CONSTRUCTING A LOGICAL ARGUMENT

The purpose of most business writing is to recommend some course of action ("we should open a branch office in Duluth"; "management should institute a policy of reimbursing employees for overtime"; "we should purchase laptops for the marketing department"). As a person making the recommendation, it is your job to back it up with a well-constructed, well-supported argument. As a person making a decision about whether or not to follow a recommendation, it is your job to determine whether or not the argument is logical.

Rational arguments are built upon evidence that leads to a conclusion through an accepted pattern of reasoning. (These patterns are sometimes called "warrants.") The validity of the argument should be tested by evaluating both the data cited and the reasoning process used to connect the evidence to the conclusion.

Keys to a Convincing Argument

Arguments are weakened when their authors obscure the main point of the argument, neglect to include crucial evidence, oversimplify or complicate the issue, or don't anticipate counter arguments. To make your arguments as convincing as possible, include the following:

A clear and delimited statement of the subject. Make sure the audience understands exactly what you are arguing for or against, or what you are recommending. Don't confuse the issue by trying to argue for two or more things within the same communication. (If you are trying to convince your superior to allow you to hire additional staff, it is probably not the time to argue for additional equipment as well.)

A definition of all terms used in the argument. This includes both words that may be unfamiliar to the audience as well as those at high levels of abstraction. ("In order for the plan to be successful, we will need the cooperation of every staff member." What constitutes "success"? How are staff members being asked to "cooperate"?)

Adequate evidence. See below.

A clear and logical reasoning pattern. See below.

Answers to contradictory arguments and evidence. Any argument contains contradictory points of view. In most cases, it is better to recognize the opposing evidence and/or arguments and refute them. If you cannot refute a point, concede it rather than ignore it.

Evidence

The evidence you use to support your argument should be reliable: that is, it should be accurate, relevant, representative and sufficient.

Be careful to distinguish a <u>fact</u>, something that is verifiable; from an <u>inference</u>, a conclusion based on available evidence; from an <u>opinion</u>, a belief not based upon absolute certainty or knowledge, but which nonetheless seems valid to the individual.

> *FACT*: George is driving a Mercedes 250SL.
>
> *INFERENCE*: George is doing well financially.
> [In reality, George could have borrowed the Mercedes,
> be taking it for a test drive or stolen it.]
>
> *OPINION*: George is a great guy because he is
> driving a Mercedes.

Three commonly used sources of evidence in business writing are: statistics; examples (i.e., specific instances of the general point being made); and the testimonies of experts.

Patterns of Reasoning

Facts alone rarely, if ever, convince. In order to make a persuasive argument, facts need to be related to one another in a logical manner. A <u>logical statement</u> is a conclusion based on reasoning. Logical statements depend on inferences drawn from facts, but are not necessarily facts themselves. If the conclusion (or recommendation) is to be valid, the reasoning pattern must follow certain commonly accepted rules.

In Western thought, there are two basic reasoning patterns, inductive and deductive:

> **Inductive reasoning**: In inductive reasoning, individual cases or examples lead to a general conclusion. Inductive reasoning is used both to generalize from observations and to identify the cause of a set of phenomenon.
>
> Suppose, for example, that after taking a training seminar with "Write Well, International," participants reduce the amount of time it takes them to write memos. That observation might lead you to hypothesize that taking a "Write Well" seminar increases writing efficiency. One example of this would not necessarily validate the conclusion, but if the same phenomenon occurred four, five or a dozen times, the conclusion would be strengthened. Inductive reasoning, then, only leads to the <u>probability</u> of a conclusion. Every possible instance would have to be examined if the conclusion were to be judged valid beyond any doubt. Obviously, the larger the sample, the more confident the writer/speaker can be that the conclusion is correct.

Deductive reasoning: Deductive reasoning moves from the general principle to the specific case. For example, you could draw the following conclusion by reasoning deductively:

> *Major Premise:* Staff members who have participated in
> the "Write Well, International" seminar write more efficiently.
>
> *Minor Premise:* Sam Jones is a seminar participant.
>
> *Conclusion:* Sam Jones will write more efficiently.

Together, the above three sentences constitute a <u>syllogism</u>, the classic pattern used in deductive reasoning. Deductive reasoning leads to the <u>inevitability</u> of a conclusion, assuming that the major premise and the minor premise are true. However, using deductive reasoning can be tricky since in reality we can examine only a few instances in any given situation, and, therefore, it is usually difficult to make a generalization that applies to all cases.

Ways to Evaluate an Argument

In evaluating an argument, you need to test both the data and the warrants.

When looking at the data, ask: What is the source? Is this a fact, or an inference or opinion masquerading as a fact? Is the evidence accurate? Is it current? Is it relevant to the argument at hand? Have the statistics been evaluated properly? Is the authority cited really an authority on the subject? Is the evidence biased in anyway? Is there enough of it?

The following questions should be asked in order to test the reasoning process:

> **Inductive**: Are enough examples cited to produce a valid conclusion? Are the instances typical? Are negative instances accounted for? If you are attempting to identify the cause of a phenomenon through the use of inductive reasoning, ask if the data alone is sufficient to bring about the effect, or if some other circumstances or events are the cause.

> **Deductive**: Are the major and minor premises true? Is the conclusion based on the premises?

Common Reasoning Fallacies

If you examine many arguments closely, you will often find that their authors have used techniques which make those arguments shaky and thus their conclusions weak. The following are some examples of the errors in reasoning that can produce faulty arguments:

> **Evading the issue** occurs when the real argument is ignored, and something that is irrelevant to the main argument is attacked instead.

An *ad hominem* argument attacks the person making the argument rather than the issues involved.

A *non sequitur* results when the evidence does not justify the conclusion.

A **circular argument** occurs when a debatable point is advanced as true. (This is also called **begging the question**.)

A **false dilemma** sets up the premise that there are only two alternatives when, in fact, several may exist.

The error of *post hoc, ergo propter hoc* ("after this, therefore, because of this") occurs when the case is made that one thing causes something else when, in reality, the fact that one thing followed another is simply a coincidence.

A **hasty generalization** results when too little evidence is offered or the evidence is not representative.

A **false analogy** is produced when things are alike in some ways but are dissimilar in more fundamental ways, making a valid comparison impossible. (Note: the use of analogy, in which two different things are compared, can be a useful tool in argumentation. As implied above, however, you need to be careful that the dissimilarities between the two things being compared don't negate the validity of the comparison.)

Emotional Appeals

Emotional appeals can be a powerful means of persuasion. If you study examples of propaganda, for instance, you will see that propagandists make liberal use of emotional appeals. Common techniques used by communicators who want their audience to respond emotionally rather than critically include: making a connection to an authority figure (notice how American politicians love to refer to Thomas Jefferson, Franklin Roosevelt or John F. Kennedy); calling for people to support an idea or course of action because everyone else is doing it (called "band-wagoning"); or using stereotypes (especially if one group of people are labeled as the source of common trouble).

Issues that you deal with may have an emotional side to them, and it might be quite proper to identify that emotional component. ("The west wing of the factory should not be razed because it housed the earliest experiments in widget production, and thus is an important part of our company history.") But you have a responsibility to combine emotional appeals with concrete pieces of data that are woven together in a logical, rational manner. This will create the strongest argument possible, and one which will be able to withstand an equally well-reasoned critique.

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