF PUNISHMENT ON PAGE 379. WHAT IS THE POINT HEREIN?**

Autoclitic activity occurs not to physically restrain behavior, but it occurs because it reduces the conditioned aversive stimuli generated by incipient Verbal behavior that has been punished. “The behavior is strong because it displaces punishable responses.”

9. **IN WHAT WAY CAN “DOING NOTHING” OR “SAYING NOTHING” BE MAINTAINED?**

It may be negatively reinforced if it displaces punished behavior.

10. **SKINNER POINTS TO A BENEFICIAL EFFECT OF PUNISHMENT ON VERBAL BEHAVIOR IN THE TOP OF 380. EXPLAIN. IS THERE A DISADVANTAGE?**

Punishment of verbal behavior may generate an editing repertoire of behavior that may have many benefits. The speaker will refrain from inane drivel, and will maintain reasonable verbal behavior repertoires that are appropriate to the audience.

The disadvantage is that the speaker may experience phenomena such as mutism, emotional confusion, and low rate verbal behavior in many situations.

11. **WHAT IS THIS “RELEASING” ACTIVITY THAT SKINNER TALKS ABOUT?**

If a subvocal response is emitted, and it generates no conditioned aversive stimuli, then it may be emitted vocally. Moreover, the subvocal form may actually be reinforced at this level, which may be important because the subvocal form may be weak,



poorly conditioned, etc, and this reinforcement may be responsible for its ultimate emission at the vocal level. This process may be operating in “testing for correctness” with a 2nd language. The speaker may reject errors, but correct responses may be reinforced by the speaker/listener, which will contribute to learning the 2nd language.

**12. DESCRIBE SKINNER’S VIEW OF THE EDITING PROCESS.**

- A) Production of raw verbal behavior, according to the principles related to mands, tacts, intraverbals, etc. and those variables involved in multiple causation, supplementary stimulation, blending of responses, etc.
- B) Autoclitic responses may then be strengthened
- C) Editing process in which the speaker acts as his/her own listener. Behavior may be emitted in current form, rejected, or qualified.

**13. TALK ABOUT THE ECSTATIC AND EUPLASTIC PHASES OF COMPOSITION.**

Ecstatic: Unedited raw material with little or no punishment contingencies operating.

Euplastic: Careful review and revision of verbal behavior



CHAPTER 16  
*CONDITIONS OF SELF EDITING*

1. THE CURRENT CHAPTER DISCUSSES SEVERAL ISSUES RELEVANT TO EDITING. THE FIRST ISSUE IS WHY BEHAVIOR IS EMITTED, IN SOME SITUATIONS, UNEDITED IN ITS MOST “RAW” FORM. WHAT ARE SOME REASONS?
  
2. NOTE: THE NEXT SECTION DISCUSSES WHAT OCCURS WHEN SELF EDITING HAS NOT OCCURRED, BUT THE SPEAKER IS CONFRONTED WITH UNDENIABLE EVIDENCE THAT VERBAL BEHAVIOR WAS EMITTED. IN BRIEF, WE MIGHT ATTRIBUTE IT TO ANOTHER PERSON OR TO A SUPERNATURAL POWER. THERE ARE MANY LITERARY REFERENCES AS EXAMPLES.
  
3. GO TO PAGE 393, AND CHECK OUT THE FIRST COMPLETE PARAGRAPH. THIS INVOLVES WHAT IS HAPPENING IN MPD. EXPLAIN HIS REACTION TO MISS BEAUCHAMP’S MPD PROBLEM, AND WHY SHE DOES NOT “KNOW” ABOUT SALLY.
  
4. THE NEXT SECTION DEALS WITH THE VARIOUS KINDS OF AUDIENCES THAT WILL AFFECT THE STRENGTH OF EDITING REPERTOIRES. WHAT ARE SOME OF THESE?
  
5. THE FINAL SECTION, “THE NOTION OF RELEASE”, INVOLVES A REJECTION OF MENTAL PROCESSES (E.G., REPRESSION) AS CAUSES OF VERBAL BEHAVIOR NOT BEING EMITTED OR FINALLY EXHIBITED UNDER CERTAIN CONDITIONS. EXPLAIN THE “PRINCIPAL FACTS” AS SKINNER SEES THEM.
  
