THE

SCIENCE OF RHETORIC:

AN INTRODUCTION TO THE

LAWS OF EFFECTIVE DISCOURSE.

BY

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"These rules, of old discovered, not devised,
Are Nature still, but Nature methodized."

POPE.

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PREFACE.

This book is not designed as an introduction to English composition, but rather as a systematic presentation of the laws of discourse, for advanced classes.

Most of the text-books on Rhetoric take a one-sided view of the subject. Dr. Whately has treated Rhetoric as a branch of Logic, making it "the art of inventing and arranging arguments;" Dr. Blair treats it as a department of applied Æsthetics, as if it were a purely critical art; Dr. Theremin regards it as belonging to Ethics, as if eloquence were a virtue. This little work aims to explain the whole theory of effective discourse, for whatever purpose and in whatever form it may be used. The specific province of the rhetorician is to render given ideas effective in producing mental changes in others. Rhetoric treats of thought militant. Logic furnishes conceptions which are formally *true;* Æsthetics, conceptions which are *beautiful;* Ethics, conceptions which are *just.* Rhetoric takes these conceptions and establishes them in the mind of another.

Rhetoricians have frequently regarded Invention as a part of Rhetoric. Invention implies the production of some particular kind of thought, conditioned by the nature of the subject-matter. What propositions are

to be maintained by the lawyer, the theologian, the scientist, or the critic, must depend upon the facts of law, theology, science and criticism. The methods of investigation are different in the various departments of thought. Hence no truly useful rules can be given on this subject. The truth has been forcibly stated by John Stuart Mill. He says: "Invention, though it can be cultivated, cannot be reduced to rule; there is no science which will enable a man to bethink himself of that which will suit his purpose. But when he *has* thought of something, science will tell him whether that which he has thought of will suit his purpose or not."

Disposition has often been made a distinct division of Rhetoric. The arrangement of matter contributes greatly to the effectiveness of discourse, but is so conditioned by the nature of the subject-matter, that it cannot properly be made a distinct department of rhetorical science. The parts of a Description, Narration, Exposition, or Argument should be arranged according to the specific laws of these different kinds of discourse. Disposition has been treated in connection with the different classes of ideas, and not as a distinct topic. No recognition is taken of the traditional division of a Discourse into (1) Introduction, (2) Division, (3) Narration, (4) Explication, and (5) Peroration. This is regarded as mechanical and conventional. There is often nothing to divide, or nothing to narrate, or nothing to explicate. All this depends upon the nature of the subject-matter. As a rule, the less conventional the division of a discourse the better.

It has been customary to introduce into works on Rhetoric some discussion of Taste, Beauty, Sublimity,

etc. These topics belong strictly to Æsthetics, a division of science well worthy of the attention which is now bestowed upon it by advanced educators, and which will soon co-ordinate with Logic and Ethics as a study in the college curriculum. It is as reasonable to discuss the nature of *truth* or of *right* in a text-book on Rhetoric, as to admit the discussion of Taste, Beauty and Sublimity. Surely there is as good a reason why our sentiments should be true and just, as why they should be beautiful.

Elocution has long been regarded as a part of Rhetoric, but it is by itself too important and extensive a subject to be treated as a division of rhetorical science. It does, indeed, contribute to render spoken discourse more effective, but so does elegant chirography or clear typography improve the effectiveness of written thought. Rhetoric treats of discourse in general, not of written or spoken discourse in particular.

It has been common in treatises on Rhetoric to give some account of the Origin and Progress of Language. There is no reason why this subject should be treated of in connection with Rhetoric, since language is neither a more nor a less perfect instrument of expression from our knowing its origin and history. The Science of Language is now an independent department of knowledge, and deserves attention as such.

Rhetoricians have frequently included the Forms of Composition as a part of their science. It is evident that completed literary works, such as epics, dramas, histories, novels, etc., belong to Literature, and their classification pertains to the critical section of that department. If it be claimed that Rhetoric treats of the means whereby these forms of composition

are made excellent, it may be answered that the production of such works involves two processes: (1) that of rendering certain given ideas effective; and (2) that of selecting and combining suitable ideas for a particular kind of composition. The first process is rhetorical, and is the same in all composition; the second is technical, and conditioned by the purpose of the writer; the first is the work of the rhetorician; the second is the work of the dramatist, historian, or novelist, *as such*. The poet and the theologian alike make use of Rhetoric, but, in addition, the poet must study Poetics, and the preacher Homiletics. Rhetoric is not the science of play-writing or of preaching, but of rendering given ideas effective, whether in a play or in a sermon.

The old terms Purity, Propriety, Precision, Clearness, Vivacity, etc., have not been used in this treatise, partly because some of them are vague from their figurative use, but chiefly because they are not *distinct* qualities of Style, and the division of properties denoted by them involves repetition or incompleteness.

Having given reasons for the exclusion of some topics which have commonly appeared in works on Rhetoric, I shall now explain why some new ones have been inserted.

Sufficient prominence has not been given to the relation between thought and its expression. This topic has been somewhat fully discussed in the Introduction.

The advantages and disadvantages of language as a medium of expression in comparison with other means of communicating ideas, have been fully exhibited, in order that the peculiar conditions of verbal expression might be realized.

The consideration of the Laws of Mind may seem strange to those who have regarded Rhetoric as dealing only with the communication of thought. But if the rhetorical process aims at effecting mental changes, the laws according to which those changes must take place form an important part of rhetorical science. The treatment of Age as furnishing particular laws of mind, is not new. In Aristotle's Rhetoric, three chapters are devoted to this topic. Experience and Affiliation are not less important modifiers of the human mind, and deserve the closest attention of the rhetorician.

That expression is conditioned by the nature of the idea to be conveyed is vaguely acknowledged by most works on Rhetoric. The Laws of Idea, based upon the essential nature of the four elementary classes of ideas, are believed to be of great importance.

The Laws of Form are here for the first time derived from a single principle. The Law of Mental Economy, as enunciated by Spencer, has been so modified and developed as to refer all the valid precepts of Style to a single law, thus affording to Expression what Aristotle's *dictum* affords to Deductive Reasoning. Taken in connection with the laws of Association, this Law of Economy at once explains the great value of Figurative Language, and furnishes rational rules for its use.

A systematic analysis, by insuring a progressive exposition and avoiding repetition, enables the learner to master the whole work in a very short time. Notwithstanding the compendious form in which the subject is presented, it is believed that the student will be able to see the reason for everything as he proceeds, and it is hoped that teachers who may use the book will be able

to supplement it with oral illustrations. The Exercises at the end of the book are regarded as an important addition, and their use in the class-room may be made highly profitable. The topical method seems to be the only proper mode of recitation for advanced students, and this work has been especially designed for that method. The headings, however, may be used as questions by those who prefer the catechetical method of reciting.

