• Conservative Christians are intolerant.

• Men have trouble expressing their feelings.

Each of these statements could be true at times. That is, we could find examples

of poor, unmarried women who have had abortions; corrupt politicians; and

so on. Yet, in each case, we could also find examples that do not fit the assertion.

That is what makes these statements overgeneralizations. (The fact that your

overgeneralizations do not take the most extreme form—stereotypes, which we

discussed in Chapter 3—should not make you complacent about correcting

them. They still mar your arguments, usually significantly.)

To find overgeneralizations in your arguments, be alert to any idea in which

*all*or *none* is stated or *implied*. (That is the case in each of the preceding four

examples.) Occasionally, you will find a situation in which *all* or *none* is justified,

but in the great majority of cases, critical evaluation will show that it is not. To

correct overgeneralizations, decide what level of generalization is appropriate,

and modify your statement accordingly. For example, in the four cases discussed,

you would consider these possibilities:

Some

. . . women who have abortions are

poor and unmarried.

Many

Most

All

A specific number of

Some

. . . politicians are corrupt.

Many

Most

All

Certain types of

Some

. . . conservative Christians are intolerant.

Many

Most

All

In certain cultural conditions

Some

. . . men are incapable of

expressing their feelings.

Many

Most

All

In certain cultural conditions

**Oversimplifying**

There is nothing wrong with simplifying a complex reality to understand it better

or to communicate it more clearly to others. Teachers simplify all the time, especially

in grade school. Simplification is only a problem when it goes too far: when

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it goes beyond making complex matters clear and begins to distort them. At that

point, it ceases to represent reality and misrepresents it. Such oversimplification

is often found in reasoning about causes and effects. Here are three examples of

this error.

• The cause of the economic recession in the early 1980s was excessive

welfare spending.

• The American Nazi Party has a beneficial effect on the intellectual life of

the country. It reminds people of the constitutional rights of free speech

and assembly.

• A return to public executions, shown on prime-time television, would make

crime less glamorous and thus, in time, make us a less brutal, more civilized

society.

These statements contain an element of truth (many authorities would say a very

small element). Yet they do not fairly or accurately represent the reality

described. They focus on one cause or effect as if it were the only one. In fact,

there are others, some of them significant.

To find oversimplifications in your arguments, ask what important aspects

of the issue your statements ignore. To correct oversimplifications, decide what

expression of the matter best reflects the reality without distorting it.

**Double Standard**

Applying a double standard means judging the same action or point of view differently

depending on who performs the action or holds the point of view. It can

often be recognized by the use of sharply contrasting terms of description or classification.

Thus we may attack a government assistance program as a welfare

handout if the money goes to people we don’t know or don’t identify with but

defend it as a necessary subsidy if it goes to our friends. Similarly, if one country

crosses another’s border with a military force, we may approve the action as a

“securing of borders” or condemn it as “naked aggression,” depending on our

feelings toward the countries involved.

Be careful not to confuse the double standard with the legitimate judgment

of cases according to their circumstances. It is never an error to acknowledge real

differences. Accordingly, if you find you have judged a particular case differently

from other cases of the same kind, look closely at the circumstances. If they warrant

different judgments, you have not been guilty of applying a double standard.

However, if they do not warrant different judgments—if your reasoning shows

partiality toward one side—you have committed the error and should revise your

judgment to make it fair.

**Shifting the Burden of Proof**

This error consists of making an assertion and then demanding that the opposition

prove it false. This is an unreasonable demand. The person making the assertion

has the burden of supporting it. Though the opposing side may accept the

challenge of disproving it, it has no obligation to do so. Suppose, for example,

you said to a friend, “Mermaids must exist,” your friend disputed you, and you

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\*For a brief introduction to the basic principles of formal logic, see the appendix, “The

Fundamentals of Logic.”

responded, “Unless you can disprove their existence, I am justified in believing in

them.” You have shifted the burden of proof. Having made the assertion about

mermaids, you have the obligation to support it. To overcome this error in your

arguments, identify all the assertions you have made but not supported, and provide

adequate support for them. If you find you cannot support an assertion,

withdraw it.