6. NOTE: THROUGHOUT THIS AND PREVIOUS SECTIONS, SKINNER REJECTS ACTUAL PROCESSES OF REPRESSION, SUBLIMATION, DISPLACEMENT, AND OTHER FREUDIAN PROCESSES. INSTEAD, HE OFFERS WELL-KNOWN BEHAVIORAL PROCESSES TO EXPLAIN WHAT HAPPENS IN THERAPY.

*CHAPTER SIXTEEN. ANSWERS.*

**1. THE CURRENT CHAPTER DISCUSSES SEVERAL ISSUES RELEVANT TO EDITING. THE FIRST ISSUE IS WHY BEHAVIOR IS EMITTED, IN SOME SITUATIONS, UNEDITED IN ITS MOST “RAW” FORM. WHAT ARE SOME REASONS?**

- A) Defective feedback: the behavior is emitted too quickly; feedback is physically interrupted (deaf, lots of background noise)
- B) Defective self observation: stimuli generated by subvocal behavior is not effective. May result from inadequate training in verbal community.

NOTE: There are several intended and unintended puns on 386. Notice the presence of supplementary stimuli in terms such as “who followed Hume”, “gorilla warfare”, and “martial relationships.”

- C) Defective responses to controlling variables: The action of controlling variables may be obscure (see Verbal Summator), and will therefore not affect the editing repertoire. Two movements have increased awareness of controlling variables: psychoanalysis and literary self-analysis.
- D) Automatic verbal behavior: talking in sleep or under hypnosis. In both, the speaker can not be stimulated by his/her own behavior. Note Skinner’s interest in “automatic writing.” He seems to feel that such writing is well-composed with the appropriate autoclitics, but can be inappropriate or obscene. What is lacking, according to Skinner, is the stimuli that have been correlated with punishment contingencies. Thus, the self editing repertoire is not evoked.
- E) Other variables may weaken editing: illness and drugs.

**2. NOTE: THE NEXT SECTION DISCUSSES WHAT OCCURS WHEN SELF EDITING HAS NOT OCCURRED, BUT THE SPEAKER IS CONFRONTED WITH UNDENIABLE EVIDENCE THAT VERBAL BEHAVIOR WAS EMITTED. IN BRIEF, WE MIGHT ATTRIBUTE IT TO ANOTHER PERSON OR TO A SUPERNATURAL POWER. THERE ARE MANY LITERARY REFERENCES AS EXAMPLES.**

**3. GO TO PAGE 393, AND CHECK OUT THE FIRST COMPLETE PARAGRAPH. THIS INVOLVES WHAT IS HAPPENING IN MPD. EXPLAIN HIS REACTION TO MISS BEAUCHAMP’S MPD PROBLEM, AND WHY SHE DOES NOT “KNOW” ABOUT SALLY.**

In essence, MPD individuals do not “notice” or tact their behavior when emitted under other “personalities” because to do so would evoke conditioned aversive stimuli. Thus, such tacts are effectively punished.

**4. THE NEXT SECTION DEALS WITH THE VARIOUS KINDS OF AUDIENCES THAT WILL AFFECT THE STRENGTH OF EDITING REPERTOIRES. WHAT ARE SOME OF THESE?**

- A) Speaker as his/her own audience - editing is minimized, but not completely absent. Punishments by the verbal community will have generated conditioned aversive stimuli by some Verbal behavior.
- B) Talking with a “confidant” (could be a therapist)
- C) In the presence of children
- D) Lenient audience - king’s jester was free from many forms of punishment
- E) Literary audience
  - 1. Some audiences provide for wild extensions, metonymy, etc.
  - 2. Others, such as the scientific audience, provide for only small degrees of metaphorical extensions
  - 3. Symbols are used, because non-symbols would be punished.
  - 4. Authors can create “characters” and write about things with respect to that character that would normally produce punishment (in current usage, a character could seek revenge for bombings of New York city)
  - 5. Note on page 398 that readers can enjoy reading a book, and engage in verbal behavior in the act, without experiencing punishment.