It is not claimed that any new precepts of composition have been derived from the treatment here adopted. The merit of the plan is believed to be simply that of scientific analysis, furnishing the *rationale* of such rules as have long been laid down by rhetoricians. Astronomy creates no new celestial movements; it simply aids us in comprehending those which were observed but not understood by the earliest shepherds of our race. Rhetoric cannot *make* laws for composition, but it can *discover* them, and explain why poetry pleases and eloquence wins, by referring their effects to the laws of mind and language.

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INTRODUCTION.

1. Essential Elements of Discourse.

Every sentence is designed to communicate an *idea*, and employs language as the *medium* of communication. The idea may be definite to the mind of the communicator, but vague to the interpreter of the sentence. This is because the medium does not always perfectly reveal the idea. There is obviously such a distinction between the idea and the medium as to present two classes of facts for our consideration.

2. The Relations of Thought and Language.

A proper conception of the relations of an idea and its medium of expression, is of primary importance. As the question belongs both to Linguistics and to Logic, we shall cite authorities from both sciences.

(1) Language and Thought Separable.—After showing that thought is antecedent to expression, Professor Whitney says: "Language, then, is the spoken means whereby thought is communicated, and it is only that. Language is not thought, nor is thought language; nor is there a mysterious and indissoluble connection between the two, as there is between soul and body, so that the one cannot exist and manifest itself without the other. There can hardly

elementary forms of discourse, we shall cover the whole ground of the conditions of communication depending upon the nature of the idea. These four classes of ideas give rise to four different processes of communication :

(1) The parts of a *simultaneous* whole are presented to the mind by *Description.*

(2) The parts of a *successive* whole are presented to the mind by *Narration.*

(3) A *general notion* is unfolded to the mind by *Exposition.*

(4) A *proposition* is confirmed to the mind by *Argumentation.*

CHAPTER I.

DESCRIPTION.

1. Describable Objects.

Complex objects only are capable of description. A simple object, as for instance the color blue, cannot be described. We may give instances of it, but one who had never seen any blue object could never learn from description what blue is. In order that anything may be capable of description, it must consist of parts which may be mentioned, and whose relations may be shown.

2. General Laws of Description.

There are some general qualities which every description should possess.

(1) The Law of Purpose.—Whenever we describe anything, we do so with a definite end in view. Let the subject be the United States. We might describe the United States for a geographical purpose, to inform the mind how the parts of the country are related in direction and distance ; for an antiquarian purpose, to portray the condition of aboriginal tribes ; for a geological purpose, to illustrate the operation of physical forces ; for a political purpose, to demonstrate the necessity of national unity in so vast a country. Our selection of circumstances should be governed entirely by the purpose of the description.

(2) The Law of Unity.—The mere enumeration of

qualities is not sufficient for a perfect description. There must be coherence between the parts enumerated, a mutual dependence and correlation. Hence the necessity of proceeding according to some definite plan.

(3) The Law of Completeness.—It is necessary that nothing important to the purpose be left out of the list of qualities. It is not to be supposed that all the constituents of an object must be mentioned. The purpose regulates this. A description of the United States which should leave out the great rivers might be proper for some purposes, but for industrial purposes such a description would be worthless.

(4) The Law of Brevity.—The memory is soon overpowered by details. Hence a description should avoid all useless minutiæ, and even leading characteristics which are irrelevant to the purpose. Vivacity is gained by this elimination, and the attention is more easily retained.

3. Kinds of Description.

It will be convenient to distinguish three kinds of description, which, from their peculiarities, should be treated separately. They are description of (1) OBJECTS OF SENSE; (2) MENTAL STATES; (3) CHARACTERS.

SECTION I.

OBJECTS OF SENSE.

1. Purpose.

(1) Point of View.—The purpose for which we describe an object should determine our point of view. This should be settled in the beginning. A description

of the United States for a class in geography might make the actual position of the class the point of view, and proceed outward in straight lines or concentric circles. If we were describing the peculiarities of the country to a foreigner, we might select his entrance into an American harbor as the point of view, and then conduct him into the interior and across the continent. The point of view should not be shifted without warning.

(2) Division.—Complex objects require systematic division, in order to be understood as a whole. The kind of division depends upon the purpose, taken in connection with the character of the object. A description of the earth's surface for a political purpose, divides according to national boundaries; for a meteorological purpose, according to zones; for a purely geographical purpose, according to continents.

2 Unity.

(1) Order.—Although a proper division is helpful to unity as well as important in its relation to purpose, the order in which the parts are considered is still more essential. The order will depend also upon the purpose of the description, but must be chosen chiefly with regard to unity. If a central and causative principle can be found, it will assist unity to follow the operation of this. Thus, in describing the climates of the earth, it would be best to follow the apparent movements of the sun, beginning at the equator. Another means of securing unity is to follow the order of actual perception. In describing a distant mountain, for instance, unity would be promoted by mentioning the various phases of its appearance in the order in

which they would occur to one approaching the mountain.

(2) Fitness.—It is conducive to unity to hold constantly in mind the exact purpose of the description, as particulars are suggested, and to decide upon their fitness for the end in view.

3. Completeness.

(1) Location.—One of the common violations of the law of completeness is the omission to fix the place of the object described. A description of any thing ought to be introduced by information about the place where it is found. This is especially the case when the object is local.

(2) Inner Qualities.—A description of an animal would be imperfect without some account of its instincts and habits. The mere external form and size are the least interesting facts with regard to animals. Their sagacity, their modes of life, and their disposition toward man are essential to any complete account of them.

(3) Time.—Every thing in nature is subject to change. A description is, therefore, unsatisfactory unless the time of the observation be given. We should know whether a plant or animal was young or old when the observer saw it. Even the posture, the time of day, the antecedent circumstances may be important. Travelers have variously described the chameleon, for its hue depends upon its own mood, the color of the objects about it, and even the temperature. In a certain sense all nature shares the qualities of this reptile.

(4) Magnitude.—Misconception is likely to result

from a failure to note the magnitude of an object. When the size is unknown from obvious relations, it should always be in some way stated.

4. Brevity.

(1) Comparisons.—Among the various means of complying with the law of brevity, comparison is useful. A happy simile or metaphor often presents a somewhat complex object in a single word. Novel views of familiar objects are thus brought to mind, and by stimulating the attention are helpful to the description. An American poet thus describes the seashore :—

> " The curved strand
> Of cool gray sand
> Lies *like a sickle* by the sea."

(2) Effects.—Another means of shortening the description is to describe the effect upon the mind, and leave the fancy to fill out the picture.

(3) Contrast.—Some objects may be described by contrasting them with well known opposites. This is generally productive of brevity, but care is necessary to avoid obscurity. We cannot always determine what an object is like from a knowledge of what it is not like.

(4) Fixed Classes.—Many objects may be sufficiently described by being referred to certain fixed classes. The botanist, for example, needs only the genus and species of a plant in order to know its character. Only the leading characteristics of a mineral are necessary to describe it for a mineralogist. This, however, is properly classification, rather than description in its common sense.

