

Chapter 4

Conceptual Work Sheets for

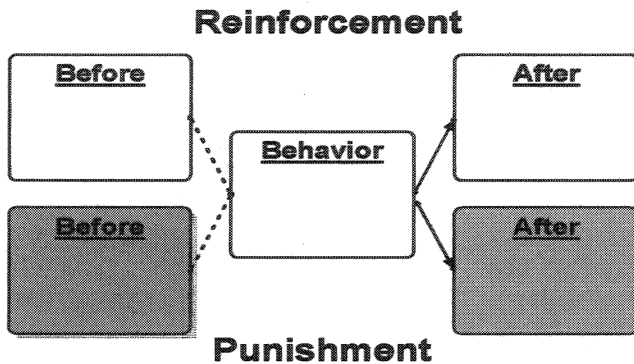
Punishment

Whenever a punishment contingency is in effect, there is also a concurrent reinforcement contingency which is maintaining that undesired behavior. This homework assignment will make this clearer to you. In analyzing a particular behavior for a punishment contingency, you will use either that same behavior or a behavior from the same response class in analyzing the concurrent reinforcement contingency.

In the Skinner Box

The rat has not had water for 23 hours. Each time it presses the lever it immediately gets a drop of water. It also immediately gets a brief electric shock. Please put this example in the following two contingency diagrams.

1. First analyze the **reinforcement** contingency. (For now, do not fill in the shaded area of the diagram)



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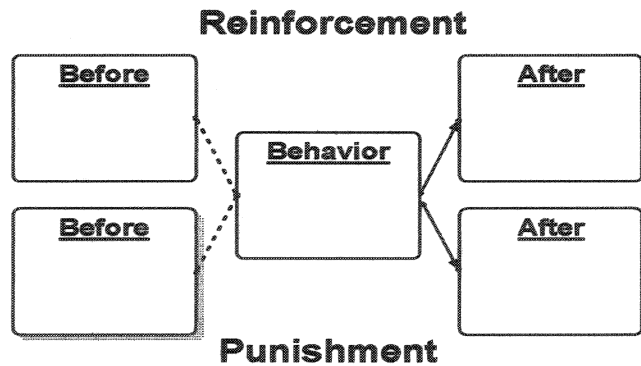
Use the Contingency-Diagramming Job Aid to make sure your diagram is correct

2. Is a reinforcer presented in the after condition?
 - A. Yes
 - B. No

3. What is the *Traditional* term for reinforcer?
 - A. Reinforcer
 - B. Positive Reinforcer

4. What kind of contingency did you diagram?
 - A. Reinforcement
 - B. Punishment

5. Now diagram the **reinforcement and punishment** contingency.



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Note that the behavior is the same for both the reinforcement and the punishment contingencies.

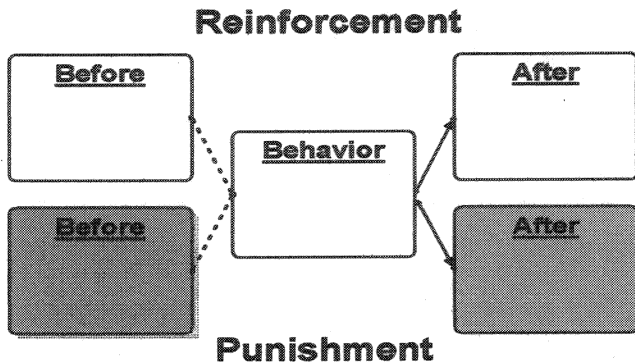
Use the Contingency-Diagramming Job Aid to make sure your diagram is correct.

6. Is there an aversive condition presented in the after condition in the bottom half of the diagram?
 - A. Yes
 - B. No
7. What kind of contingency did you diagram in the bottom half of the diagram?
 - A. Reinforcement
 - B. Punishment

Honesty is the Most Cruel Policy

I'm always pestering you for your opinion. Generally, when I engage in this type of behavior, I receive compliments, praise approval, etc. One day I say to you: "Tell me your honest opinion." "What do you think of this book I'm writing? You can be frank with me. I'm a professional writer, and what I really want is the truth. So just tell me what you think." You reply: "I think the low level of your writing is matched only by the low level of your thinking." I will never ask your opinion again.