**5. THE FINAL SECTION, “THE NOTION OF RELEASE”, INVOLVES A REJECTION OF MENTAL PROCESSES (E.G., REPRESSION) AS CAUSES OF VERBAL BEHAVIOR NOT BEING EMITTED OR FINALLY EXHIBITED UNDER CERTAIN CONDITIONS. EXPLAIN THE “PRINCIPAL FACTS” AS SKINNER SEES THEM.**

- A) Incipient behavior that has been punished will generate conditioned aversive stimuli and correlated emotional effects such as anxiety. The speaker can escape/avoid these stimuli by “doing something else” or “doing nothing.” The suppressed behavior will, however, be emitted under other conditions or related forms that do not produce punishment.
- B) A person with suppressed verbal behavior may act to find a suitable audience for the behavior or another form of behavior that will not be punished.
- C) Punished behavior that remains strong may generate chronic anxiety. To decrease the anxiety, a person’s escape/avoidance behavior may be aversive to him/herself or others. Moreover, the chronic anxiety may produce other psychosomatic symptoms. Therapy may reduce either or both problems.

- D) Extensive emission of punished Verbal behavior, as in therapy, may produce a “relief” in the speaker. This is not to say that the problem was the inability to say these things. Skinner’s view of therapy is that the therapist establishes a “non-punishing” audience, and the verbal behavior is therefore emitted. Then, there is no punishment of the verbal behavior, and it does not generate conditioned aversive stimuli. Ergo, the troublesome escape/avoidance behavior, and anxiety, are weakened.
- 6. NOTE: THROUGHOUT THIS AND PREVIOUS SECTIONS, SKINNER REJECTS ACTUAL PROCESSES OF REPRESSION, SUBLIMATION, DISPLACEMENT, AND OTHER FREUDIAN PROCESSES. INSTEAD, HE OFFERS WELL-KNOWN BEHAVIORAL PROCESSES TO EXPLAIN WHAT HAPPENS IN THERAPY.**



CHAPTER 17

*SELF STRENGTHENING OF VERBAL BEHAVIOR*

1. NOTE: IN THE FIRST PARAGRAPH, SKINNER MAKES AN INTERESTING, AND IMPORTANT, POINT. THAT IS, HE WILL BE EXAMINING HOW SPEAKERS MIGHT STRENGTHEN THEIR OWN VERBAL BEHAVIOR PRIOR TO COMPOSITION AND EDITING. MOREOVER, THEY DO SO USING THE SAME BEHAVIORS AS THEY MIGHT IN STRENGTHENING THE VERBAL BEHAVIOR OF OTHERS.
  
2. WHY MIGHT VERBAL BEHAVIOR BE WEAK?
  
3. GIVE EXAMPLES OF THE VARIOUS KINDS OF SELF-STRENGTHENING TECHNIQUES.
  
4. NOTE THE USE OF "ABULIA" ON PAGE 408. THIS TERM REFERS TO THE COMPLETE ABSENCE OF BEHAVIOR IN ANY STRENGTH. DEFINITELY AN OLD-STYLE TERM.
  
5. NOTE: IN THE NEXT SECTION ENTITLED "PRODUCTION AND EDITING", SKINNER POINTS OUT THAT MUCH VERBAL BEHAVIOR THAT IS STRENGTHENED BY THE ABOVE TECHNIQUES MAY NOT SURVIVE THE EDITING PROCESS.
  
6. THE FINAL SECTION INVOLVES BUILDING NEW VERBAL BEHAVIOR, NOT JUST STRENGTHENING EXISTING VERBAL BEHAVIOR. HOW MIGHT THIS BE ACCOMPLISHED?

7. IN THE LAST PARAGRAPH OF PAGE 415, A COUPLE OF CONCEPTS SHOULD BE STUDIED. FIRST, HE TALKS ABOUT HOW WE LEARN TO TACT OBJECTS OR EVENTS THAT ARE NOT PRESENT (E.G., “WHAT MOVIE DID YOU SEE LAST NIGHT?”). WHAT IS HIS EXPLANATION?
  
8. SECOND, NOTE THE USE OF THE TERM “OBSERVING BEHAVIOR.” THIS BEHAVIOR IS DEFINED AS “BEHAVIOR THAT RESULTS IN EXPOSURE TO DISCRIMINATIVE STIMULI.” EXPERIMENTALLY, PIGEONS WILL HAVE TWO KEYS TO PECK. IN THE INITIAL STAGE, BOTH ARE WHITE. IF S PECKS THE ONE KEY, THEN THE OTHER WILL TURN RED OR GREEN, DEPENDING ON THE SCHEDULE IN PLACE. THUS, IN THE INITIAL STAGE, A MIXED SCHEDULE IS IN PLACE; THIS CAN BE CHANGED TO A MULTIPLE SCHEDULE BY PECKING ONE OF THE KEYS. EXPERIMENTAL QUESTIONS CENTERED AROUND UNDER WHAT CONDITIONS THE BIRDS WOULD SWITCH FROM MIX TO MULT SCHEDULES. THINK OF AN APPLIED EXAMPLE OF OBSERVING BEHAVIOR.



