

# QUESTIONS TO ASK WHEN EXAMINING A POSITION

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**I**t is vital to learn how to evaluate an argument calmly and objectively. Discussing the following questions will help. These questions will enable you to break down an argument into its component parts, thereby avoiding the common tendency to be swayed by a presenter's delivery techniques or by one's own set of biases and opinions.

- Question: *How Empirical Is the Presentation?*

The most persuasive argument is the one that supports its thesis by referring to relevant, accurate, and up-to-date data from the best sources possible. One should investigate the credibility of the author, how recent the material is, the type of research (if any) that supports the position outlined, and the degree of documentation behind any argument. Empiricism implies going to the best source for material. This suggests that original research material is preferable to secondary sources, which in turn are preferable to hearsay.

- Question: *What Is Fact? What Is Opinion?*

A *fact* is a statement that can be proven. In contrast, an *opinion* is a statement that expresses how a person feels about an issue or what someone thinks is true. Many authors blend fact and opinion; it is the responsibility of the critical thinker to discriminate successfully between the two.

This process of discrimination often ties in with the concept of empiricism. Facts are generally empirically determined from research. They are documented and can be known or observed by other people. Facts can be verified in other sources or can be replicated by other research. Good facts should be most convincing in any issue.

Opinions should carry less weight in evaluating an argument. While the writer may believe them to be true, opinions are a product of the writer's biases and personal system of beliefs. While many opinions make good sense and may win a reader's approval, they must still be classified as mere opinions if there is no factual evidence supporting them. Opinion may, in fact, be entirely correct, but generally it still should be viewed with less trust than facts.

Some statements contain both fact and opinion. For example, research has demonstrated that animals living in crowded cages show more aggressive behavior than those living in less crowded cages. A statement such as "Overcrowding of people in slum areas will foster

high levels of aggression, rape, and child abuse in the same way that one sees in caged animals" contains elements of both opinion and fact.

- Question: *What Propaganda Is Being Used?*

*Propaganda* is information presented in order to influence a reader. It is not necessarily "good" or "bad." Many authors consciously use propaganda techniques in order to convince their readers of their special point of view. A close look at the author's background or some of the motivations and editorial policies of the source of the publication may provide clues about what types of propaganda techniques might be used.

- Question: *What Cause/Effect Relationships Are Proposed?*

Much material is written to establish or advance a hypothesis that some circumstances "cause" specific things to happen. Experiments often consist of searching for cause/effect relationships. Scientists seem to be linking more and more observations with their antecedent causes. Students should note when an issue has at its heart a disputed cause/effect relationship; isolating the claim and examining the relationship is the readers' responsibility.

- Question: *Are These Cause/Effect Relationships Merely Correlations?*

Many cause/effect statements are flawed because no appropriate research or evidence has isolated a single cause. There may be other hidden factors underlying the relationship. A good example is this statement: "Birds fly south in winter because it gets cold in northern areas." This statement is plausible, and many readers would accept it because it "makes sense." Data exist to show a relationship between temperature and bird population density: population decreases as temperature decreases. However, no experiment has conclusively established that temperature is a causative factor of bird migration. Alternative hypotheses may very well also explain the behavior. Food supplies may become scarce during low-temperature periods, breeding instincts may precipitate migration, or the birds may simply want a change of scenery! If sufficiently controlled experiments could rule out these alternative hypotheses, the cause/effect statement could be made. As it is, a simple correlation (statement of coincidence) is all that remains: "Birds fly south at the same time

that the weather turns cold." It would even be possible (although not very plausible) with the observed data to infer the opposite causation: "It turns cold in the northern latitudes because the body heat from migrating birds is no longer present!"

Students should be made aware that faulty cause/effect statements may be a major source of confusion and misdirection used by authors to defend their points of view. In some cases, the faulty cause/effect proposition is the only rationale used by an author. A good technique for analyzing this sort of error is to have the students try to generate alternative plausible hypotheses for any proposed cause/effect relationship.

- Question: *Is Information Distorted?*

Many authors, in an attempt to produce facts to substantiate their positions, quote statistics and research that support their viewpoints. All of these statements of facts may be biased. "Statistics don't lie—statisticians do" is a truism. Students should always question the bias involved in obtaining and presenting data. If averages are given, ranges and standard deviations should be evaluated critically. One interesting question that can be raised is: What statistics or data are missing? If a simple survey could be done (in lieu of a statement such as "Most Americans believe that . . ."), why was such an easily supportable piece of data not produced?

Students should learn not to be too easily impressed by statistical data. Tabulated numbers or graphs may only reflect opinions.

- Question: *Are Analogies Faulty?*

Many authors make much of analogies as they attempt to prove their theses. An *analogy* is a comparison of a hypothesis (which is unproven) to a known set of causal events. For example, a statement such as "The United States should not be getting involved in Iraq's politics; we will have another fiasco as we did in Vietnam" uses an analogy. However true the second part of the sentence may or may not be, it should not necessarily be accepted as a demonstration of the truth of the first part of the sentence. Analogies usually ignore many differences (in this example, differences in military position, geographic location, political motivation, and other fac-

tors) that make the current situation unsuitable for comparison and render the analogy worthless.

- Question: *Is the Author Oversimplifying the Issue?*

Authors generally try to show their theses in the best possible light and to discredit opposing positions. When authors are so single-minded as to completely ignore opposite positions, they probably are guilty of oversimplification.

It may be argued, for example, that bilingual education has been shown to be beneficial for students. However, if data are presented without a discussion (even a derogatory discussion) of the many social ramifications of bilingual education programs, the argument has not answered all of the important questions.

- Question: *Is the Author Stereotyping?*

This sort of logical flaw is similar to the cause/effect flaw. The authors may have observed some general behavior; they then may attempt to apply this general behavior (which may or may not be true) to a specific individual or situation. For example, if an author asserts that American cars are inferior to foreign cars (which may or may not be true), he or she might not establish that any *particular* American car is truly inferior. Each point should be analyzed as it is empirically observed, not as it is grouped with other observations.

- Question: *Are There Faulty Generalizations?*

In the case of a faulty generalization, a judgment is based on inaccurate or incomplete information. For example: "Ducks and geese migrate south for the winter; therefore, all birds migrate south for the winter."

In presentations, many subtle forms of inappropriate generalizations may occur. The most common form concerns research in one area being applied to other areas (as in faulty analogy). For example: "The brain deals in electric potentials. Computers deal with electric potentials. We can thus say that the brain is a computer."

Another example of a faulty generalization is when an author observes only one event or cites only one case study and infers that this applies to many other phenomena. Sigmund Freud could be considered guilty of this—his theories of behavior are derived from only a few published observations of individual case studies.