SECTION II.

MENTAL STATES.

In the strictest sense mental states cannot be described. Unless similar states have been experienced by the mind addressed, they can be communicated only by indirect means, and even then with doubtful precision. The modes of communicating states of mind are two: (1) by the mental vocabulary; and (2) by various associations. In the expression "mental states" we include only the subjective modes of consciousness, and not the consciousness of external objects.

1. The Mental Vocabulary.

The words used to designate states of feeling and the various powers of the mind are not in any true sense descriptive. They are symbolical signs associated with certain phenomena which they serve rudely to indicate. The chances of mistake in their interpretation are, therefore, very great. Hence the difficulty and seeming vagueness of metaphysical systems. Several peculiarities of the mental vocabulary need special attention.

(1) Metaphorical Character.—All the radical elements of language are significant of purely physical substances, qualities, acts, and relations. Such words as *perception*, *imagination* and *feeling* are derived from radicals primarily significant of material things. If we forget the metaphorical character of all higher speech, we shall be continually led into the error of supposing that there is an essential likeness between mental processes and physical acts. That there is an

analogy there can be no doubt, and in some instances, possibly, a direct resemblance. But we are not at liberty to suppose that mental and physical phenomena correspond throughout.

(2) Indefiniteness.—From this want of correspondence between internal states and external phenomena, the language of the mind is often indefinite. When we speak of a *mountain*, a *river*, or a *tree*, distinct notions rise in the mind; but when we speak of *love*, *joy*, *anger*, and other states of feeling, an apprehension of what is meant implies a personal experience of these states. The indefiniteness of language is increased by the individual modification to which all these states are subject. Thus *love* may mean widely different things to different persons, according to their temperament and extent of experience. Joy, too, may be either a calm, tranquil quiescence, or a tumultuous delight. Anger may mean to one a petty irritation, to another, a righteous indignation in which the whole moral nature is profoundly agitated.

(3) Subjective Result.—The effect of language descriptive of the feelings upon the mind addressed, therefore, depends upon an infinite number of incalculable circumstances. The attempt to communicate the feelings and other complex mental states by the ordinary vocabulary of the mind, is almost certain to prove unsuccessful. The simpler and more common states of feeling may be thus reproduced in another or tolerably well suggested by the use of their proper names; but as soon as the phenomenon becomes exceptional, as in the finer shades of emotion, the exact communication of it in this way becomes almost impossible.

2. Various Associations.

What cannot be done successfully by the ordinary vocabulary may often be easily accomplished by various concomitants. Some of these may be noticed.

(1) External Expression.—There is a natural language of the body which is universal among men, and founded on laws of muscular and nervous action. The leading emotions of the mind have their characteristic modes of expression in the tones of the voice, the color of the face, and the gesticulations of the body. Love, joy, anger, pain, and pleasure, have each an external sign which is seldom mistaken. In describing the feelings, this language may be joined with the proper mental vocabulary to enforce expression. A description of the external accompaniment of an emotion is often the best possible description of the emotion itself.

(2) Actions.—Closely allied to the bodily expression, is the conduct produced by mental states. The habits of men are regulated by their feelings. The worship of art or literature springs from a devotion of soul which none but devotees can fully comprehend by any direct description ; but all form some notion of the intensity of this feeling when the humiliation, pain, and depression endured for its sake are minutely described. In one of his tales, Crabbe very successfully describes the state of an unfortunate girl by naming her favorite occupations. The question, how must one feel to select these pursuits? leads the inquirer with great exactness to the proper state of mind.

(3) Surroundings.—The surroundings have much to do with our feelings. We are impressed by the

scenery, the companionship, and the probable occurrences. It may, therefore, assist the communication of a feeling, to describe the circumstances in which it was produced, and then more directly state the character of the feeling. The external features of the occasion will thus assist the interpretation of what might otherwise be obscure.

(4) Causes.—Since human nature is governed by general laws, men of like dispositions are apt to feel the same from the same causes. Very often the most satisfactory way to communicate an emotion is to state the causes of it. When the emotion is unusually complex, this is often the only way in which the feeling can be communicated. The various dispositions of men render this mode somewhat uncertain, since the same causes produce different effects in different persons.

SECTION III.

CHARACTER.

The character of men is generally reflected in a narrative of their lives, but, considered as a complete growth, character may be described. Several peculiarities belong to the description of character. Some of these may be mentioned.

1. Individuality.

Only marked characters are worth describing. The distinctive traits of a man are necessary to a successful description. Those shared in common with most men of the same class may be sufficiently indicated by referring the character to that class. The power to

seize upon what is purely individual is the secret of all great character painting. It was possessed pre-eminently by Shakespeare. His female characters are very numerous, and generally among the most exquisite creations in literature. "And these Shakespearian women," says Whipple, "though all radiations from one great ideal of womanhood, are at the same time intensely individualized. Each has a separate soul, and the processes of intellect as well as emotions are different in each." *

2. Inward Principles.

Specific acts are important only as suggestive of internal principles. These make up the character. External acts are helpful to the portraiture of character, but this carries us beyond the region of mere description, and invades the territory of narration, in which the *growth* of character is exhibited. The process of *investigating* character should be *inductive*. From isolated manifestations we infer the actuating motives, and thus arrive at the dominant qualities of mind and heart. The *description* of character should be *deductive*. The ruling principles should be stated first, and exemplified if necessary by illustrative instances. Thus every item will have the force of a confirmation, instead of being a mere datum from which to infer the principle.

3. Concrete Form.

No mere sum of abstractions, however, can truthfully represent a character. "A man is not an abstract

* *The Literature of the Age of Elizabeth.*

passion," says Taine. "He stamps the vices and virtues which he possesses with his individual mark. These vices and virtues receive, on entering into him, a bent and form which they have not in others. No one is unmixed sensuality. Take a thousand sensualists, and you will find a thousand different modes of sensuality; for there are a thousand paths, a thousand circumstances and degrees in sensuality." * Portraitures of men which represent them as incarnations of a single vice or virtue are evidently untrue. No man is without redeeming virtues, and no man is absolutely free from faults or inconsistencies. Even an ideal character should not be perfect, if designed to represent any possible human being.

4. Environment.

A character is a product, and must be studied in its environment. Apart from his circumstances in life, a man excites little genuine interest. Virtues and vices are wonderful or common-place, according to the soil in which they grow. Piety is an essential and natural element in the life of a great divine, and hence would be much more striking in the life of a common sailor. Vices which would seem natural to the seaman would seem to be foul blots upon the character of the divine. Hence consistency requires that character be described in connection with its atmosphere.

* *English Literature*, Vol. I.

CHAPTER II.

NARRATION.

