

be true, for the reason that the truth always works (even though at times what appears to be working may or may not be true).

**Loose (or Mere) Consistency.** Correct, but not necessarily related, statements are said to be consistent if they do not contradict one another. (Similarly, an individual is consistent in so far as he does not contradict himself.) Thus, consistency is attributed to the following statements because none of them negates any of the others: "Snow is white." "A ton of lead is heavy." "Yesterday the temperature dropped to twenty degrees." "George Washington was the first president of the United States."

The inadequacy of loose consistency as a criterion of truth is readily detected because the consistent statements are disconnected and lack cohesiveness or integration. The value of proof lies in its relationships which integrate isolated data into a coherent whole.

**Rigorous Consistency.** The criterion of rigorous consistency refers to connections between statements such that one proposition follows necessarily from another. Mathematical and formal logical reasoning exemplify this criterion. Examples are: "If all generals in the U.S. Army are also soldiers, and if John Doe is a general in the U.S. Army, then it follows necessarily that John Doe is a soldier." "If all *A*'s are *B*'s and all *B*'s are *C*'s, then all *A*'s are *C*'s."

The value of rigorous consistency is to be granted; however, the areas to which this form of reasoning is applicable are limited. Furthermore, the premises are taken for granted; that is to say, to establish their accuracy requires another criterion of truth.

A further objection states that despite rigorous consistency, a set of philosophical conclusions may display lack of coherence. Moreover, a system of philosophy may be rigorously consistent with only those facts which it has included for consideration, whereas an adequate criterion must take all facts into consideration, whether or not the new data are detrimental to the system in question.

**Coherence.** As a criterion of truth, coherence refers to a systematic consistent explanation of all the facts of experience. To be coherent, a person must arrange all pertinent facts so that

they will be in proper relationship to one another consistently and cohesively as parts of an integrated whole. Whatever facts are brought to light must be explained, must somehow be fitted into the system as a relevant or integral part. That explanation which most fulfills the requirements of coherence may be regarded as adequately verified.

Of all the criteria treated, coherence meets the demands of a standard of verification or test of truth most adequately. It includes reason, facts, system, integration, relationships, consistency. Its obvious limitation lies not in the criterion of coherence, but in man's limitations or his inability to obtain *all* facts of experience. Only an omniscient mind possesses all facts of experience; consequently, man must be content to deal with all facts at his disposal at the present time, allowing that point to be regarded as proved true which is the most coherent under prevailing circumstances. That person, school of thought, or idea which is supported in a coherent manner by most of the facts must be accepted as verified.

One who objects to coherence as a criterion places himself in a delicate position logically, for he thus implies a preference for incoherence, which is absurd; furthermore, to attack coherence necessitates the use of a criterion that is either coherent and rational, or incoherent and irrational; to appeal to irrationality is absurd, thus obligating a person to accept coherence as his criterion of truth.

Finally, a moot question arises as to whether or not there could be several equally coherent systems, each containing all the facts of human experience.

### *MATERIAL FALLACIES OF REASONING*

A second major realm of logic treats material fallacies, that is, erroneous ways of reasoning about facts. Material fallacies are numerous, deceptive, and elusive—so elusive that a person untrained in detecting them can easily be misled into accepting them as valid. Not only logicians but also careful scientists and other competent scholars are especially adept at detecting and avoiding fallacies; their knowledge of logic is particularly re-

finer. In fact, the necessity of reasoning without committing error is an obvious asset for all persons, regardless of their walk in life.

The fallacies which concern us here are all properly classified as *material* (that is, the error lies in the factual content of the argument rather than in the structure of it), yet it may prove helpful to subdivide them in some manner. Accordingly, the following subclassification will be used: (1) *linguistic fallacies*, or those which involve the abuse or misuse of language, a play on words; (2) *fallacies of irrelevant evidence*, or arguments which miss the central point at issue and rely principally upon emotions, feelings, ignorance, etc., to defend a thesis (some logicians consider these a manner of debate, a type of argument, rather than fallacies); (3) *miscellaneous fallacies* which belong to a number of other classifications but which do not readily lend themselves to further subdivision.

Occasionally, fallacies will be found to overlap, which is understandable, particularly when one realizes that they belong to interrelated families. Furthermore, an argument may contain a number of fallacies, but not all will be equally crucial in destroying the validity of an argument. One must detect the decisive error, distinguishing it from the rest, yet be alert to the possibility of additional fallacies present in the argument.