First, analyze the **reinforcement** contingency that probably maintains my pestering people for their opinions.

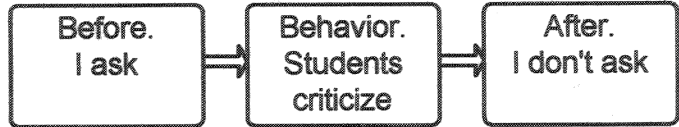


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Use the Contingency-Diagramming Job Aid to make sure your diagram is correct.

8. Is a reinforcer presented in the after condition?
 - A. Yes
 - B. No
9. What kind of contingency did you diagram?
 - A. Reinforcement
 - B. Punishment

One student diagrammed the following as the **punishment** contingency, please analyze it. Remember, I'm the person whose behavior we're analyzing.



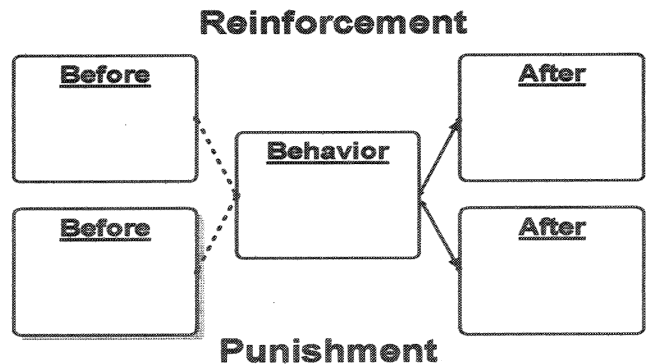
Use the Contingency-Diagramming Job Aid (the pink sheet) to show what is wrong with this analysis.

10. What criteria does it violate (may be more than one)?
 - A. Behavior test
 - B. Related outcomes test
 - C. Action test
 - D. None of the above

Students often make this type of error. It appears to be correct in that it does follow a logical sequence or chronological sequence, but it is not a behavioral contingency.

11. Please explain why this is not a behavioral contingency:

12. How would you diagram the **reinforcement** and **punishment** contingency?



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Note that the praise contingency might have occurred one or more times before the criticism contingency occurred.

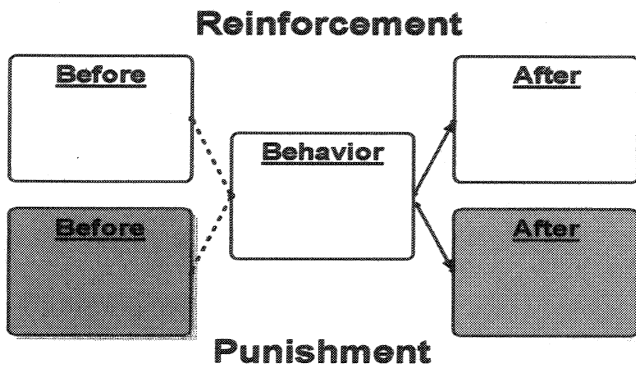
Use the Contingency-Diagramming Job Aid to make sure your diagram is correct. Is there an aversive condition presented in the after condition in the bottom half of the diagram?

- A. Yes
 - B. No
13. What kind of contingency did you diagram in the bottom half of the diagram?
- A. Reinforcement
 - B. Punishment
14. What is *Our* term for negative reinforcer?
- A. Negative Reinforcement
 - B. Aversive Condition

Mae's Elbow

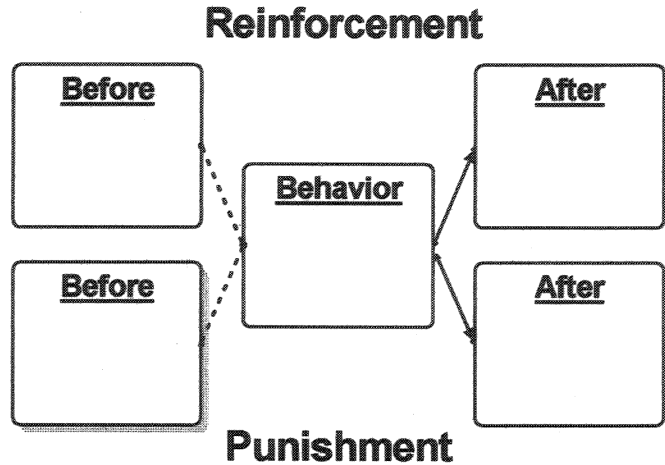
Whenever Juke drums his fingers on his bible in church Mae gives him a bit of her elbow in the ribs which causes Juke to stop his aversive tapping. Juke enjoys the feel and sound of his fingers drumming on the bible.