NARRATION is the presentation to the mind of the parts of a successive whole. Its theme is a series of related events occurring in time. Language, being itself related to time as a succession of signs, is particularly adapted to narration. This form of discourse presents three principal problems: (1) the SELECTION OF SUITABLE CIRCUMSTANCES; (2) the REPRESENTATION OF EVENTS IN THEIR PROPER SEQUENCE; and (3) the REPRESENTATION OF SYNCHRONISTIC EVENTS SO AS TO SHOW THEIR TRUE RELATIONS. These problems will be discussed in the following sections. No distinction is necessary between real and invented events, since the aim of fiction is to counterfeit reality.

SECTION I.

THE SELECTION OF CIRCUMSTANCES.

1. Purpose.

The selection of circumstances depends greatly on the purpose for which a narrative is composed. We may give special attention to the *temporal* element, and so produce mere *annals* or *chronicles;* we may relate the changes to which any thing has been subjected, and so narrate its *history*; we may *explain* the

causes which have been operative in effecting those changes, and so construct a *philosophical history*. We may write the history of a country, England for example, to illustrate the progress of literature, science, or civil institutions. In all these cases, our purpose must govern our selection of circumstances from the great mass of facts. The same law of purpose is of equal authority, no matter what the character of the narrative, whether a nation's history, or a short anecdote.

2. Unity.

We should be influenced in the selection of materials by the law of unity. This requires that all the elements of a narrative be parts of a great whole, and organically related with one another. The introduction of collateral circumstances having no bearing upon the main conception is a violation of this law. Loose narrators are prone to digress into episode, and thus mar the effect of their narrative. Writers of fiction who are paid for the quantity of their work are specially in danger of this gross fault. In following the fortunes of a hero, we do not need to be told of the personal habits of his distant relatives. This prohibition of unrelated details ought not to be understood as a condemnation of appropriate details on the ground of their individual insignificance. The minutest particulars, if they have a direct bearing, are often the most significant and indispensable.

3. Completeness.

Sufficient fullness to maintain the interest and to explain important occurrences, is necessary to a successful narrative. Few minds are interested in mere

compends and abstracts. Specific details fix the attention and fasten events in the memory. A narrative has an artificial appearance if each event be not explained by the preceding events. The omission of details is therefore injurious to the effect, when they are vitally connected with the succession of incidents. No history is complete without occasional references to contemporaneous facts in other departments. A history of literature which should take no notice of those social and political revolutions which produce great men and generate epoch-making ideas, would be unworthy of being called a history.

4. Brevity.

Prolixity is the bane of effective narrative. Novels in two or three thick volumes, recounting the insipid adventures of some common-place personage, are the most tedious of literary creations. Histories which spin out the thread of events to undue length, though often praised and quoted, are seldom consecutively read. The memory can retain only a limited number of details, and narratives constructed without reference to the natural limits of this faculty, are almost sure to pay the penalty of dullness. Vivacity, also, as in description, is secured by confining the narrative to what is essential.

SECTION II.

THE SEQUENCE OF EVENTS.

1. Time.

It is important to a narrative that its incidents be related in the chronological order in which they occur.

This is usually the philosophical order, for events are not mere isolated links, but form part of an endless chain of antecedents and consequents, each of which is a cause of its consequent, and an effect of its antecedent. A narrator rises in dignity in proportion as he becomes a philosopher, and explains the events he narrates. This requires a constant reference to the actual sequence of events in time. Chronology and geography have been aptly called the two eyes of history. Chronology, by a different metaphor, has been called the latitude and longitude of narrative. The reader misses a marginal chronology in Gibbon's great history.

2. Reasons for Violating the Order of Time.

Sometimes it may be desirable to violate the actual order of events for a special reason. Thus Virgil, in the "Æneid," first describes the storm which wrecked the fleet of his hero, and threw him upon the African coast, and then causes him to relate to Queen Dido his own previous adventures. Homer had employed a similar plan in the "Odyssey," where Odysseus is represented as recounting his misfortunes to the Phæacian court. In these cases the violation of the natural order is for the obvious purpose of allowing the hero to add the charm of personal narration to the story of his wanderings. George Eliot has used a similar inversion for a different purpose. In "Daniel Deronda," the heroine is introduced to the reader as a desperate pleasure-seeker in a gambling scene. The remainder of the story is to a great extent occupied with a retrospective history of her life. The obvious design of the inversion is to absorb the reader's attention and inter-

est in the chain of events which brought Gwendolen Harleth to the gaming table.

3. Retrospective References.

A backward reference may be necessary in placing the true order of events before the mind. Macaulay, in his "History of England," introduces his account of the period about which he specially writes with a prefatory summary of English history from the Roman invasion. Thus his readers are prepared to place the events which make up the history in their proper relations with their antecedents. A plan somewhat different from this is, to describe a recent or existing state of affairs, and then to point out the causes which have produced it. An acquaintance with present facts interests us in their antecedents. In his "Elements of Geology," Sir Charles Lyell has first shown what is to be accounted for, and then proceeds to narrate the geological history of previous ages, by which he accounts for the present state of the globe.

4. Probability.

Probability ought to be attended to in a narrative. It depends greatly upon the order of events whether or not they seem probable. Writers are most in danger of making their story improbable when there are many concurrent events having a causal relation, but which are not brought into one view. This leads us to the topic of the next section, in which the best modes of surmounting this obstacle will be pointed out.

SECTION III.

SYNCHRONISM OF EVENTS.

1. Kinds of Concurrence.

The chief difficulties of narration arise when concurring streams of events have to be exhibited as contemporaneous in order to show their actual relations. This concurrence is of several kinds.

(1) Plurality of Departments.—The life of a nation is complex. One department acts upon another, and is acted upon by other departments. Military, political, social, literary, and scientific life all flow on together, and their currents ever mingle and impart color to one another. The highest genius is requisite to exhibit all these various modes of progress in a true panoramic view.

(2) Contending Parties.—The historian ought to rise above the advocate, and, when there are two sides, he is under obligation to represent both. In depicting any kind of conflict, where the movements of both sides are to be narrated, there is great danger of confusion from a frequent shifting of the point of view. Few historians have the advantage of Kinglake at the Alma, where, as an eye-witness, he retains his point of view throughout the conflict. Those who compile from the accounts of many witnesses are in danger of sacrificing unity, and of blurring the whole picture.

(3) Principal and Subordinate Actions.—In a biography, or the narration of a campaign or voyage, the events are not all of the same rank. Some are principal, others merely subordinate. These must be

carefully distinguished, and prominence must be given to the principal events, while the minor incidents must be duly subordinated.

(4) Different Countries.—The history of some countries, Greece for example, is the history of a single race, but at the same time consists of a plurality of histories. Sparta, Athens, and Thebes live an independent life. The historian of Greece must carry along the story of all these states, with their numerous colonies, so as to maintain unity, and at the same time to give to each state its separate place in the narrative. The difficulty is increased when the historian attempts to narrate the concurrent progress of states less intimately connected, as in a history of Europe or of the world. Here the highest genius is necessary to success. An interesting universal history is more difficult than an epic poem, and it may be said that the problem of its production remains unsolved.