*CHAPTER SEVENTEEN. ANSWERS.*

1. **NOTE: IN THE FIRST PARAGRAPH, SKINNER MAKES AN INTERESTING, AND IMPORTANT, POINT. THAT IS, HE WILL BE EXAMINING HOW SPEAKERS MIGHT STRENGTHEN THEIR OWN VERBAL BEHAVIOR PRIOR TO COMPOSITION AND EDITING. MOREOVER, THEY DO SO USING THE SAME BEHAVIORS AS THEY MIGHT IN STRENGTHENING THE VERBAL BEHAVIOR OF OTHERS.**

2. **WHY MIGHT VERBAL BEHAVIOR BE WEAK?**

- A) Has never the learned the response in question
- B) Forgotten: passage of time
- C) Inadequate learning
- D) Weak evocative stimulus

3. **GIVE EXAMPLES OF THE VARIOUS KINDS OF SELF-STRENGTHENING TECHNIQUES.**

Category	Kind	Comments/Examples
Manipulate stimuli		
	Improve contact	Get a better view, magnify, look at it repeatedly
	Formal prompts: point to point correspondence of S and R; S can identify R to be strengthened	Lists of reminders
	Thematic prompts: S is "related" to R; S can identify R to be strengthened	What is his name? He studies psychology, lives on Westmoreland, etc.
	Formal probes: point to point correspondence of S and R; S can not identify R to be strengthened	Chants, verbal summator
	Thematic probes: : S is "related" to R; S can not identify R to be strengthened	Pictures of vague stimuli
	Re-combining standard stimuli	Writers create new plots by re-arranging personal relationships, characters, and events

	Change audience	If S wishes to talk about literature, but has a very limited repertoire, hang out with English majors; author may find a reader for in process works, which will strengthen subsequent writing.
	Enhance physical environment of a given audience	Behavior analyst who wishes to write may have pictures of Skinner around!
	Eliminate audience	Some writings are best done in solitude in which writer becomes the most effective listener.
Change level of editing		
	Getting in the mood	Speaker who wants to tell a silly story may engage in some child-like games. In general, emit verbal behavior that might have been punished. Conditioned aversive stimuli may weaken, and more verbal behavior may emerge.
Mechanical production of verbal behavior		
	Random striking of keys on typewriter; using piglatin	Not technically verbal behavior, but may result in verbal behavior.
Change EO		
	Diets, deprivations	Ascetic lifestyles
	Generate aversive conditions	Accept a royalty for a book, which will create a condition in which writing will be negatively reinforced.
Incubation	Get away from situation and interfering variables	When confronted with a problem, go for a drive, go outside and relax.

4. **NOTE THE USE OF “ABULIA” ON PAGE 408. THIS TERM REFERS TO THE COMPLETE ABSENCE OF BEHAVIOR IN ANY STRENGTH. DEFINITELY AN OLD-STYLE TERM.**
  
5. **NOTE: IN THE NEXT SECTION ENTITLED “PRODUCTION AND EDITING”, SKINNER POINTS OUT THAT MUCH VERBAL BEHAVIOR THAT IS STRENGTHENED BY THE ABOVE TECHNIQUES MAY NOT SURVIVE THE EDITING PROCESS.**
  
6. **THE FINAL SECTION INVOLVES BUILDING NEW VERBAL BEHAVIOR, NOT JUST STRENGTHENING EXISTING VERBAL BEHAVIOR. HOW MIGHT THIS BE ACCOMPLISHED?**

Many writers and speakers study and investigate new topics. In so doing, new tacts and intraverbals are created.