**Irrational Appeal**

This error bases your position on an appeal that is unreasonable. The most common

forms of irrational appeal are the appeal to *common practice* (“Everyone

does it”), the appeal to *tradition* (“We mustn’t change what is long established”),

the appeal to *fear* (“Awful things could happen”), the appeal to *moderation*

(“Let’s not offend anyone”), and the appeal to *authority* (“We have no business

questioning the experts”). Of course, there is nothing necessarily wrong with

defending common practice or tradition, warning about dangers, urging moderation,

or supporting the views of experts. It is only when these appeals are used as

*a substitute* for careful reasoning—when they aim at an audience’s emotions

rather than their minds—that they are misused. To correct irrational appeals,

refocus your argument on the specific merits of your ideas.

■

ERRORS AFFECTING VALIDITY

Errors affecting validity do not occur within any individual premise or within

the conclusion. They occur instead in the reasoning by which the conclusion is

drawn from the premises. Therefore, to determine whether an argument is valid

or invalid, we must examine the relationship between the premises and the conclusion.

The logical principles governing validity are the substance of *formal*

*logic*, the area of logic concerned with the various forms of argument. Since a

detailed treatment of formal logic is beyond the scope of this book,\* we will

focus on an essential error that commonly occurs in controversial issues: the *illegitimate*

*conclusion*.

An illegitimate conclusion is one that does not follow logically from the

premises preceding it. Before examining an illegitimate conclusion, let’s first look

at a *legitimate* one.

Anything that shortens people’s attention span harms their concentration.

Television commercials shorten people’s attention span. Therefore,

television commercials harm people’s concentration.

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\*\*Though the premise says *people*, rather than *all people*, the sense of *all* is clearly conveyed.

Usually, when no qualifying word or phrase—such as *some, many, the citizens of Peoria*—is present,

we presume that the universal *all* is intended.

This conclusion is legitimate because if anything that shortens people’s attention

span harms concentration, and if television commercials do shorten that span,

they therefore must harm people’s concentration. Commercials, after all, are a

thing, so they fit in the *anything* specified in the first premise. When we are

checking for the validity of the reasoning, remember, we are not checking for the

truth of the premises or conclusion. That concern is a separate matter. Thus even

a ludicrous argument could be technically valid. Here is an example.

Anything that gives people indigestion harms their concentration.

Television commercials give people indigestion. Therefore, television

commercials harm people’s concentration.

Let’s now look at some *illegitimate* conclusions and see what makes them so.

All people who take courses significantly above their level of competency

will surely fail. Samantha is taking a course well within her level of

competency. Therefore, Samantha will surely pass.

Even if it were true that all people who take courses well above their competency

level necessarily fail, this would not eliminate the possibility of other reasons for

failure, reasons that apply to the competent as well as the incompetent. In other

words, the first premise does not imply that *only* the incompetent will fail.

Samantha may be extraordinarily proficient and still fail because she cuts classes

and does not submit the required work.

Here is another example of an illegitimate conclusion.

People who care about the environment will support the clean air bill

now before Congress. Senator Boychik supports the clean air bill.

Therefore, Senator Boychik cares about the environment.

The first premise of this argument says that people—all people\*\*—who care

about the environment will support the bill. However, it does not say that no one

else will support the bill. Thus it leaves open the possibility that some who do not

care will support it, perhaps for political reasons. Which group Boychik belongs

to is unclear. Therefore, the conclusion is illegitimate.

Illegitimate conclusions also occur in hypothetical (if-then) reasoning. Of

course, not all hypothetical reasoning is faulty. Here is an example of a *valid*

hypothetical argument:

*If* a person uses a gun in the commission of a crime, *then* he should be

given an additional penalty. Simon used a gun in the commission of a

crime. *Therefore*, Simon should be given an additional penalty.

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The first premise sets forth the conditions under which the additional penalty

should be applied. The second presents a case that fits those conditions. The conclusion

that the penalty should apply in that case is legitimate.

Here, in contrast, is an *illegitimate* conclusion.

*If* a person uses a gun in the commission of a crime, *then* he should be

given an additional penalty. Simon was given an additional penalty for

his crime. *Therefore*, Simon used a gun in the commission of the crime.

Here the first premise sets forth one condition for an additional penalty. It does

not exclude the possibility of *other* conditions carrying additional penalties. For

this reason, we have no way of knowing whether Simon’s additional penalty was

for using a gun or for some other reason.