2. Means of Expressing Synchronism.

The expedients resorted to in representing contemporaneous events are of great practical value, yet they leave many things for genius to solve in its own mysterious way. Macaulay was gifted, perhaps beyond all other men, with the power of seeing periods of history as organic wholes, and has succeeded in presenting them as such. Taine thus speaks of this gift: "So many accumulated events form with him not a total, but a whole. Explanations, accounts, dissertations, anecdotes, illustrations, comparisons, allusions to modern events, everything is connected in his book. It is because everything is connected in his mind. He had a most lively consciousness of causes; and causes

unite facts. By them scattered events are assembled into a single event; they unite them because they produce them, and the historian who seeks them all out, cannot fail to perceive or to feel the unity which is their effect." *

Of the ordinary means of overcoming the difficulties of synchronism, we may mention the following:

(1) Sensible Forms.—Charts in the form of trees, streams, and other physical objects, may be helpful in fixing the relations of periods in the mind. In written history they are of very great service, but even in speaking they may often be employed. Here the metaphor or simile takes the place of the actual chart. For example, in tracing the history of the Indo-European family, the migrations of that race may be represented under the figure of seven streams diverging from a common fountain, and, although each is followed separately, the mind will readily perceive that the others are flowing simultaneously, and this may be indicated by concentric circles intersecting the streams and representing centuries.

(2) Analysis.—A perspicuous division into chapters and sections assists the mind in associating synchronistic events. Hence every complicated narrative should be so divided as to suggest the parallel occurrences. The division of history according to reigns is not so philosophical as a division according to great historic movements. In composing the biography of a great man, it would be absurd to divide his life according to the contemporary presidents. In every life, individual or national, there are causes which impel the man or the nation in certain different directions. These are the

* *English Literature*, Vol. III.

true outlines of analysis, and give rise to distinct epochs.

(3) **Summary.**—A condensed summary of a period may be useful in setting events necessarily separated in the progress of the narrative in their proper chronological relations. Such abridgments serve the same purpose as maps after an observation of the ground. They correct the erroneous impressions resulting from detached views. The proper place for a summary depends upon circumstances. If interest in the plot will be diminished by a revelation of it, the summary ought not to be presented in the introduction. If, however, by coming first it will abridge the process of arrangement in the mind of the reader, it may be placed at the beginning, as a topographical map is spread out before a campaign. Usually the summary is retrospective. Coming after the detailed narrative, it serves to straighten the entangled threads of the story.

CHAPTER III.

EXPOSITION.

1. The Nature of Exposition.

EXPOSITION consists in such an analysis of a general term as will make clear to the mind the general notion of which it is the sign. By "general term" is meant a word indicating a general notion. By "general notion" is meant a mode of thought in which certain attributes are taken as belonging to certain objects, and as uniting them in one class. Thus "*animal*" includes the attributes "*organized*," "*sentient*," etc., and is applicable to such objects as "*men*," "*horses*," "*dogs*," etc., which make up the class "*animal*" by possessing the attributes "*organized*," "*sentient*," etc., in common. A general term is distinguished from a singular term, such as *Rome*, *Julius Cæsar*, *the Nile*, indicating a single object.

2. Forms of Exposition.

Exposition assumes two forms: (1) Exposition of the notion in itself; and (2) exposition of the notion in its relation to other notions. In either of these forms of exposition, we may have single terms, or terms united in propositions. In order to avoid useless repetition, it may be stated that the exposition of the terms of a proposition is an exposition of the prop-

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position itself. Thus in the proposition, "Free institutions are promotive of happiness," an exposition of the subject and the predicate would be an exposition of the whole proposition. The copula "*are*" requires no exposition. Any doubt with reference to the copula, is not a doubt as to the *meaning*, but as to the *truth* of the proposition. The truth of a proposition must be established by argument, which takes for granted the meaning of the terms, and is occupied with the negative or affirmative quality of the copula. Exposition elucidates the meaning of "*free institutions*" and "*promotive of happiness;* and here its office ends. Argumentation then decides whether the copula should be "*are*" or "*are-not.*"

SECTION I.

EXPOSITION OF THE NOTION IN ITSELF.

1. Comprehension and Extension.

A general notion, or conception of a class, includes certain attributes and certain objects to which the attributes belong. For example, the word *man* includes such attributes as *rationality, intellectuality, voluntary power*, etc., and also includes all the individual beings known to us as men. Man is also an *animal*, but this term includes a greater number of objects than the word *man*, for it embraces *horses, dogs*, etc. But these other animals do not possess *rationality* or *intellectuality*. The class "*animal*" excludes common attributes in proportion as it includes more objects. We have, then, in a general notion, two kinds of quantity: (1) *comprehension*, which is made up of the different

attributes included in the notion; and (2) *extension*, which is made up of those *objects* which are included in the general notion. These two, comprehension and extension, are in an inverse ratio to each other. As we pass from "*man*" to "*animal*" the extension increases, but the comprehension diminishes; the *objects* included are *more* numerous, the *attributes* implied are *less* numerous.

2. Nature of a Definition.

The exposition of the comprehension of a notion is its logical definition. Thus, in the notion *man* there are two constituent notions, the first including the attributes of the notion *animal*, the second including the attributes of the notion *rational*. These constituent notions, *animal* and *rational*, may in turn be resolved in like manner into more elementary notions, and so on until those notions are so elementary as to satisfy the mind. In each of these processes of resolution we have one constituent notion which *includes* the notion defined. This is called the *genus*. The other constituent notion *distinguishes* the notion defined from the genus, and is called the *differentia*. A definition is, therefore, a division of a general notion according to its attributes. It follows that a simple notion, which can be referred to no genus, cannot be defined. Thus *being*, the highest genus known to the mind, is indefinable.

3. Nature of Division.

The exposition of the extension of a notion is its division. Thus, the notion *man* includes under it *white* men, *black* men, *red* men, etc., divided according to *color; Africans, Asiatics, Europeans*, etc., divided

according to *geographical lines; Jews, Mohammedans, Buddhists, Christians,* etc. divided according to *religion.* It is evident that the character of our division will depend entirely upon the principle according to which we divide a notion into its constituent objects. It follows that a notion cannot be divided when it includes only one object.

4. Difference between Definition and Division.

Definition and division are opposite processes. Comprehension is simply the sum of the qualities, characteristics or attributes of which a notion is composed, and is resolved into its parts by definition. Extension is simply the sum or complement of the objects whose resembling characteristics constitute the general notion, and is resolved into its parts by division. Definition is a discrimination of attributes; division a discrimination of objects. As the list of attributes is lengthened, the list of objects possessing them is shortened; and *vice versa. Being* is the maximum of extension and the minimum of comprehension. Including the greatest number of objects, it includes the least number of attributes.