15. Diagram the reinforcement contingency maintaining Juke's tapping.



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16. What kind of contingency is this?
- A. Punishment
 - B. Reinforcement
17. What kind of reinforcement is involved ?
- A. Reinforcement by the removal of an aversive condition
 - B. Reinforcement by the presentation of a reinforcer
- Whenever Juke drums his bible in church, Mae gives him a bit of elbow; and Juke stops.
18. Diagram the reinforcement and punishment contingency concerning Juke's tapping:



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19. What kind of contingency is this (in the bottom half of the diagram)?
- A. Punishment
 - B. Reinforcement

Your Original Example

Give an original example of a punishment contingency. Please put this example in the contingency diagram. (Note: People often make the mistake of talking about punishing tardiness or being late, but I think they have their eye on the hole and not the donut. The real behavior of interest is arriving on time. So please don't use being late as your example.)

Remember to have a transparency of your original reinforcement and punishment examples ready to present to your colleagues. Try to make it 100% complete, 100% original and 98.9% correct. One of the common problems in the past original examples is the violation or complete strain on the dead-man test. Original reinforcement and punishment examples should always pass the 60 second test. Please generate an example that realistically passes the dead-man and 60 second tests. This separates the very good students from the great!

Some Cautions about Your Original Example

The reinforcement need not be concurrent with (at the same time as) the punishment contingency; it can be in the person's history. For example, at the age of four years, I learned a dirty poem from my buddies. And their immediate laughter reinforced my reciting that poem. At the age of four years and one day, I recited that poem to Mother's Ladies Bridge Club. The recitation, brilliant as it had ever been was promptly punished, not reinforced, by my mother. My buddies' reinforcement and my Mother's punishment of my recitation didn't occur concurrently, but that's still a good punishment example.

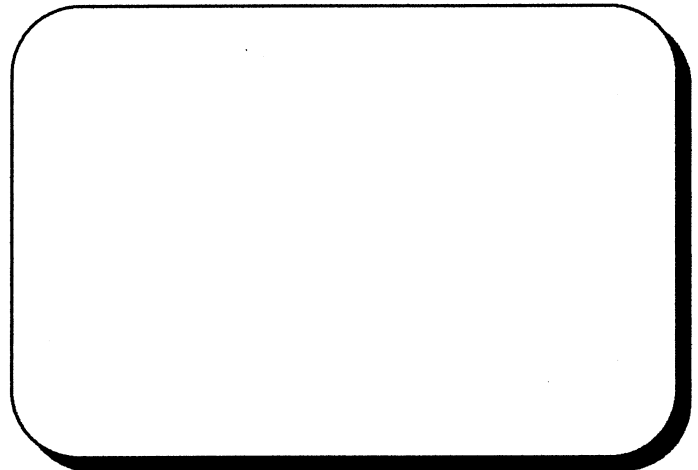
Nonetheless, the deadman test must apply; dead boys don't recite dirty poems. And though the contingencies are not concurrent, the sixty-second test still applies to both the reinforcement and the punishment contingencies; my buddies' laughter must be immediate, and Mother's punishment must be swift.

And though the contingencies aren't concurrent, the behavior is from the same response class -- reciting the dirty poem.

Student examples:

- I talk to my friend in class, and the teacher gets angry.
- The guys reinforce Mike's talking about fantasy baseball, but Karly asks him to change the subject.
- Heather's mother praises her when she burps, but her husband expresses his disgust.