The following is another example of an *illegitimate* conclusion.

*If* a person has great wealth, *then* he can get elected. Governor Mindless

got elected. Therefore, Governor Mindless has great wealth.

The first premise of this argument specifies one way of getting elected. There

may be others, including endorsements from influential groups and skill in

telling people what they want to hear. Did Governor Mindless get elected in this

or in some other way? We can’t be sure from the information given, so the conclusion

is illegitimate.

Occasionally, an illegitimate conclusion in hypothetical arguments takes a

slightly different form: the reversal of conditions. The following argument illustrates

this.

*If* the death penalty is reinstated, *then* the crime rate will drop. *Therefore*,

if the rate of crime is reduced, the death penalty will be reinstated.

The error here is reversing what is not necessarily reversible. The clear implication

in the first premise is that there is a cause-and-effect relationship between the

reinstatement of the death penalty and a drop in the crime rate. To reverse that

relationship makes the effect the cause, and vice versa. Such a reversal does not

logically follow.

■

A SPECIAL PROBLEM: THE HIDDEN PREMISE

The expression of an argument in ordinary discussion or writing is not always

as precise as our examples. The sentence order may vary; the conclusion, for

example, may come first. In place of the word *therefore*, a variety of signal

words may be used. *So* and *it follows that* are two common substitutes.

Sometimes, no signal word is used. These variations make the evaluation of an

argument a little more time-consuming, but they pose no real difficulty. There

is, however, a variation that can cause real difficulty: the *hidden premise*. A

hidden premise is a premise implied but not stated. Here is an example of an

argument with a hidden premise. (Such an argument is known in logic as an

enthymeme.)

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There is nothing necessarily wrong with having a hidden premise. It is not an

error. In the preceding case, the hidden-premise argument is from the writing of

George Bernard Shaw. In either of the forms shown, the argument is perfectly valid.

The only problem with hidden premises is that they obscure the reasoning behind

the argument and make evaluation difficult. Accordingly, whenever a premise is

hidden, it should be identified and expressed before the argument is evaluated.

Here are several more examples of hidden-premise arguments. Note how

much easier it is to grasp the reasoning when the hidden premise is expressed.

**Premise Hidden P r e m i s e E x p r e s s e d**

Prostitution is immoral, so it

should be illegal.

Everything immoral should be

illegal. Prostitution is immoral.

Therefore, it should be illegal.

Newspapers are a threat to

democracy because they have

too much power.

All agencies that have too much

power are a threat to democracy.

Newspapers have too much power.

Therefore, newspapers are a threat

to democracy.

If Brewster Bland is a good family

man, he’ll make a good senator.

If a person is a good family man,

he’ll make a good senator. Brewster

Bland is a good family man.

Therefore, Brewster Bland will

make a good senator.

AIDS is a costly and, at this time,

terminal disease. Therefore, health

insurance companies should be

able to suspend coverage when

people contract AIDS.

Insurance companies should not have

to provide coverage for costly terminal

diseases. AIDS is a costly and, at this

time, terminal disease. Therefore,

health insurance companies should be

able to suspend coverage when people

contract AIDS.

Many celebrities believe that a

35,000-year-old spirit entity

known as Ramtha speaks through

channeler J. Z. Knight. Therefore,

this belief is worthy of respect.

If many celebrities believe

something, it is by that fact worthy

of respect. Many celebrities believe

that a 35,000-year-old spirit entity

known as Ramtha speaks through

channeler J. Z. Knight. Therefore,

this belief is worthy of respect.

**Argument with**

**Premise Hidden**

**Same Argument,**

**P r e m i s e E x p r e s s e d**

Liberty means responsibility. Liberty means responsibility.

That is why most men dread it. Most men dread responsibility.

Therefore, most men dread liberty.

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■

RECOGNIZING COMPLEX ARGUMENTS

Not all arguments can be expressed in two premises and one conclusion. Many

are complex, involving a network of premises and conclusions. Moreover, some

of these premises and conclusions may, like the hidden premises we have discussed,

be unexpressed. Consider, for example, this argument.

The communications and entertainment media have more influence on

young people than parents and teachers do, so the media are more

responsible for teenage pregnancy, drug and alcohol abuse, violence,

and academic deficiency.

At first glance, only one premise may seem to be missing from this argument.