7. **IN THE LAST PARAGRAPH OF PAGE 415, A COUPLE OF CONCEPTS SHOULD BE STUDIED. FIRST, HE TALKS ABOUT HOW WE LEARN TO TACT OBJECTS OR EVENTS THAT ARE NOT PRESENT (E.G., “WHAT MOVIE DID YOU SEE LAST NIGHT?”). WHAT IS HIS EXPLANATION?**
  - A) If often asked “What movie did you see last night?”, the person may engage in “observing responses” before the question is asked, and while you are watching the movie. Indeed, specific tacts may be memorized during the movie that can later be emitted (e.g., “Hmmm. This movie is really good. The title is...Oh yes, ‘Invasion of Cleveland’”).
  - B) Moreover, there may also be “bridging behavior” that involves creating a stimulus that survives the time delay. For example, you might pick up a flyer at the movie that will evoke textual behavior in the future when asked “What movie did you see?”
  - C) Self-echoics: repeating a phone # after you hear it, while you are getting to the phone.
  
8. **SECOND, NOTE THE USE OF THE TERM “OBSERVING BEHAVIOR.” THIS BEHAVIOR IS DEFINED AS “BEHAVIOR THAT RESULTS IN EXPOSURE TO DISCRIMINATIVE STIMULI.” EXPERIMENTALLY, PIGEONS WILL HAVE TWO KEYS TO PECK. IN THE INITIAL STAGE, BOTH ARE WHITE. IF S PECKS THE ONE KEY, THEN THE OTHER WILL TURN RED OR GREEN, DEPENDING**



ON THE SCHEDULE IN PLACE. THUS, IN THE INTIAL STAGE, A MIXED SCHEDULE IS IN PLACE; THIS CAN BE CHANGED TO A MULTIPLE SCHEDULE BY PECKING ONE OF THE KEYS. EXPERIMENTAL QUESTIONS CENTERED AROUND UNDER WHAT CONDITIONS THE BIRDS WOULD SWITCH FROM MIX TO MULT SCHEDULES. THINK OF AN APPLIED EXAMPLE OF OBSERVING BEHAVIOR.

When doing a match-to-sample, you may have the kid point and look at the sample before matching it. Or, in naming numbers, you may have the kid match the number and name it simultaneously.



## CHAPTER 19

### *THINKING*

1. IN THE INTRODUCTION, SKINNER MAKES THE POINT THAT VERBAL BEHAVIOR HAS MANY ADVANTAGES TO BOTH A GROUP AND INDIVIDUAL. WHAT ARE THE ADVANTAGES TO THE SPEAKER AND LISTENER?
  
2. NOTE: VERBAL BEHAVIOR ALSO ALLOWS FOR CONTROLLING BEHAVIOR OF DESCENDANTS.
  
3. CHECK THE SECTION ON "COVERT VERBAL BEHAVIOR." WHAT IS THE PROBLEM WITH ONLY CONSIDERING OBSERVABLE BEHAVIOR?
  
4. DOES COVERT VERBAL BEHAVIOR MERELY INVOLVE SUB-AUDIBLE TALKING THAT INVOLVES THE SAME MUSCULATURE AS TALKING?
  
5. UNDER WHAT CONDITIONS DOES VERBAL BEHAVIOR BECOME COVERT?
  
6. ON PAGE 437, SKINNER MENTIONS THAT THINKING WAS DESCRIBED AS "SUB-AUDIBLE TALKING." THIS WAS PROMOTED BY JOHN WATSON. WHY? WHY IS THIS UNNECESSARY?





19. IN THE BOTTOM OF 445, SKINNER MAKES THE CASE FOR VERBAL THINKING HAVING THE SAME PROPERTIES AS VERBAL BEHAVIOR WITH SEPARATE SPEAKER AND LISTENER. IN THE FORMER, WHO “MEDIATES THE REINFORCER?”
20. IN THE NEXT SECTION, SKINNER CONSIDERS WHETHER THINKING IS MERELY VERBAL BEHAVIOR. READ OVER THE SECTION, AND THEN DRAW A CONCLUSION. WHY OR WHY NOT?
21. SO WHAT, IN SKINNER’S VIEW, IS THOUGHT?
22. SKINNER CONCLUDES THE BOOK BY MAKING AN IMPORTANT POINT. TO WIT: VERBAL BEHAVIOR HAS NO SPECIAL CHARACTERISTICS THAT SET IT APART FROM NONVERBAL BEHAVIOR. RATHER, HE HAS CONSIDERED VERBAL BEHAVIOR SEPARATELY FOR PRACTICAL REASONS AND TO FOCUS ON THE SPECIAL CONTINGENCIES ARRANGED BY THE VERBAL COMMUNITY. THUS, WHAT IS SPECIAL IS THIS VERBAL COMMUNITY AND THE RELEVANT CONTINGENCIES OF REINFORCEMENT.