**Linguistic Fallacies.** These fallacies include those of emotive language; ambiguity; equivocation; amphibology; speech; composition; division; and vicious abstraction.

**FALLACY OF EMOTIVE LANGUAGE.** Often words used in arguments either lack definite meaning or have as their sole purpose the arousal of unreasoned feeling; when an argument depends upon the stimulation of emotions rather than conveying logical information, the error committed is known as the fallacy of emotive language.

For example, in the United States, the purpose of labeling someone a *Communist* is not usually to convey the thought that he believes in the "common ownership of the means of production," but to insult him, to cast a derogatory aspersion upon him, to refer to him with contempt.

**FALLACY OF AMBIGUITY.** Occasionally a person takes refuge in

language; that is, he hides behind words which lack precise meaning, or words whose definition is unknown either to one or to both parties in a discussion. The fallacy of ambiguity refers to the use of terms which are ill-defined, vague in meaning, signifying a variety of ideas, none of which can be made clear or precise either by definition of the words or by the context. Some logicians regard all linguistic fallacies as aspects of the error of ambiguity.

**FALLACY OF EQUIVOCATION.** The use of a term in more than one sense, while the impression is given that it is being used to express only one and the same meaning throughout an argument, is known as the fallacy of equivocation. A word used in more than one sense should be interpreted as if it were actually two or more words; the fallacy results from the incorrect assumption that the word is used throughout a given discussion to convey a single connotation.

For example, in the following argument, the word "adjective" is responsible for the fallacy of equivocation:

"The United States is large. Large is an adjective. Therefore, the United States is an adjective."

The misused word in the example below is "radioactive":

"It is dangerous for people to touch that which is radioactive. The word used here is 'radioactive.' Therefore, people should not touch the word used here."

**FALLACY OF AMPHIBOLOGY.** The use of a statement which permits of two interpretations is known as the fallacy of amphibology. Amphibology differs from equivocation in two important respects: (1) amphibology pertains to the entire argument, whereas equivocation is limited to single terms; (2) the entire argument is susceptible to a two-fold interpretation due to its structure, not to any misuse on the part of the debater. As in the following examples, amphibologies are often attributable to the use of misplaced modifiers:

"The duke yet lives that Henry shall depose." (In this sentence from Shakespeare's *Henry VI*, who is deposing whom? Henry, the duke; or the duke, Henry?)

"Wanted to sell: A highchair for a baby with a broken leg." (In this classified advertisement, which is broken, the chair or the child's leg?)

"Clean and decent boxing every night except Sunday." (According to this sign at a boxing arena, what happens on Sundays—no boxing whatever, or dirty and indecent boxing?)

**FIGURE OF SPEECH FALLACY.** Failure to distinguish between variant meanings of sentence elements, such as suffixes, may give rise to the figure of speech fallacy. This fallacy is more common in certain foreign languages (Greek is a good example) than it is in English. (Aristotle, initially responsible for identifying this fallacy, encountered it in his native Greek.) John Stuart Mill, one of the most careful logicians of the nineteenth century was, nevertheless, guilty of the figure of speech fallacy in the following statements: "The only proof capable of being given that an object is visible, is that people actually see it. The only proof that a sound is audible, is that people hear it; and so of the other sources of our experience. In like manner, I apprehend, the sole evidence it is possible to produce that anything is desirable, is that people do actually desire it."<sup>1</sup>

Mill's error lies in assuming that the suffix *ble* conveys the same meaning in each instance. It is true that "visible" means "can be seen" and "audible" means "can be heard"; however, "desirable" does *not* mean "can be desired" but merely "ought to be desired." To say that the removal of a tumor is desirable does not signify that the individual will actually desire it, but that it ought to be desired, whereas to say that thunder is audible means that it can be heard and under favorable circumstances actually is heard.

**FALLACY OF COMPOSITION.** The false assumption that a statement about an integral part of something necessarily holds true for the composite whole is known as the fallacy of composition. This error refers to statements about things considered as parts of a whole, not to statements about things considered as separate entities. The fallacy consists of reasoning incorrectly from facts about members of a class to conclusions about the entire class. Often the whole is a *Gestalt*, greater than the sum of its parts, an organic whole which does not have a one-to-one relationship to its parts. (Some logicians, such as Jevons, consider the fallacy

<sup>1</sup> John Stuart Mill, *Utilitarianism* (London, 1863; 12th ed., 1895).

of composition to be a special form of equivocation, involving confusion of an isolated part with the collective whole.)