Actually, it is a complex argument, and more is missing. Here is how it would be

expressed if nothing were omitted.

The agency that has the greatest influence on young people’s attitudes

and values bears the greatest responsibility for the behavior caused by

those attitudes and values. Although parents and teachers used to have

the greatest influence on young people’s attitudes and values, the

media now have a greater influence. In addition, the messages disseminated

by the media generally oppose the lessons of home and school.

Typical media messages—that each person creates his or her own

morality, that self is more important than others, that restraint of one’s

urges is harmful, and that feelings are a more reliable guide than

thought—tend to lead to impulsiveness and the demand for instant

gratification and to create or aggravate such problems as teenage pregnancy,

drug and alcohol abuse, violence, and academic deficiency.

Therefore, the communications and entertainment media bear the

greatest responsibility for these problems.

Here are two more examples of complex arguments. In each case, the argument

is first expressed in the abbreviated form often used in everyday conversation and

then in its complete logical form.

1. *Abbreviated:* The government wastes billions of tax dollars, so I’m not

obligated to report all my income.

*Complete:* The government wastes billions of tax dollars. Wasting tax dollars

increases every individual’s tax burden unnecessarily. I am a taxpayer,

so the government is increasing my tax burden unnecessarily. Furthermore,

when the government increases the taxpayers’ tax burden unnecessarily, the

taxpayers are not obligated to report all their income. Therefore, I’m not

obligated to report all my income.

2. *Abbreviated:* People who lack control over their sexual urges are a threat to

society, so homosexuals should be banned from the teaching profession.

*Complete:* People who lack control over their sexual urges are a threat to

society. Homosexuals lack control over their sexual urges. Therefore,

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homosexuals are a threat to society. Furthermore, people who are a threat

to society should be banned from the teaching profession. Therefore, homosexuals

should be banned from the teaching profession.

Recognizing that an argument is complex and, where necessary, expressing it

more completely is a necessary step in argument analysis. But such recognition

and expression do not complete the analysis. In other words, in each of our three

examples, we now know what the complete argument is, but we do not yet know

whether it is sound—that is, whether its premises are true and the reasoning from

premises to conclusion is valid.

■

STEPS IN EVALUATING AN ARGUMENT

The following four steps are an efficient way to apply what you learned in this

chapter—in other words, to evaluate your argument and overcome any errors in

validity or truth that it may contain.

1. State your argument fully, as clearly as you can. Be sure to identify any hidden

premises and, if the argument is complex, to express all parts of it.

2. Examine each part of your argument for errors affecting truth. (To be sure

this examination is not perfunctory, play devil’s advocate and *challenge* the

argument, asking pointed questions about it, taking nothing for granted.)

Note any instances of either/or thinking, avoiding the issue, overgeneralizing,

oversimplifying, double standard, shifting the burden of proof, or irrational

appeal. In addition, check to be sure that the argument reflects the pro and

con arguments and is relevant to the scenarios you produced earlier. (See

Chapter 9.)

3. Examine your argument for validity errors; that is, consider the reasoning

that links conclusions to premises. Determine whether your conclusion is

legitimate or illegitimate.

4. If you find one or more errors, revise your argument to eliminate them. The

changes you will have to make in your argument will depend on the kinds

of errors you find. Sometimes, only minor revision is called for—the adding

of a simple qualification, for example, or the substitution of a rational

appeal for an irrational one. Occasionally, however, the change required is

more dramatic. You may, for example, find your argument so flawed that

the only appropriate action is to abandon it altogether and embrace a different

argument. On those occasions, you may be tempted to *pretend* your

argument is sound and hope no one will notice the errors. Resist that hope.

It is foolish as well as dishonest to invest time in refining a view that you

know is unsound.

To illustrate how you would follow these steps, we will now examine two

issues.

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†Such a formal, logical (*a + b = c*) statement of your argument is essential when you are evaluating

your reasoning. However, it is seldom appropriate for a central-idea statement in a piece of

writing. In this case, your central-idea statement might be “Because consumers pay for television

programming and commercials, they are entitled to make demands and threaten boycotts.”

■

THE CASE OF PARENTS PROTESTING TV PROGRAMS

You have read a number of articles lately about protests over television commercials

and programming. The protesters are mostly parents of school-aged children.