5. Kinds of Definition.

Three principal kinds of definition are distinguished by Hamilton.

(1) Nominal.—Nominal definitions are mere explications. They are, therefore, generally preliminary to a more precise distinction. Thus the nominal definition of a circle is, "The word 'circle' signifies a uniformly curved line."

(2) Real.—In real definitions, the object defined is considered as existing, and the notion precedes the definition. They are merely analytic, nothing being given explicitly in the defining number which is not contained implicitly in the subject defined; as, "A circle is a line returning upon itself, of which all the parts are equi-distant from a given point."

(3) Genetic.—The genetic definition represents the defined object as in the process of becoming. It is therefore synthetic; as, "A circle is formed when we draw around, and always at the same distance from a fixed point, a movable point which leaves its trace, until the termination of the movement coincides with its commencement." The genetic definition is possible only when the objects to be defined are quantities represented in time or space.

6. The Laws of Logical Definition.

The following are the laws of a strictly logical definition.

(1) A definition must be adequate.—This necessitates a genus and a differentia. A true definition will admit of a transposition of the subject and the predicate. Such a transposition is an easy test of a definition. If "Man is a rational animal" be an adequate definition, it must be true that a rational animal is a man; for otherwise something besides men is included in the definition.

(2) A definition must not define by negative or divisive attributes.—We do not say what a notion is by saying what it is not; nor do we define a notion by referring it to one class *or* another, which is a process of division. These expedients may properly precede

and prepare the way for a definition, but they are not definitions.

(3) A definition should not be tautological.—We cannot define an object by *itself*. This is called "defining in a circle." This is a very common fault, and is fostered by the bilingual character of the English language, which renders it possible to define an Anglo-Saxon word by a Norman-French equivalent. The verbal form conceals the repetition of thought. This mode of explaining by equivalents is often useful, but must not be mistaken for a logical definition.

(4) The definition must be precise.—Any attribute not essential to the distinction only confuses it. The looseness of a definition leaves it open to refutation. The Platonic definition, "Man is a two-legged animal without feathers," was refuted by exhibiting a plucked bird, which, by transposition of the subject and predicate, would be a man, if the definition were correct.

(5) A definition should be perspicuous.—The very object of a definition is clearness. That it should itself be perspicuous is, therefore, self-evident. Brevity is generally necessary to perspicuity. Figurative language will often render definitions brilliant, but it will frequently expose them to criticism for violating this law.

7. Kinds of Division.

(1) Partition.—The notion *man* may be regarded as made up of certain attributes; as *living being, rational, mortal*, etc. This division of a notion into its component attributes is called *partition*. It differs from definition in enumerating all the attributes which make up a whole, while definition states only a genus and differentia. It differs from logical division in

being a division of the comprehension, not of the extension.

(2) Logical Division.—A logical division is an exposition of the extension of a notion; it enumerates, not the attributes but the species of a notion. Thus man may be divided into the various species together comprising the general notion *man*, and the division, as previously shown, may be according to any one of many principles. The principle of division is the one essential attribute according to which the division is made. The notion is called the divided whole; its parts are the dividing members; these with reference to one another are co-ordinates; with reference to the divided whole, subordinates.

8. The Laws of Logical Division.

The logical division of a notion is regulated by several laws.

(1) Every Division should have some Principle.—The reason of this is manifest. If there be no attribute with reference to which objects are classed, there can be no division.

(2) Every Division should have but one Principle.—If there are two or more principles of division, there will be no division. Thus, to class men as *white, African, English, moral*, and *Jews*, would not be a division of men, for these classes include one another.

(3) The Principle of Division should be an actual and essential character of the divided whole.—Unless such a principle be selected, there will be no distinct and recognizable line of demarcation between the subordinates.

(4) No dividing member must of itself exhaust

the subject.—This law follows from the axiom that a part is less than the whole. That then must be a faulty division which represents a part as exhausting the whole. A division of men into *intelligent* races and *barbarous* races, would violate this law, since all men possess some degree of intelligence, and are hence included under the first class.

(5) The dividing members must together exhaust the notion, but not more.—Leaving out a distinct class violates this law. Thus, if we were to divide all actions into the *morally good* and the *morally bad*, excluding those which possess no moral quality, the division would be incorrect. This division would be a correct one of *moral* actions, but not of actions generally, since some are morally indifferent. If we were to divide geometrical figures into *surfaces*, *solids*, *lines*, and *points*, we should more than exhaust the notion expressed by the word *figures*, for *lines* and *points*, though elements of figures, are not figures.

(6) The dividing members should not include one another.—This law is often practically difficult to follow. Presenting the same subordinate more than once is a violation of this law. A perfect exposition of a science would so classify its facts that they would appear but once. Practically this is almost impossible. Logic and Æsthetics, for example, are distinct from Rhetoric, but there could be no science of Rhetoric which should not repeat facts of Logic and Æsthetics. Again, the laws of Rhetoric are laws of mind, of idea, and of form, but they are all so interdependent that the same fact often reappears under each of these divisions.

(7) A division should proceed continuously without hiatus.—Division may proceed through proximate or remote subdivisions. A perfect division does not leap over intermediate steps. Mathematicians may for brevity say, "Angles are either right, or acute, or obtuse." A continuous division would be, "Angles are either right or oblique; and the oblique, either acute or obtuse."

Imperfect.

Angles. { 1. Right. 2. Acute. 3. Obtuse

Continuous.

Angles. { 1. Right. 2. Oblique. { (1) Acute. (2) Obtuse.

9. Exposition of a Proposition.

A proposition may be explicated by the exposition of its terms. This exposition may be by definition or by division. The process may be illustrated.

(1) By Definition.—A proposition may be explicated by the definition of its terms. Let us take the proposition, "Democracy is promotive of liberty." Assuming that the word "promotive" needs no exposition, we have an exposition of this proposition when we have defined the terms "democracy" and "liberty." In seeking for the genus of "democracy," we must first decide whether we mean a *form of government*, a *political party*, or the avowed *principles* of that party. If we mean the first, *form of government* is the genus. The differentia is expressed in the phrase *by the people*, which distinguishes it from other forms of government. The logical definition of "democracy," in this sense, is, *A form of government by the people.*

"Liberty" must now be defined. In its political sense, "liberty" may be referred to the genus *state of society*. It must now be distinguished from other states

of society, such as license, anarchy or despotism. The differentia *regulated by just laws* distinguishes it from these, since license is lawless, anarchy is the absence of law, and despotism interferes with it. The definition of "liberty" is, *A state of society regulated by just laws.* Substituting the two definitions for the original terms, we have the proposition, *A form of government by the people is promotive of a state of society regulated by just laws.* This is an exposition by definition of the original proposition.