Note these examples of the fallacy of composition: "A Hollywood film production composed exclusively of top stars would be a better show than one composed of a few star actors." (The error lies in neglecting to note the need for a good supporting cast who have not attained stardom.) "An orchestra of the world's finest soloists would be the best band in the world." (An orchestra is a *team* of musicians, each lending proper support to the whole, not a mere assembly of individual prima donnas, each playing solos independently of the group effort.)

**FALLACY OF DIVISION.** The converse of the fallacy of composition is division, erroneous reasoning that what holds true of a composite whole necessarily is true for each component part considered separately. The whole, if it is an organic whole, a *Gestalt*, cannot be divided as a mathematical whole; you may divide a hundred into twos, but you cannot divide a flower similarly.

Note the following examples of this fallacy: "The New York Yankees were the world's champion baseball team last year; therefore, they must have had the world's best second baseman." (The second baseman may have been their weakest link; they may have become champions despite this weakness.) "California grows the world's best grapes; therefore, the Californian grape which I am about to eat must be one of the best in the world." (It may be a poor specimen or rotten grape.)

**FALLACY OF VICIOUS ABSTRACTION.** The removal of a statement from its context, thereby changing the meaning of an argument, is known as the fallacy of vicious abstraction. Many statements may easily and critically be altered simply by dropping the context; this emasculates the statement and distorts its meaning. Below are four examples of this fallacy, each followed by a corrected statement:

"St. Paul said, 'Money is the root of all evil.'" ("The *love* of money is the root of all evil.") "Ralph Waldo Emerson said: 'Consistency is the hobgoblin of little minds.'" ("Foolish consistency is the hobgoblin of little minds.") "Alexander Pope said, 'Learning is a dangerous thing.'" ("A *little* learning is a

dangerous thing; drink deep, or taste not the Pierian spring. There shallow draughts intoxicate the brain, and drinking largely sobers us again.") "Francis Bacon said, 'Philosophy inclineth man's mind to atheism.'" ("A little philosophy inclineth man's mind to atheism, but depth in philosophy bringeth men's minds about to religion.")

**Fallacies of Irrelevant Evidence.** Seven classes of these fallacies are listed below.

**FALLACY OF IRRELEVANCE.** To prove or disprove the wrong point is to commit the fallacy of *irrelevance*, often referred to as *irrelevant conclusion* or *ignoratio elenchi*. The fallacy of irrelevance can be most deceptive, for the presentation may seem very cogent, obscuring the fact that a question different from the one under consideration is being discussed. Thus, instead of proving point *A*, which is at issue, the speaker proves unrelated point *B*; or instead of disproving point *C*, he disproves point *D*. This error is made by attempting to prove something that has not even been denied or by attacking something that has not been asserted. In another form of this fallacy, the individual assumes that he has proved his own point by disproving those of his opponent. In a murder trial, for example, a prosecutor is guilty of the fallacy of irrelevance if, instead of proving the defendant guilty of murder, he proves him to be guilty of other crimes.

**ARGUMENTUM AD IGNORANTIAM (THE APPEAL TO IGNORANCE).** The fallacy of the appeal to ignorance takes several forms. In one form, it is assumed that what might possibly be true is actually true. In a second form, it is assumed that a given thesis is correct merely because no one can prove it to be incorrect. (Of course, the burden of proof should fall upon the individual who advances the thesis, not upon his opponent.) In a third form, it is assumed that an opponent's entire argument can be destroyed merely by disproving a nonessential part of the argument. The following are examples of the fallacy of the appeal to ignorance: "Psychic phenomena are facts, for no one can absolutely disprove them." "Flying saucers do exist, for no one really knows for sure that they don't."

**ARGUMENTUM AD MISERICORDIAM (THE APPEAL TO PITY).** Instead of defending an argument on its merits, this fallacy evades

the pertinent issues and makes a purely emotional appeal. Too often a person who is unable to cite relevant facts in support of his claims may resort to a plea for sympathy. (An attorney may be tempted to do this when he defends his client before a jury.) Nevertheless, some logicians insist that in certain instances the *argumentum ad misericordiam* is a legitimate argument.