They have spoken out either individually or through organizations they

belong to, expressing concern that the values taught by school and home are

being undermined by television. Specific complaints include the emphasis on sex

and violence in television programming, the appeal to self-indulgence and instant

gratification in commercials, and the promotion of “if it feels good, do it” in

both programming and commercials. The protestors are urging concerned citizens

to write to the companies that sponsor programs and threaten to boycott

their products unless these offenses are eliminated.

Let’s say you identify the main issue here as “Are parents justified in making

such demands on companies?” After considering the matter and producing a

number of ideas, you decide that the best answer is “No, they are not justified”

and state your argument as follows:

Only those who pay for television programming and advertisements are

entitled to have a say about them. The companies alone pay. Therefore,

the companies alone are entitled to have a say.

You examine your argument for validity errors and find that it contains none.

Then you examine it for errors of truth or relevance. Playing devil’s advocate, you

ask, “*Do* the companies alone pay?” “How exactly is payment handled?” Not

being sure, you ask a professor of business and learn that the sponsorship of television

programs and other advertising are part of the overall product budget. You

also learn that these costs, along with other costs of raw materials, manufacturing,

packaging, warehousing, and delivery, are reflected in the price of the product.

“Wait a minute,” you reason. “If programming and other advertising costs

are reflected in the price of the product, that means consumers are paying for

every television show and every commercial. And if that’s the case, parents (and

other consumers) *are* entitled to have a say, make demands, and threaten boycotts.”

And so you revise your argument accordingly:

Those who pay for television programming and commercials are entitled

to have a say about them. Consumers pay. Therefore, consumers

are entitled to have a say.†

In elaborating this argument you would, of course, address the important

questions that flow from it, including this one: What guidelines does fairness suggest

consumers follow in making such requests? Your answers to this and related

questions should also be evaluated for reasonableness.

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■

THE CASE OF THE MENTALLY IMPAIRED GIRLS

This case is one we encountered earlier, in Application 2.6c. The parents of three

girls with severe mental impairments, you may remember, brought court action

seeking the legal right to make the decision to sterilize the girls. The larger issue

here continues to be controversial. Let’s say you express it as follows: “Should

anyone have the right to make such a significant decision for another person?”

After investigating the issue and producing a number of ideas, including the

major pro and con arguments and several relevant scenarios, you state your argument

thus:

Those who have the child’s interest at heart can be expected to judge

wisely if they are properly informed. Most parents or guardians have the

child’s interest at heart. Therefore, most parents or guardians can be

expected to judge wisely if they are properly informed. Furthermore,

knowing whether the child will ever be able to meet the responsibilities

of parenthood constitutes being properly informed. A qualified doctor

can tell parents or guardians whether the child will ever be able to meet

the responsibilities of parenthood. Therefore, a qualified doctor can

properly inform parents.

You examine your argument (a complex one that cannot be expressed adequately

in two premises and a conclusion) and decide that though it is valid and

essentially true, it raises a serious question that should not be ignored. That question

is “Would such a system provide sufficient protection for the child?” You

address it by imagining a variety of situations that might easily arise, notably the

following ones:

1. The parents are obsessed with the fear that their child will bring shame on

them. They pressure the doctor to certify that their child will never be able

to fulfill parental responsibilities even though that is not really the case. The

doctor, though qualified to make an appropriate diagnosis, is unscrupulous

and therefore willing to certify anything for a fee.

2. The parents are responsible and the doctor is not only qualified but above

reproach morally. The decision is made to sterilize the child at age four.

Several years later, medical science finds a way to overcome the child’s mental

impairment. The child becomes normal, but the sterilization cannot be

reversed.

To prevent the first situation from occurring, you revise your argument to

specify that certification be made by a board of physicians rather than a single

physician. You might also decide the composition of the board. (All surgeons? One

or more psychologists? An authority on mental retardation?) Unfortunately, there

is no way to ensure that the second situation will not occur, but you decide there is

a way to lessen the risk considerably. To that end you add to your argument the

stipulation that no sterilization should be permitted before the onset of puberty.

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Both this case and the case of parents protesting TV programming are

offered to illustrate the *process* of evaluating your positions on issues rather

than to promote the arguments contained in them. What is important is not that

you agree with these arguments but that you recognize the value of evaluating

your own.