Class Reading Assignment: Skinner, B.F. (1987). Can the Experimental Analysis of Behavior Rescue Psychology, In *Upon further Reflection* (pp.159-172). New York, Prentice-Hall

/17

Group Activity Assignment: Form 4 student groups with 4 students in each group. Write your names, ID numbers and answers in the space provided below, use extra sheets if needed. Everyone in your group gets the same score on this activity so make sure everyone is participating.

Name and ID

_____

_____

Name and ID

_____

_____

1) Summarize Skinner's supporting points related to this statement: "Psychology as a science is, in fact in shambles". (Refer to his points on pages 159-162). Psychology is moving away from natural science methods and into other nonscientific areas (like public policy, ecology, family services, etc.) where the rigorous methods of science are less applicable and therefore more of a "shambles". The more scientific content of psychology had moved into other fields like biology and the physical sciences leaving psychology the areas that do not lend themselves easily to scientific investigation (e.g. the effect of language development on learning). The ingrained tendency to use the notion of "mind" as our model in psychology for studying the brain is problematic to a scientific account. Some areas of psychology (cognitive psychology) have moved too far away from reality in its theory and this has been costly to a scientific study of the subject matter. (must have most of these to get full credit of 4 pts)

2) He asserts that the experimental analysis of behavior is "proceeding in a reasonable ordered way" (page 163) but there are areas poorly understood by its critics. Say what Skinner considers as the "misunderstanding" of the following and give the essential features of his reply.
   a) "Misleading simplifications": (3 pts)
      i) The misunderstanding: By making things simple we learn very little about the natural world with all its complexities. (e.g. The studies in operant chamber leave out critical biological factors and are not like the word the rats and pigeons normally live in so the results from those studies are not relevant to the behavior in the real world)
      ii) The reply: All scientific experiments attempt to control for unwanted variation so that the effects of IV manipulations can be detected on the DV. This is common practice in other areas such as chemistry or physics and is accepted why not in psychology?

b) "Autoshaping": (3 pts)
   i) The misunderstanding: Autoshaping shows that the distinction between operant and respondent control is questionable and therefore all the studies involving pigeons pecking keys for food when signaled by lights, that were supposed to be about operant conditioning should be reinterpreted in light of autoshaping.
   ii) The reply: Responses cannot be interpreted by topography alone but by controlling variables. Pigeons will press levers and rates will "peck" keys if the appropriate contingencies of reinforcement are in effect. Responses can be controlled by multiple variables (both operant and biological variables) and we cannot totally ignore either. We need to document the contributions of both, not eliminate one (operant conditioning) in favor of the other (biologically relevant relationships seen in respondent conditioning).

c) "The Garcia Effect": (2 pts)
   i) The misunderstanding: The delayed effects seen in taste aversion learning (Garcia effects) cast doubt on the principle of immediacy as a key requirement for punishment (or reinforcement) to be effective. Because the animals avoided foods that made them sick hours after the stimuli related to the food had past, made immediacy seem irrelevant.
   ii) The reply: This is a special case that has evolutionary relevance (survival value) and should not be considered a general case against immediacy. It actually supports Skinner's early idea about punishment effects being related to Stimulus-Stimulus pairings where neutral stimuli take on aversive properties that later lead to escape or avoidance of those stimuli in the future and less of the punished behavior occurs.

d) "Learning processes": (2 pts)
   i) The misunderstanding: Because behavior analysis does not look inside the organism for its explanations it can never really understand the real causes of behavior.
   ii) The reply: What is inside the organism is relevant to anatomy and physiology and should be explained in those terms as it relates to behavior. By looking at behavior in its environmental context we better understand the functions of the physiological systems and can use this understanding to predict and control behavior (given the appropriate physiology). No mentalism or hypothetical constructs are needed just good physiology and behavior analysis.

3) At the end of the chapter Skinner writes "The experimental analysis of behavior is alive and well. Psychology needs it." This was written in the 1980's, is it true today? Explain your position. Anything reasonable was given full credit (3 pts)