The fallacy of the appeal to pity is illustrated in the following statements: "Teacher, I did not do my home assignment because my baby sister cried all night." (This might in some cases be accepted as a justifiable excuse.) "Teacher, please change my grade from C to B; if you do not, then I shall miss being on the honor roll, and consequently fail to attain scholarship assistance which I desperately need."

**ARGUMENTUM AD VERECUNDIAM (THE APPEAL TO PRESTIGE).** The appeal to respect or prestige (instead of to pertinent data) is known as *argumentum ad verecundiam*. This fallacy equates prestige with evidence. The attempt is made to gain support for an idea or proposal by associating it with highly respected individuals or hallowed institutions. (It is true that deserving men and institutions should be esteemed, but their approval of a thesis must not be used in lieu of evidence. (The same type of incorrect reasoning may encourage excessive faith in authority, discussed as a criterion of truth on p. 8.) Note the dubious appeals in the following arguments: "I have a wonderful idea which you should accept because I learned it from a seminar at Oxford University." "Son, listen to what I have to say, and please do not contradict, but respect your elders."

**ARGUMENTUM AD BACULUM (THE APPEAL TO FORCE).** An appeal to force (whether the coercion be overt or disguised) as a substitute for pertinent logic is known as *argumentum ad baculum* (argument by means of a club), the idea being that a club held over an opponent's head will force him to accept a new point of view.

This fallacy is evident in the following statement: "Mr. Jones, we like only intelligent men in our organization; if you do not want to lose your job, then I suggest that you show a little intelligence by taking part in civic activities—e.g., by supporting my brother's campaign for election to the school committee." In an-

other example, when a boy tells his father, "Dad, I don't believe in altruism," his father replies, "You had better, or I will not give you a present for your birthday."

**ARGUMENTUM AD HOMINEM (APPEAL TO PERSONAL RIDICULE).** The fallacy of shifting an argument from the point being discussed to the personality of an opponent is known as *argumentum ad hominem*. Instead of dealing with an opponent's thesis on its merits, the fallacious argument attacks his reputation and moral character, or refers to his low intelligence, inferior social position, lack of education, or similar personal shortcomings. (The fallacy is illustrated by statements such as: "Don't stoop to debate with this man, for he is nothing but an ignorant savage." "That candidate would never make a good president, for he is divorced from his wife." "I don't care what the proof indicates. Would you accept evidence presented by this low contemptible heathen?")

**ARGUMENTUM AD POPULUM (APPEAL TO THE MASSES).** Arguments which depart from the question under discussion by making an appeal to the feelings and prejudices of the multitude are known as *ad populum* fallacies. These arguments often take the affirmative form of an appeal to patriotism, or they may consist of negative appeals to superiority feelings and racial or religious prejudices. Hitler's Nazis and Mussolini's Fascists used these fallacies as a basic technique of their propaganda, coupling the appeal with promises of wealth and power for faithful adherents.

**Miscellaneous Material Fallacies.** In addition to the two preceding classes of fallacies, there are a number of miscellaneous fallacies not readily subject to classification, of which the following are commonly encountered.

**FALLACY OF ACCIDENT (OR DICTO SIMPLICITER).** This fallacy attempts to apply a general rule to special cases which are exceptions to the rule, that is, to make universal statements about matters to which the rule does not always apply. It is an error to ignore the fact that most rules permit of exceptions. Furthermore, a rule may be valid only if certain conditions prevail, and different conditions may make the rule inapplicable to specific cases. This fallacy is illustrated by statements, such as the following: "Theft is a crime. Since the Spartan nation permitted stealing,

it must have consisted entirely of criminals." (Theft is a crime only in those nations in which it is prohibited by law; wherever not prohibited, it is of course legally permissible, as in ancient Sparta. True, nations generally regard theft as criminal, but to apply this common view to an exception, as in the case of Sparta, is to commit the fallacy of accident.)

**CONVERSE FALLACY OF ACCIDENT.** This fallacy, also called the fallacy of *selected instances* or the fallacy of *hasty generalization*, consists of an attempt to establish a generalization (rule or scientific law) by the simple enumeration of instances without obtaining a representative number of particular instances. In other words, a conclusion is derived before all the particular instances have been taken into consideration. Examples of this fallacy follow: "All geniuses are odd people. I know, because the first five geniuses I interviewed were strangely peculiar." (The error lies in failing to obtain a fair or representative sampling of geniuses.) "Professors are absentminded." (Obviously, this trait displayed by a few professors must not be attributed to the entire profession.)