- Erin loves to hear herself sing but her friends moan and criticize when she does.
 - Anna finds herself more attractive when she puts on her high heeled shoes, but then her feet hurt.
 - No toy, attempt to take toy, has toy, no punch, punch. It's really the history. The reinforcement contingency can be from the past.
 - NO sweet taste, eat candy bar, sweet taste, no feelings of guilt, feelings of guilt.
 - Laura the schizophrenic woman hears voices telling her to cut her wrist, she cuts her wrist, she doesn't hear the voices, she's not in restraints, she is.
 - No sport center on the tube. Change channel to sport center from lifetime channel, fiancée punches me in the arm and verbally abuses me.
 - I have no silky smooth legs, I pull wax strip off my leg, I have silky smooth legs and I also have much pain.
 - Uncle is a recovering alcoholic on Antabus. Not intoxicated, takes a drink, intoxicated, not sick, sick
 - Client in MH center has no taste of coffee, steals coffee, has taste, but also goes into movement suppression.
 - No breeze in room, open window, breeze in hot room (escape). No traffic noise, traffic noise.
20. Please describe your original example.

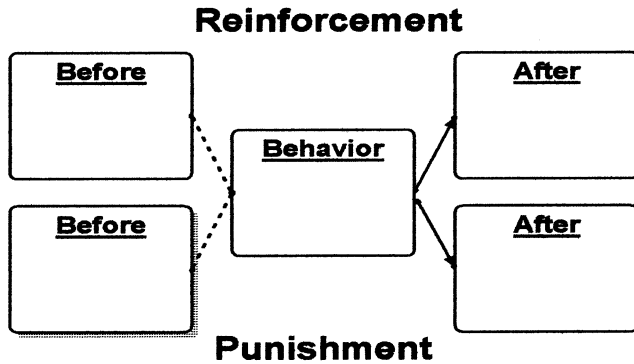


21. First, diagram the **reinforcement** part of the contingency. (You know, the one responsible for the behavior happening in the first place.)

Use the Contingency-Diagramming Job Aid to make sure your diagram is correct.

Now diagram the **punishment** contingency.

(You can put both the reinforcement and punishment contingencies on the same diagram, even if they don't occur concurrently.)



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Use the Contingency-Diagramming Job Aid to make sure your diagram is correct.

NOTE: Don't forget to put your example on a transparency. But you do not need to turn this in with your homework.

Your Original Example of a Sick Social Cycle (Punishment Model)

Now give your original example of a sick social cycle. We know you've already read about the sick social cycle (now both models) in EPB, now we want to see if that much is clear so you can make a real original example. You'll look more into the sick social cycle in a workshow, but that's later, not for this assignment.

Here are some student examples, all of which are real, I believe:

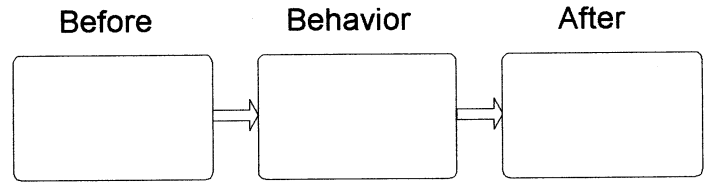
Amy and her husband lift heavy object; Amy whines, so her husband escapes the whine by lifting the heavy object alone.

Mom tells Bob to wash his dish, and he immediately screams, so Mom's telling is punished and she doesn't ask again for a while.

Ben asks for help with his homework, but Scott yells at Ben for asking.

Please describe your example:

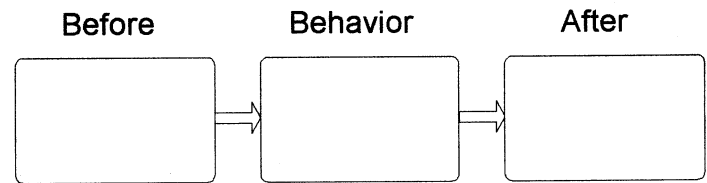
14. Please diagram the *escape contingency* for the perpetrator in your original example and put it on a transparency:



15. Is this an escape contingency?

- A. Yes
- B. No (If not, revise!)

