

JUMPING TO CONCLUSIONS: Critical Thinking Exercise

In each of the following situations, the stated conclusion may be erroneous or is not justified by the facts. On a separate sheet of paper, describe the error or errors that invalidate the conclusion and suggest changes to improve the conclusion.

1. A large sample of people of all ages was given an IQ test. It was noted that people over 50 generally had lower IQ scores and it was concluded that intelligence declines with age.
2. A psychotherapist invented a new technique for treating depression. He randomly selected half of his depressed clients and gave them the new therapy for the next six months. At the end of that time, he asked all his clients, those getting the new therapy and those getting the old, to rate their depressed symptoms as either "much worse", "worse", "about the same", "better", or "much better". He concludes that the new therapy is better than the old one he had been using.
3. A psychologist compares ESP ability in men and women by having his subjects predict which of five differently colored balls will be randomly drawn from a can by a blindfolded assistant. After repeating the procedure 50 times with each subject, the women's predictions are 20% more accurate than the men's, leading to the finding that women have better ESP than men.
4. A guest expert on a TV talk show claims that the divorce rate for interracial marriages is five times higher than the divorce rate for same-race marriage partners and urges the viewers to avoid marrying someone of a different race.
5. Larry visits a gambling casino and loses all his money playing Blackjack. The next day he returns to playing Blackjack, bringing twice as much money with him as before, reasoning that his chances of winning are so much better on the second day because he lost so consistently on the first day.
6. A clinic sponsoring a Stop Smoking treatment program surveys all the people who completed the program during its first year. The survey revealed that 74% of the respondents were still not smoking three months after completing the program. In their next advertising campaign, they claim a 75% success rate for those who enroll in their program.
7. One hundred first-semester freshmen enrolled in a psychology course. For the first half of the semester, the students were given traditional lectures. For the second half of the semester, material was presented using a multi-media format consisting of videos, computer simulations, and hands-on demonstrations. Since the students made higher grades and were more satisfied with the course during the second half of the semester, the instructor concluded that the multi-media presentations were more effective.
8. A researcher wanted to know how the general population felt about putting the names and faces of men who had been charged of soliciting prostitutes on local television shows. Residents opinions were obtained by contacting by phone every tenth registered voter selected randomly by a computer. The survey revealed a strong favorable reaction to the policy.
9. An investigator gave a personality test to a large number of crack cocaine addicts. The addicts' scores on the trait of "emotionality" were significantly lower than the scores on that trait obtained from the general population. This caused the investigator to believe that highly unemotional people are more susceptible to crack cocaine addiction.