**FALSE CAUSE (POST HOC).** The fallacy of *false cause*, or *post hoc*, consists of reasoning from mere sequence to consequence, that is, from what merely happened in sequence to the assumption of a causal connection. The fact that *A* precedes *B*, does not necessarily make *A* the cause of *B*. The basic error is that of inferring a causal relationship without sufficient grounds; for this reason the fallacy is often referred to as that of *post hoc ergo propter hoc* (after this and therefore in consequence of this), an expression which itself explains the nature of the error. Note the following examples: "Twice in succession John raised his hand, and lightning flashed; therefore, the raising of John's hand causes lightning." (It was of course a coincidence that lightning occurred simultaneously with John's action.) "Mary said, 'When I remember to knock on wood, then I never become ill; therefore, knocking on wood prevents illness.'" "

**NON SEQUITUR (IT DOES NOT FOLLOW)—or Fallacy of the Consequent.** A *non sequitur* consists of an acceptance of a conclusion which does not follow logically from given premises or from any antecedent statements. A *non sequitur* argument always exhibits

this lack of a logical connection. The difference between the *post hoc* and the *non sequitur* fallacies is that, whereas the *post hoc* fallacy is due to lack of a causal connection, in the *non sequitur* fallacy, the error is due to lack of a logical connection. A *non sequitur* argument should also be distinguished from an irrelevant inference, in which the statement being made pertains to a question other than the one up for discussion. In a *non sequitur* argument the statements may all be relevant, but the relationships posited are logically disconnected. Examples of non sequitur statements are: "Trees are green; therefore human beings enjoy spinach." "A high I.Q. is the sign of an intelligent person; therefore beautiful girls have a preference for the acting profession." "If it takes a man twenty minutes to walk a mile, women should be able to live longer than men."

**COMPOUND QUESTIONS.** This fallacy is also known as the fallacy of *multiple questions*, or of *poisoning the wells*. The error consists of combining several questions in such a manner as to preclude all opposing arguments, thus placing one's opponent in a self-incriminating position. We can be misled into assuming that a simple, single question has been asked, whereas the wording of the question implies that prior questions have been raised and correctly answered as a basis for the question under consideration. Note the implied assumptions in the following questions: "Why did you torture this innocent child?" "Where did you hide the knife after you committed the murder?" "Have you stopped beating your wife?" "How do you account for your stupidity?" "Why am I always right, while you are always wrong?" "Why did you cheat your best friend?" (Some unethical attorneys have been known to use such misleading queries deliberately to trap a witness in a courtroom trial into making contradictory statements or to confuse him during cross-examination.)

**PETITIO PRINCIPII (BEGGING THE QUESTION).** Perhaps no other fallacy has so many different names as *petitio principii*, which consists of several forms, such as reasoning in a circle, failing to prove the initial thesis propounded, and using the original thesis as proof of itself. Common terms for this fallacy are *circular reasoning*, *circle in the proof*, and *arguing in a circle*. In order to prove that *A* is true, *B* is used as proof, but since *B* re-

quires support, *C* is used in defense of *B*, but *C* also requires proof and is substantiated by *A*, the proposition which was to be proved in the first place. Thus we see that what was to be proved in the first place is offered ultimately in defense of itself. Reasoning becomes completely circular, so that the initial question is begged.

"Gentlemen prefer blondes." "How do I know?" "A gentleman told me so." "How do you know he is a gentleman?" "I know for the simple reason that he prefers blondes." "Books on religion are better than books on atheism." "How do you know that?" "The experts all concur that religious books are better than atheistic ones." "Who are the experts?" "They are the ones who maintain that religious books are better than atheistic ones."

**TU QUOQUE (YOU YOURSELF DO IT).** Often an individual who is being criticized will defend his actions by accusing his critic of doing the same things himself. But what is sauce for the goose may not always be sauce for the gander. If the conditions are identical, this *tu quoque* argument can be used as an effective defense, but it is fallacious if the two situations being compared are not identical or if the actions of both parties are considered indefensible.

This fallacy is shown in discussions such as the following:

"If a heart specialist can lie to his patient, then I have the right to lie to my teacher." (The difference in motive is wrongly ignored.)