16. Please diagram the *punishment contingency* for the victim in your example and put it on a transparency:



Use the Contingency Diagramming Checklist to analyze your original example

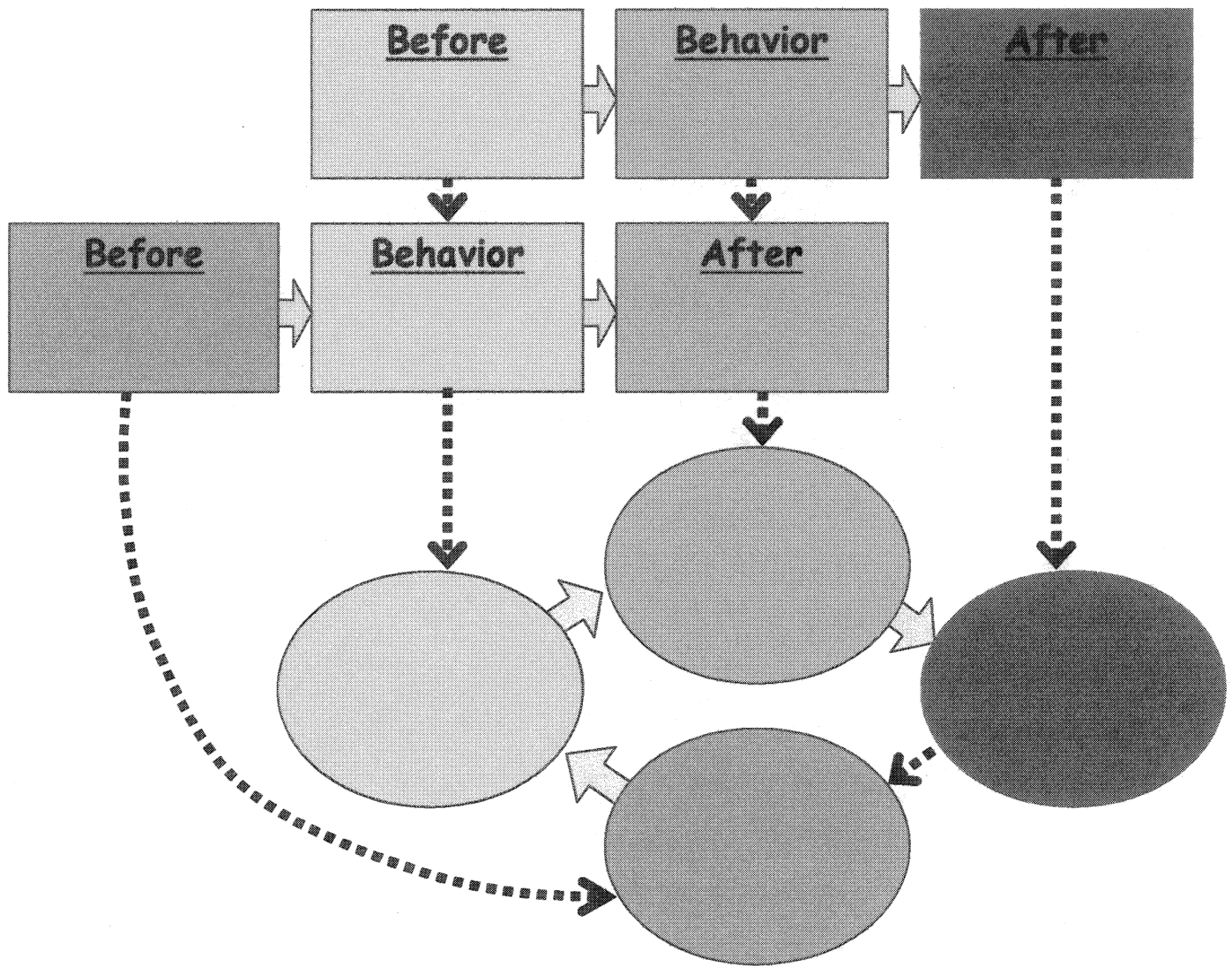
17. Is it a punishment contingency?

- A. Yes
- B. No (If not, revise!)

Finally, please fill out the diagram on the sick-social-cycle diagram on the next page. Then using your transparency master, make a transparency of it to show in class. You do not need to hand this transparency in with your homework. Thank you.

18. Now please fill in the diagram for the whole sick social cycle. (The contingency for the perpetrator goes in the top row; and the contingency for the victim goes in the second row.)

Actually, the perpetrator's contingency could be an escape contingency too, for example, Bobby Brat, the perp., whines when he has to do his homework, and Mellow Mom, the victim, let's him off the hook. So you can use an escape contingency for your perp. too, but be careful.