(2) By Division.—Let us take the proposition, "Free institutions are compatible with literary progress." Assuming that the expression "compatible with" needs no explanation, the exposition of the terms "free institutions" and "literary progress," is the exposition of the whole proposition. Before dividing the subject "free institutions," we must select a principle of division. Let it be the *interests* of society. These are *educational, political, religious, commercial, industrial,* etc. We may then state the proposition thus:

Free { educational, political, religious, commercial, and industrial } institutions are compatible with literary progress.

We may now divide the predicate. "Literary progress" may be divided into the progress of the different departments embraced under the notion *literature.* These may be imperfectly enumerated as *oratory, poetry, history, criticism, journalism.* Substituting this complex predicate for the term "literary progress," we have this exposition of the original proposition:—

Free { educational, political, religious, commercial, and industrial } institutions are compatible with progress in { oratory, poetry, history, criticism, and journalism.

It is important to note that if the expanded subject and predicate agree, the truth of the original proposition is made evident. If, on the contrary, disagreement can be shown between any element of the expanded predicate and any element of the expanded subject, it shows that the original proposition is not universally true.

SECTION II.

EXPOSITION OF THE NOTION THROUGH ITS RELATIONS.

When the logical exposition of a notion is not convenient, it may be explicated through its relation to other notions. Several methods of doing this may be enumerated.

1. The Method of Particulars.

We may explicate a notion by mentioning particular cases or concrete instances. This is a simple expedient, adapted to a low order of intelligence, and requiring no powers of generalization. Thus, poetry may be explained by enumerating representative poems, and beauty by concrete examples of the beautiful in objects.

2. The Method of Conditions.

A second method of explicating a notion is to mention the conditions essential to its production or exis-

tence. Thus the notion *dew* may be explained by the enumeration of the circumstances in which the moisture of atmospheric vapor condenses. Cause and effect are both included under this head.

3. The Method of Similars.

A general notion may be explained by comparing it to similar notions. No direct similitude is necessary, but simply a resemblance of relations. Our notions of divinity and supernatural beings are explicated through our notions of *being* and *spirit* as they are known to us in consciousness. Hence many of the most important ideas of philosophy and religion are explicated in this way.

4. The Method of Contrast.

We may give an exposition of a notion through its opposite. All knowledge is double. Heat and cold, light and darkness, good and evil, are fixed in thought as opposite poles. Some of our most common notions can be discriminated only by this method. The notion of *self*, or the *Ego*, is distinguished from the *not-self*, or *non-Ego*, by the method of contrast.

CHAPTER IV.

ARGUMENTATION.

1. The Rhetorical Use of Argument.

In many modern systems of Rhetoric, argumentation has no place. The whole process of confirmation is referred to Logic. We need, however, to distinguish between the logical and the rhetorical treatment of the subject. Logic deals with the laws of thought as thought; Rhetoric deals with the laws of altering or producing conviction. The problem of Logic is, with certain propositions as premises, what conclusion may we draw in accordance with the laws of thought? The problem of Rhetoric concerning arguments is, given, a certain conclusion, how may we confirm it to the mind of another? Logic gives us the *test* of arguments; Rhetoric gives us the rules for making them *effective*. With this distinction, argumentation forms an important part of Rhetoric.

2. The Division of Arguments.

The first step in the treatment of arguments is to find a correct classification of their kinds. Several divisions have been given.

(1) **Form.**—They have been divided into irregular or enthymemes, and regular, or syllogisms; syllogisms into categorical and hypothetical; the categorical into

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(1) **Form.**—They have been divided into irregular or enthymemes, and regular, or syllogisms; syllogisms into categorical and hypothetical; the categorical into

those of the first, second, third, and fourth figures; the hypothetical into the conditional and disjunctive; as in the following scheme:

- Arguments
  - I. Enthymemes
  - II. Syllogisms
    - 1. Categorical
      - 1st Figure
      - 2d Figure
      - 3d Figure
      - 4th Figure
    - 2. Hypothetical.
      - Conditional
      - Disjunctive.

This is evidently a division according to the *form* in which they may be stated, for any argument may be stated in any of the forms mentioned.

(2) Subject Matter.—Another division of arguments is into necessary or demonstrative, and moral or probable; thus:

- Arguments.
  - I. Necessary or demonstrative,
  - II. Moral or probable.

This is evidently a division according to the nature of the *subject-matter*. In mathematics, all arguments are necessary; in human affairs, they are generally only probable.

(3) Purpose.—Arguments are also divided into direct or indirect, according as the intention is to establish a given proposition, or to reduce a proposition to an absurdity.

- Arguments
  - I. Direct,
  - II. Indirect.

This is plainly a division according to the *purpose* for which the arguments are used.

(4) Arguments as Such.—The three schemes of division above mentioned do not divide arguments *as such*, but according to some peculiarity of form or use. Hence arguments may at once belong to all three classes. For example, the same argument may be a syllogism, necessary and direct.

In order to find a principle of division by which to classify arguments according to their essential nature, we must find wherein lies the essence of an argument. Arguments are distinguished from other propositions by *some relation between the subject-matter of the conclusion and the subject-matter of the proposition used as an argument.* A true classification of arguments will be a classification of the *kinds of relation* which may subsist between things. We find these kinds of relation to be three.

Let the conclusion to be established be, "It will rain to-morrow." What proposition can confirm this conclusion, or, in other words, serve as an argument to prove it? Clearly none whose subject-matter is not related to the production of rain. "The clouds are forming," would be such a proposition, because the forming of the clouds shows a *cause* which, if unimpeded, will produce rain.

Let the proposition be, "It has rained." What proposition will confirm this conclusion? "The ground is everywhere wet," would be a proposition whose subject-matter is related to the conclusion, since the general wetness is a *sign* or *effect* which requires rain as its necessary *condition*.

Let the proposition be, "Tyrants are selfish men." The proposition "Cæsar was a tyrant and a selfish man," would be an argument, because Cæsar is an *example* of tyrants, and the subject-matter of the two propositions is related by *resemblance*.

Causes, signs, and resemblances, are the only kinds of relation in the subject-matter by which a proposition can be established. The argument from cause is called the *a priori* argument. The arguments from

sign and resemblance are called *a posteriori* arguments. The division of arguments as such is exhibited in the following scheme:

Arguments. { I. *A priori.* / II. *A posteriori.* { 1. Sign. / 2. Resemblance.

These classes, with their subdivisions, will be treated more specifically in the following sections.

SECTION I.

A PRIORI ARGUMENTS.

1. Nature of the Argument.

The *a priori* argument is an argument from *cause to effect.* By the word *cause* is here meant *whatever would account for a fact,* if the fact were admitted. In this sense the word sometimes but not always indicates a physical cause. If we were to adduce the proposition "The sun's rays are most nearly vertical in summer," to prove that "The earth is warmest in summer," the logical and physical causes would coincide. If we were to claim that A B and C possess intelligence because they are men, the logical cause would be distinct from any physical cause, for A B and C are no more intelligent because they are men than they are men because they are intelligent. Yet, since the fact that they are men *accounts for, i. e.,* explains *why* they should be regarded as possessing intelligence, this is an *a priori* argument. The word *cause* is used in the popular sense.