"Son, it is your bedtime. Go to bed." "But dad, you are staying up; therefore I should be allowed to do likewise." (The fact that the boy requires more sleep than his father does has been disregarded.)

**FALLACY OF MISPLACED AUTHORITY.** The discussion of authority as a source or criterion of truth suggested that any expert's opinion merits confidence and respect if it relates to his special field of competence. It is an error (the fallacy of misplaced authority) to cite an authority in matters foreign to his field of specialization. His opinion in matters beyond the scope of his area of acknowledged competence need be accorded no greater respect or attention than that of any other observer. The scientific opinions of a Newton or of an Einstein inspire confidence, but their political, religious, or artistic opinions must be judged on

their merits in the same way as those of ordinary citizens. It would be indeed illogical and risky to depend upon the world's foremost mathematician instead of experienced physicians for medical decisions and treatment.

**GENETIC ERROR.** The genetic error confuses the validity with the causes or origins of a thesis. It is a mistake to assume that an argument is necessarily false merely because it can be traced back to humble beginnings in superstition, ignorance, and magic. The source of an argument is irrelevant so far as logical proof or disproof is concerned. The statements that 5 and 5 are 10 and that carbon monoxide is a poison remain true and logically valid whether made by an insane person or by a normal individual.

**FALSE ANALOGY.** Arguments which resemble each other in logical reasoning are said to be analogous. If one argument is accepted as valid, then the others involving the same line of reasoning are also accepted. But any major differences between propositions may destroy the analogy and vitiate the conclusions. Note the false analogy in the following statement: "Women should make better congressmen than men, for government is merely good housekeeping." (The analogy is false because there are major differences between administration of government affairs and management of a household.)

**INSUFFICIENT EVIDENCE.** The fallacy known as *insufficient evidence* refers to the acceptance of inadequate data as a basis for a conclusion. For example, in a trial for murder, the judge may remind the jury that evidence proving that the murder weapon belonged to the defendant does not in itself prove that he used it to commit the crime.

**PATHETIC FALLACY (ANTHROPOMORPHISM).** The pathetic fallacy ascribes human feelings and qualities to nonhuman animals or to inanimate objects. It is true that some characteristics are common to man and to other animals, but the distinctive traits of the human species should not be attributed to nonhuman entities—as, for example, in the following statement: "The mad sea looked angrily at the sky." (Obviously the sea cannot look anywhere, nor can it be described as emotionally disturbed.)

**CONTRARY TO FACT CONDITIONAL ERROR.** This fallacy alters historical facts and then draws conclusions from them. But con-

clusions derived from false premises cannot be accepted as valid. Logical conclusions cannot be drawn from unhistorical suppositions, but only from data accepted as historically true. The fallacy is illustrated in statements such as the following: "If the South had won the Civil War, then slavery would abound in the North today." (Actually, no one can tell what might have happened; the historical facts would have determined the outcome.)

**CONTRADICTORY PREMISES.** Self-Contradictions are necessarily false; consequently, when an argument contains premises which contradict each other, no conclusion is possible. Any conclusion would involve the *fallacy of contradictory premises*; that is, it would constitute a *self-contradiction*. When contradictory premises are present in an argument, one premise cancels out the other. It is possible for one or the other of the two premises to be true, but not for both to be simultaneously true. Note the contradictory premises in the following questions: "If God is all-powerful, can he put himself out of existence, then come to life with twice the power he had originally?" "Can God make a stone so heavy that he cannot lift it?" "Can God make a round square?" "What would happen if an irresistible force met an immovable object?" (One student's answer: "An inconceivable smash!") //

### THE PROBLEM OF TRUTH

From the earliest times, man has been haunted by the many-sided problem of truth. He has often attempted to formulate a definition of truth. He has speculated concerning the general nature of truth. Three major interpretations have emerged: (1) truth as absolute; (2) truth as subjective—as a matter of personal opinion; (3) truth as an unattainable entity, an impossibility.

### DEFINITIONS OF TRUTH

The attempt to define truth involves a number of difficulties. For example, it is difficult to avoid projection of one's philosophical position into any definition. One's philosophical bias will inevitably be reflected; thus, the Existentialist *Martin Heidegger* would equate truth with freedom; *William James*, with relationships in terms of consequences; *Hegel*, with fully realized results;