19. Finally copy the preceding diagram onto your transparency, using the sick social cycle transparency master in your course pack to make your transparency--remember, lay your blank transparency over the transparency master and fill in the words, but don't draw the diagram, because your instructor has a transparency master, itself, on another transparency; so when you put your on top of your instructor's, it'll look way cool; but if you draw the diagram itself, it'll look like crap. You do not need to hand the transparency in with your homework.

NOTE The remaining pages contain a section on independent and dependent variables that is part of this assignment for Psy 100/360, but not Psy 610.

Independent and Dependent Variables

(P610 IGNORE this section)

Instructions

There are several examples provided for you in this homework, each example set is inside its own frame. Read each lettered scenario and then determine which of the lettered lines in that scenario represent the Independent Variables (IV) and which represent the Dependent Variables (DV). You will write these **letters** (A, B, C, etc.) by the respective numbers. It's important to note that some frames will have more than one IV or DV. **Also, you will not use all the letters.**

Cause and Effect

In this section the following definitions will be used.

The IV refers to the cause.

The DV refers to the effect (the behavior you're measuring to assess the effect of the IV)

Frame 1:

- A. We are interested in observing
- B. the effect of
- C. response-contingent food presentation
- D. on the rate of climbing behavior
- E. of a rhesus monkey.
- F. We observe that
- G. food reinforcement
- H. results in
- I. an increase in
- J. the rate of climbing behavior.

1.IV =

2.DV =

Analysis: In this example we are studying the cause-effect relationship between the IV, response-contingent food presentation or food reinforcement (C, G) and the DV, rate of climbing behavior (D, J). The response-contingent food presentation caused an increase in the rate of climbing behavior.

Frame 2:

- A. We are interested in seeing how
- B. the rate of lever pressing
- C. by a rat
- D. is affected by
- E. response-contingent food presentation.

1.IV =

2.DV =

Frame 3:

- A. It was observed that
- B. food reinforcement
- C. increased
- D. the rate of pacing behavior
- E. by a parakeet.

1.IV =

2.DV =

Frame 4:

- A. When a rat was
- B. injected with drug X
- C. it resulted in
- D. an increase in
- E. the frequency of gnawing.

1.IV =

2.DV =

Who does what?

In this section we have expanded the definitions of independent and dependent variables. Analyze the frames in this section using these new definitions:

The IV refers to what the experimenter does to affect the DV.

The DV refers to the behavior that is affected in the subject or organism being studied.

Frame 5:

- A. A psychology student studied the effects
- B. of a fixed-interval schedule of reinforcement
- C. on a pigeon's
- D. rate of key pecking.
- E. the fixed-interval schedule of reinforcement
- F. produced a moderate
- G. rate of key pecking.

1.IV =

2.DV =

Analysis: What did the experimenter (psychology student) do? He put a fixed-interval schedule of reinforcement into effect, that's the IV (B, E). What behavior of the pigeon was affected? The rate of key pecking was affected (D, G), and that's the DV.

Frame 6:

- A. We observe that
- B. the rate of chain pulling
- C. by a monkey
- D. increased when
- E. food presentation was made contingent on chain-pulling responses.

1. IV =

2. DV =

Frame 7:

- A. An experimenter used
- B. a variable-interval two-minute schedule of food reinforcement
- C. to obtain a steady, moderate
- D. rate of key pecking by a pigeon.

1. IV =

2. DV =

The Real Thing!

In this section, the definitions of independent and dependent variable are expanded again:

An IV is an aspect of the environment that the experimenter directly manipulates or varies.

A DV is an aspect of the subject that the experimenter records or observes while the independent variable is being manipulated.

Frame 8:

- A. A high rate of key pecking
- B. by a pigeon
- C. was maintained
- D. when the experimenter delivered
- E. food reinforcement on a fixed-ratio 20 schedule of reinforcement.

1. IV =

2. DV =

Frame 9:

- A. The experimenter
- B. presented high-density, response contingent, electric shock,
- C. and observed that
- D. the subject's
- E. rate of lever pressing
- F. decreased.

1. IV =

2. DV =

Applying to Contingency Diagrams

In this section, we will apply our new found meanings of IVs and DVs to the contingency diagram.

The IV is the variable that is manipulated.

The DV is the rate of the behavior.