*CHAPTER NINETEEN. ANSWERS.*

1. **IN THE INTRODUCTION, SKINNER MAKES THE POINT THAT VERBAL BEHAVIOR HAS MANY ADVANTAGES TO BOTH A GROUP AND INDIVIDUAL. WHAT ARE THE ADVANTAGES TO THE SPEAKER AND LISTENER?**

Verbal behavior extends the sensory power of the listener, and the action possibilities of the speaker. The wise-but-weak can combine with uninformed-but-strong to produce activities that are superior to those of each.

2. **NOTE: VERBAL BEHAVIOR ALSO ALLOWS FOR CONTROLLING BEHAVIOR OF DESCENDANTS.**

3. **CHECK THE SECTION ON "COVERT VERBAL BEHAVIOR." WHAT IS THE PROBLEM WITH ONLY CONSIDERING OBSERVABLE BEHAVIOR?**

There would be embarrassing gaps in our account of behavior. For example, problem solving, editing, composition, etc. would be absent from the science of behavior.

4. **DOES COVERT VERBAL BEHAVIOR MERELY INVOLVE SUB-AUDIBLE TALKING THAT INVOLVES THE SAME MUSCULATURE AS TALKING?**

No. There are many examples of such behavior that does not involve detectable movements of musculature.

5. **UNDER WHAT CONDITIONS DOES VERBAL BEHAVIOR BECOME COVERT?**

- A) Controlling variables are deficient. For example, a stimulus to be tacted may be obscure.
- B) Covert verbal behavior may be easier and less effortful. Note that the energy level of behavior will decline as long as reinforcers are still produced.
- C) May avoid punishment

6. **ON PAGE 437, SKINNER MENTIONS THAT THINKING WAS DESCRIBED AS "SUB-AUDIBLE TALKING." THIS WAS PROMOTED BY JOHN WATSON. WHY? WHY IS THIS UNNECESSARY?**

To try and explain thinking without mental processes. Skinner finds no advantage to this. First, there is often no detectable musculature; second, there is no important

difference in the audible and subaudible. The latter is in no way the “cause” of the former. They do not compose a “sequence” of covert → overt verbal behavior. Instead, both a functions of other external variables.

**7. HOW DOES SKINNER EXPLAIN DISCRIMINATION, GENERALIZATION, DIFFERENTIATION, ETC.?**

They are not activities or behavior of the person. Thus, we do not “generalize” from one situation to another. Instead, they merely describe controlling relations; or, they describe the effects of contingencies.

**8. THE LAST PARAGRAPH OF PAGE 438 IS CRUCIAL IN UNDERSTANDING BEHAVIORISM AS A PHILOSOPHY. WHAT IS THE ESSENTIAL POINT ABOUT THINKING?**

Thinking is behavior, and can not be distinguished from other actions of the person.

**9. WHAT, THEN, IS THINKING? SEE THE FIRST PARAGRAPH IN “THE SPEAKER AS HIS OWN LISTENER.”**

Verbal behavior that generates its own reinforcement. It does, in a sense, automatically affect the speaker. Could be overt or covert.

**10. WHAT IS SOLILOQUY?**

A kind of “stream-of-consciousness” verbal behavior that is not generally productive thinking.

**11. NOTE: SKINNER MAKES THE CASE THAT THINKING IS BEST THOUGHT OF AS VERBAL BEHAVIOR THAT HAS AUTOMATICALLY REINFORCING EFFECTS ON THE “THINKER.” HE TALKS ABOUT VERBAL FANTASY THAT IS COMPARABLE TO THE WRITER’S WORKS, THE MUSICIAN’S MUSIC, ETC. THEY ALL AUTOMATICALLY REINFORCE THE PRODUCER.**

**12. THE NEXT SECTION DEALS WITH THE PRACTICAL ADVANTAGES OF TALKING TO YOURSELF. SKINNER TALKS OF SELF MANDS. WHY MIGHT THESE OCCUR? WHY MIGHT THEY BE EFFECTIVE?**

They occur because the speaker (speaker and listener are the same person) has in other situations issued mands and received reinforcement for doing so. Skinner talks about “induction.” This is another term for generalization. Such mands could be effective because the listener has been reinforced for responding to mands issued by others. Again, there is a process of induction. Moreover, the listener may learn to respond to self mands because they may involve more effective action.

