We conducted a variation of Asch’s (1951) conformity study in which participants made judgments about the length of lines. We randomly assigned participants to one of two conditions and told them that the study involved perceptual abilities. In the first condition, participants estimated the length of lines after hearing five people pretending to be participants (confederates) give inaccurate estimates. In the second condition, participants estimated the length of lines without hearing estimates of confederates. As we expected, participants in the first condition were less accurate in their estimates of line length, demonstrating the tendency to conform to majority influence.

A) How would each element below be related to the specific content of the experiment reported in the abstract?

- Control group
- Deception
- Operational definition of the dependent variable
- Hypothesis
- Debriefing

B) How might participants’ estimates of line length in the study be related to the following?

- Cognitive dissonance
- Maslow’s hierarchy of needs

Scoring Criteria

General Considerations

1. Answers must be presented in sentences, and sentences must be cogent enough for the student’s meaning to be apparent. Spelling and grammatical mistakes do not reduce a student’s score, but spelling must be close enough so that the reader is convinced of the word intended.
2. Within a point, students are not penalized for misinformation unless it directly contradicts correct information that would otherwise have scored a point.
3. Students can only score points if information is presented in context. This means that they must clearly convey which part of the question is being answered before a point may be scored. For example, if a student correctly explains that participants should be informed afterward that the experiment was really about conformity but does not identify this as debriefing, the point is not earned. In some cases, it is possible to infer context from the structure of the essay.
4. Throughout the essay, definitions alone are not sufficient to score points. Every point requires students to relate their answers to information in the abstract.
Part A: Research Elements (Points 1–5)

To score any point in part A, students must relate their answers to specific content from the experiment.

Point 1: Control group
To score this point, students must establish that the control group
a. consists of participants who did not hear inaccurate estimates or
b. is the second condition (accept “group B”) or
c. is the group without confederates

Point 2: Deception
To score this point, students must establish that deception occurs
a. because the participants were not told the experiment was about conformity or
b. because the participants were told the experiment was about perceptual abilities (or line length) or
   c. when inaccurate information is given about the length of the lines or
   d. because of the use of confederates

Note
Do not score: Statements such as “The experimenter lied,” because there is no specific information from the experiment.

Point 3: Operational definition of the dependent variable
To score this point, students must describe a measurement of line length (accuracy) or how many participants agreed with confederates.

Notes
a. Good answer: “The participants’ estimates of the lengths of lines.”
b. Acceptable answer: “The participants’ answers.”
c. Do not score: “The participants’ reactions,” because the word “reaction” is too broad.
d. Do not score: “The participants’ tendency to conform,” because there is no sense of an operational definition.
e. Score the point if the student discusses the measurement only with regard to one group (“the answers of the experimental group”).
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Question 2 (continued)

**Point 4: Hypothesis**
To score this point, students must present the hypothesis—an expectation about the relationship between variables—in either general terms (“People have a tendency to conform in groups”) or specific terms (“The first condition will have more inaccurate estimates of line length than the second condition”).

*Note*
*Do not score* the point if
a. the student phrases the hypothesis in the *past tense*, because this represents the results and not the hypothesis (“The hypothesis is that people in the first condition were less accurate”). Accept the present tense, future tense, or subjunctive mood (indicated by the word “would”). The student may begin by saying, “The hypothesis was” and correctly write the hypothesis in an appropriate tense.
b. the student provides a research question rather than a hypothesis (“The hypothesis is, ‘Do participants conform in groups?’”).
c. the student discusses only one variable (“Participants will conform”).

**Point 5: Debriefing**
To score this point, students must explain that researchers need to inform participants *(after the experiment)* that
a. the experiment is actually about conformity or
b. the experiment really is not about perceptual abilities (or line length) or
c. they were misled by confederates or
d. the confederates were not actually participants

*Note*
a. *Do not score* the point if the student merely states that debriefing occurs after the experiment.
b. *Do not score* the point if the student simply discusses deception and not the need to clear up the deception (“Debriefing occurs when deception is used in an experiment”).
c. *Do not score* the point if the student limits the discussion of debriefing to a summary of the results of the experiment.
d. *Score* the point if a student says that debriefing is not mentioned in the abstract.
Part B: Relation of Line Length Estimates to Concepts (Points 6 and 7)

To score either point in part B, students must relate their answers to participants’ responses or conformity.

Point 6: Cognitive dissonance
To score this point, students must describe

  a. a tension or discomfort created when a participant questions his or her own estimate of line length in light of the confederates’ responses or
  b. conflicting (accept mismatched, discrepant, different, etc.) thoughts within a participant or between a participant’s thoughts and behaviors (“The thoughts of the participants conflicted with the length estimates they gave”).

Note
Do not score the point if the student describes a conflict between a participant and confederates (“Dissonance occurs when a participant disagrees with the confederates about line length”), because cognitive dissonance is intrapersonal, not interpersonal.

Point 7: Maslow’s hierarchy
To score this point, students must relate some aspect of Maslow’s hierarchy of needs to participants’ answers or conformity.