Frame 10:

- A. An experimenter maintained lever pressing on a variable-interval 30-second schedule of reinforcement
- B. throughout the experiment.
- C. Halfway through the experiment
- D. she presented
- E. high intensity, response-contingent shock.
- F. The rate of lever pressing
- G. was continuously recorded.

1. IV =

2. DV =

Analysis: This example requires you to distinguish which variable was directly manipulated by the experimenter, and which variable was held constant. The variable that is manipulated is the IV, the high intensity, response-contingent shock (E). And what was being measured? Yes, the DV was the rate of lever pressing (F).

Frame 11:

- A. Response rate
- B. was recorded throughout an experiment
- C. in which the experimenter
- D. doubled the value of a fixed-ratio requirement
- E. after each reinforcement.

1. IV =

2. DV =

Frame 12:

- A. An experimenter varied
- B. the level of food deprivation of a pigeon
- C. and observed the subject's
- D. rate of key-pecking responses
- E. on a variable-interval one-minute schedule of reinforcement.

1.IV =

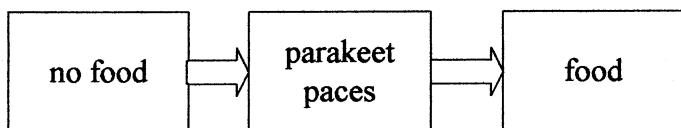
2.DV =

Note that E is not an IV because the experimenter doesn't vary the schedule of reinforcement.

Diagramming the IV and DV

All of these previous examples can be placed into a contingency diagram. Try this example:

It was observed that food reinforcement (IV) increased the rate of pacing behavior (DV) by a parakeet.



See how the IV and DV concepts can be easily found in a contingency diagram. Look at the next example:

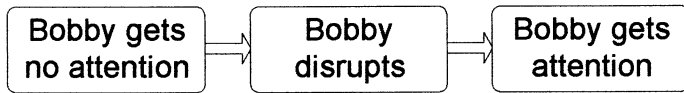
The experimenter is controlling when Rudolph will receive water (IV). What is the behavior that is affected in the subject? It is the rate of Rudolph pressing the lever (DV).



Here is another example with which you are familiar. The IV is Rudolph getting a shock and the DV is the rate of Rudolph pressing the lever.



How about a social example? The IV is Bobby getting attention. Bobby's rate of disrupting (the contingency indicates it will increase in the future) is the DV.



Graphing

In this section, we will learn about the X axis and the Y axis found on graphs. The IV always goes on the X axis, the horizontal axis. The DV always goes on the Y axis, the vertical axis.

20. Label each axis with the appropriate letter, either "X" or "Y".

21. What variable does X represent? _____

22. What variable does Y represent? _____

The following is a table that represents the frequency of lever presses that occurred during any particular minute interval .

Minutes (IV)	Lever Presses (DV)
1	2
2	3
3	6
4	5
5	4
6	5

23. Number both axes from 1 to 6.

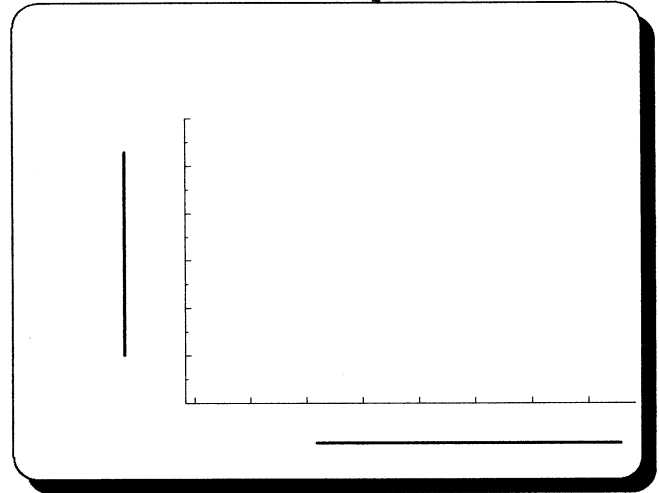
24. Label one axis **Minutes**, and...

25. Label one axis # **Lever Presses** (It's your job to figure out which axis gets which label).

26. Then plot the frequency of the DV according to the above table. You should use a dot to represent each data point and then

27. Connect the dots.

"The Graph"



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