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1. There is an idea that "when you find one rare patient, you have to do all you can to dig out him/her brain", which is why we often see studies with only one (or few) patient(s), but each with a lot of experiments. On the other hand, we are also told that in order for results to be generalized and conclusion applicable to the population, psychological scientists usually recruit a lot of human participants in each experiment. How do you reconcile these two equally justifiable approaches? Say if you hear a person saying: "this is just one subject, show me more data then I will be convinced", do you agree? Either yes or no, please provide your rationale. (20%)

2. Psychological science has moved beyond the traditional behaviorism approach to adopt a more "cognitive-oriented" thinking. Therefore, if one says: "To me, behaviorism and cognitive psychology are all the same Stimulus-Response (S-R) experiments. Can you explain what does he mean? And if he is right (or wrong), at what point was he right (or wrong)? Please give one example to explain where the two approaches divert. (20%)

3. Consciousness has been termed the "Holy Grail" of human cognition. Why? In recent years, there are several hypotheses, such as the global workspace model by Bernard Baars, or the "amazing hypothesis" by Francis Crick, to explain human consciousness. Despite of these achievements, still others doubt the consciousness research would take decades before we can fully grasp its complicated nature, because of the "explanation gap". What is this? Therefore, many cognitive scientists instead study "perceptual awareness", which is more quantifiable or scientifically addressable. What are the common phenomena, or experimental methods, that they use to study perceptual awareness? (20%)

4. In the history of cognitive science, there are full of early claims, hypotheses, or theories that turned out to be wrong (or corrected). For example, the father of behaviorism John B. Watson's famous statement: "Give me a dozen babies, and I can turn them into lawyers, polices, president, thieves, or beggars, as you wish" Can you name one psychologist (except JB Watson) whose famous saying, idea, or hypothesis, was later tested wrong or modified? How was it wrong? And what is the more correct (mostly modern) version? (20%)

5. One of the interesting puzzles in identical twin studies is that, on one hand, we hear anecdotes of a few early-breakup twins, who grew up separately and unbeknown to each other (due to war or family reasons), later met by chance and realized that they shared a lot of common interest (e.g., preferred colors, dressing styles, etc). On the other hand, we also hear that most identical twins who grow up in the same family, go to the same school, etc, later develop totally diverse personalities, so different that their personalities are just like between the two random people drawn from street. How do you explain this seemingly contradiction between gene and environment in shaping human personality? (20%)