Note
Students typically do this by

  a. relating love, belonging, acceptance, fitting in, affiliation (or a similar term) to participants’ being more likely to conform in their estimates of line length or
  b. relating self-actualization to participants’ being less likely to conform in their estimates of line length.
The central group of the experiment in this case, the second condition group in which participants estimated the length of lines without hearing estimates of confederates, serves as a comparison to the experimental group. Without a central group, the individuals conducting the experiment would not be able to identify a cause-and-effect relationship. The deception in the experiment is utilized by the confederates, actors who are purposely lying about the estimates of the line in order to elicit a conforming response from the participants. The dependent variable in an experiment is what is being measured according to manipulations in the independent (explanatory) variable. In the context of this experiment, the dependent variable would be the accuracy of the participants' estimates of line length. A hypothesis is a statement that makes a prediction about the results of an experiment, usually in the form of a cause-and-effect relationship. In this experiment, the hypothesis is that individuals will be less accurate in their estimation of line length when subject to conditions in which their fellow peers give an incorrect answer (which they believe to be true and thus conformat). A debriefing is the results of the experiment, in effect, a conclusion. In this experiment, the debriefing details the results that participants in the experimental group (with the central actors) were less accurate in their estimates of line length than the central group, demonstrating the tendency to conform to majority influence. Cognitive dissonance affects the stress and anxiety produced when
an individuals actions and attitudes disagree cognitive
dissensiveness would be apparent in the participants of the experiment
and would result in psychological tension. Magley's
hearing of needs, which argues that an individual must satisfy
therefore certain needs (physiological, safety, relationship, self-esteem,
self-actualization) in order to proceed towards self-actualization would
be apparent in the confirming actions of the participants. By lying,
or conforming to the expectations of the group, the participants of
the experimental group are satisfying relationship
needs; they act in accordance with the group and their peers.
Based on the information in the abstract, the control group for this conformity study would be the one that contained no confederates. The participants in the group with no confederates were used to compare to the group. Based on the information in the abstract, the control group for this conformity study would be the one that contained the confederates giving inaccurate estimates. Researchers would use this control group to compare to the other group containing no confederates. The confederate by using confederates and having them purpose give inaccurate estimates, the participants answers were altered because of deception. The dependent variable in this experiment would be the rate of conformity, which was dependent on whether confederates were present or not. The hypothesis is that people are more will be
more likely to conform to an idea when being influenced by a majority. People's tendency to conform always increases with the number of other people already adhering to an idea. Cognitive dissonance may have influenced participants' estimates of the line lengths.

When a person believes something but then says out loud to others that they believe something else, they become distressed and look for a way to relieve the tension. This may explain why people conform. They think they know the length of the line, but start to second-guess themselves when many others say something else. The participant becomes confused, but ends up choosing what the others did to relieve their cognitive dissonance.
In this experiment the control group is the people who are in the first condition and are pretending to be participants. They hypothesized that the participants in the first condition were less accurate in their estimates because of their tendency to conform. The experimenters made an educated guess that the experiment would come out that way. The dependent variable is the confederate's estimate. It is required that the participants are debriefed after the procedure. They must be told what the experiment was for and the results.

Cognitive dissonance might play a role if a participant in the first condition thinks the line is one length and they say another because of the tendency to conform and then they convince themselves that the others were closer to the right answer even though that may not have been correct. If a person was at the point in Maslow's hierarchy of needs where they want to be accepted by others they might choose to answer what the other people answered.
in order to be accepted. They might not have the self-confidence to stick to what they believe is the right answer.
Question 2

Overview

This question required students to apply their knowledge of research. The question presented the abstract of a research study and asked students to identify the components of the study (control group, deception, operational definition, hypothesis, debriefing). Finally, the question asked students to hypothesize how particular cognitive and motivational concepts could influence the outcome of the study.

Sample: 2AA
Score: 6

The student earned Point 1 by correctly identifying the control group as the second condition. The essay states that deception is “utilized by the confederates,” and was awarded Point 2. The student correctly provides a definition of the dependent variable as the accuracy of line length, so Point 3 was awarded. Point 4 was earned because the student correctly formulates the hypothesis as “individuals will be less accurate in their estimations of line length when … their fellow peers give an inaccurate answer.” Point 5 is not addressed in this essay. For Point 6, the student begins by providing a definition of cognitive dissonance, but the definition alone is not sufficient. The student earned Point 6 by linking the internal discrepancy of the perceived line length and the action of saying something different. Point 7 was earned because the student mentions lying about the line length as a way to meet relationship needs.

Sample: 2BB
Score: 4

This essay did not earn Point 1 because the treatment group is incorrectly identified as the control group. The student correctly links the definition of deception to the experiment and so earned Point 2. The “rate of conformity” accurately describes one measure of the dependent variable, so the student earned Point 3. Point 4 was earned because the student offers a prediction of how conformity (IV) is linked to estimates of line length (DV). The student does not attempt Point 5. Two elements are required for the essay to earn Point 6. The student identifies cognitive dissonance as an operator in influencing participants’ estimates, and an internal discrepancy is referenced with “says out loud to others that they believe something else,” and so Point 6 was earned. The student does not attempt Point 7.

Sample: 2CC
Score: 2

The essay did not earn Point 1 because the control group is incorrectly identified as the first, rather than the second, condition. The student does not attempt Points 2 and 3. Point 4 was not earned because the student phrases the hypothesis in the past tense. The essay did not earn Point 5 because the debriefing information does not relate the definition of debriefing to the content from the experiment. The student correctly identifies a discrepancy between what the participant knew to be the actual line length and what was reported and so earned Point 6. Point 7 was awarded because the student correctly relates the participants’ need for acceptance to conformity.