**13. WHAT ABOUT SELF TACTS?**

There are situations in which tacting an object to yourself may strengthen many effective behaviors with respect to the object. For example, if you emit the tact “positive reinforcer” to some object, then this will strengthen many important behaviors such as using the object in a program or contingency contract.

**14. SKINNER NOTES THAT THE COMPOSITION AND EDITING PERFORMED BY A SPEAKER MAY HAVE AUTOMATICALLY REINFORCING EFFECTS. ANOTHER KIND OF AUTOMATIC REINFORCEMENT IS FOUND IN “PROBLEM SOLVING.” HOW DOES THIS WORK?**

A speaker may probe and prompt his own behavior to tease out other Verbal behavior that is currently weak. He may do this because of he has been reinforced for such behavior by other listeners, but may also engage in such behavior because it produces practical consequences (scientists may, as a result of problem solving, solve many important problems such as finding a cure for cancer or HIV).

**15. EXPLAIN SKINNER’S VIEW OF FREUD’S TERM OF “RATIONALIZATION.”**

Self rationalization may reduce aversive stimuli produced by emitting behavior that is normally punished by others. (I hit someone because he was “out of control.”)

**16. TRANSLATE THE STATEMENT “HE SHOULD HAVE GONE TO CHICAGO.” THIS KIND OF INTERPRETATION IS CLASSIC SKINNER. HE PROVIDES A SIMILAR ANALYSIS IN *SCIENCE AND HUMAN BEHAVIOR*.**

If he went to Chicago, there were reinforcers that would have occurred for doing so.

**17. EXPLAIN HOW SKINNER ANALYZES “RESOLUTIONS.” GIVE AN EXAMPLE.**

A resolution is a self mand that is emitted when there are strong current contingencies to do so, and that sets up future contingencies to control behavior in the future. For example, a heavy smoker may, upon contracting pneumonia, resolve to “never smoke again” and perhaps told all of his friends. Thus, by telling his friends, he sets up future punishers for smoking in the presence of his friends. (Skinner states that “The effect is greater if the resolution is publicly announced...”)

**18. NOTE THE PASSAGE OF THE YOUNGSTER PLAYING PIANO, AND ISSUING SELF MANDS AND TACTS. SKINNER IS TALKING ABOUT HIS DAUGHTER, JULIE.****19. IN THE BOTTOM OF 445, SKINNER MAKES THE CASE FOR VERBAL THINKING HAVING THE SAME PROPERTIES AS VERBAL BEHAVIOR WITH SEPARATE SPEAKER AND LISTENER. IN THE FORMER, WHO “MEDIATES THE REINFORCER?”**

The speaker and listener are one, so the person is involved in both producing the Verbal behavior and providing the reinforcer.

**20. IN THE NEXT SECTION, SKINNER CONSIDERS WHETHER THINKING IS MERELY VERBAL BEHAVIOR. READ OVER THE SECTION, AND THEN DRAW A CONCLUSION. WHY OR WHY NOT?**

In many cases, thinking involves verbal behavior. We may emit tacts, mands, etc. that reinforce our own behavior in doing so. We may “think of 100” by emitting the response “100”, we may think of dogs by emitting the response “dog”, etc. But not all of thinking is verbal. We may think about opening a door by emitting covert behavior that often precedes the behavior.

**21. SO WHAT, IN SKINNER’S VIEW, IS THOUGHT?**

Thought is behavior with respect to environmental events and controlled behavior. This can include covert or overt, verbal or nonverbal. It is most likely going to be operant behavior.

**22. SKINNER CONCLUDES THE BOOK BY MAKING AN IMPORTANT POINT. TO WIT: VERBAL BEHAVIOR HAS NO SPECIAL CHARACTERISTICS THAT SET IT APART FROM NONVERBAL BEHAVIOR. RATHER, HE HAS CONSIDERED**

**VERBAL BEHAVIOR SEPARATELY FOR PRACTICAL REASONS AND TO FOCUS ON THE SPECIAL CONTINGENCIES ARRANGED BY THE VERBAL COMMUNITY. THUS, WHAT IS SPECIAL IS THIS VERBAL COMMUNITY AND THE RELEVANT CONTINGENCIES OF REINFORCEMENT.**