2. Extent of Inference from a Cause.

When a cause is known to exist, we may infer from its existence any effect which it is capable of producing, unless impediments are presented to its operation. Thus, if a man is known to entertain a bitter hatred of a neighbor, and that neighbor is found dead, with obvious marks of assassination, suspicion may point to the hostile neighbor. If impediments to the operation of hatred as the cause of this murder, such as fear of punishment, the fear of God, a forgiving spirit, absence from the place, or some similar circumstances, cannot be shown, the suspicion will be very strong. In this case, however, *a posteriori* proofs would be needed for conviction, since *other* causes might have produced this effect, even if hatred be admitted as an adequate cause. Let the case be a purely physical one. Let the steam be turned on in a locomotive, and it is certain that the locomotive will move, unless impeded by too heavy a train, or some other mechanical preventive.

3. The Absence of Cause.

As from an existing cause we may infer its effect, so, on the other hand, the absence of a cause is proof that the effect will not follow. If a tree is known to be without vitality, it is certain that it will not put forth leaves and bear fruit. If a man has no motive to commit a crime, and no opportunity of performing it, we may infer that it should not be laid to his charge. It may not always be necessary to assign causes, when the *a posteriori* proofs are overwhelming, for *some* causes are beyond our discovery, although their effects prove that they exist.

4. The Degree of Connection between Cause and Effect.

The degree of connection between a cause and its

effect is measured by the probability of hinderance. As this probability of hinderance varies greatly, so must the certainty of an effect when its cause exists and is operative. Physical causes are more closely connected with their effects than moral or mental. If we know the level of a water course, we know with certainty in what direction the water will flow. If a man is known to hate his neighbors, it is by no means certain that he will injure them; for he may be deterred by many motives unknown to any one besides himself. Even threatened violence with an opportunity for its exercise, would not place an alleged crime beyond all doubt. Wherever the *will* is concerned, the connection of cause and effect is uncertain.

5. Probability Established by a priori Arguments.

Probability is shown by *accounting* for an event, or producing its *causes*. In poetry and romance, it is not necessary that the causes should be real, but they should be such as to account for the effects. In fiction, an important rule is, to relate only such incidents as can be accounted for by the causes shown to be operative. The explanation need not be given until the mind is lost in mystery, but it shows a lack of art to close a volume without having given to the whole an air of probability, or, at least, of verisimilitude. Future events rest wholly upon *a priori* arguments. Examples may, indeed, be used to establish the probability of future occurrences, but not directly. The example implies the existence of a *cause* which will be likely to operate again as it has in the given case. This cause then becomes an *a priori* argument.

6. Ambiguity of Causal Words.

Such words as *why*, *because*, and *therefore*, are ambiguous, since they may designate more than one kind of sequence. Clearness of thought in the use of *a priori* arguments requires a close distinction between these different senses. The word *why* for example, may inquire after the *physical* cause; as, "Why do thunder storms occur in summer?" the *logical* cause; as, "Why is the sum of the angles in a triangle equal to two right angles?" or the *final* cause or *purpose;* as, "Why is man filled with aspirations after immortality?"

SECTION II.

ARGUMENTS FROM SIGN.

1. Nature of the Argument.

The argument from *sign* is an argument from an *effect* to a *condition*. An effect implies the existence of some condition so connected with the effect that the existence of the condition may be inferred from the existence of the effect. For example, a man is found with a bloody dagger in his hand, and another man is found near by stabbed to death. The possession of a bloody dagger is an effect implying some *use* of the dagger as its condition. If no other condition than a *murderous* use of the dagger can be suggested, the possessor of the dagger is proved to be the murderer. If another use of the dagger is avowed, guilt must be determined by the balance of probability that the *murderous* use, and not the *alleged* use was the condition.

If a condition be absolutely essential to the effect, the existence of the effect is demonstrative proof of the condition. If a watch were found in an unpopulated island, it would be *demonstrative* proof that it had been carried there, that being the necessary condition of its being there. The presence of the watch would be ***probable*** evidence that a man had been there, but not ***demonstrative***, for other conditions are supposable, such as the wreck of a vessel, and the drifting of some portion to the island.

2. The Calculation of Chances.

This leads us at once to the doctrine of chances, since it is often necessary to decide between several possible conditions, one of which must be inferred from the given effect. In the case above cited, a sophist might ask, what is the objection to the supposition that the watch was always on the island, was, in short, the product of unconscious natural forces? Men have reasoned similarly about the fossils of extinct animals. They have asked why these objects may not have been produced just as they are, and for no distinct purpose. The obvious answer is, they show marks of *design*. But the elements of these fossils or of this watch, apparently adjusted with so much skill, must exist in *some* form, why not in this? There are as many chances against one form as against any other given form. The solution of this difficulty lies in the fact that such reasoning presents a false alternative. The proper comparison of chances is not between this arrangement of particles in the watch and some other determinate arrangement, but between the probability of the watch being the product of unconscious forces and the probability of its being made by a man and brought to the island in some way. The comparison of chances in the case of the fossil is not between this arrangement as opposed to another, but between the probability that it was formed for *no purpose*, and the probability that it is the *remains* of some animal.

3. Proof of a Cause.

Among conditions, some have no causal connection with a phenomenon, others have such a connection. To use Whately's illustration, if a man dies to-day, we may infer that he was alive yesterday. His being alive yesterday, however, while an essential condition of his dying to-day, has no *tendency* to produce his death to-day. Some conditions have a causal relation to the effect. If the man dies to-day, some antecedent must be supposed to have produced this effect. It is impossible to prove any condition *as a cause* from the effect alone. A cause may prove an effect, if there are no hinderances, although there may be other causes; but the cause cannot be inferred from the effect, for it can never be certain that the cause supposed to be proved is the *only* or *operative* cause. Practically the cause may be inferred from the effect with sufficient probability to establish conviction when the essential condition seems to be only *one*. In that case, since every effect must have a cause, we infer that the sole condition must be the cause. But this proof is not demonstrative, for the true cause may be different from the supposed cause, and yet escape our detection.

4. Testimony.

Testimony is a kind of sign implying as a condition of its existence the truth of the fact attested. The

laws of motive render it probable that testimony would not be given if the attestation were not called forth by fact. The same law leads us to infer the possibility of a different condition, as incompetency, falsehood, etc. In every case where testimony is used as an argument, we must decide between the truth of the attestation on the one hand, and the incompetency or corruption of the witness on the other. The decision of such questions requires us to attend to several particulars affecting the value of testimony.

(1) The Number of Witnesses.—The greater the number of witnesses, other things being equal, the greater the value of the testimony. The number, however, is frequently overestimated, as when men bear witness to the truth of certain doctrines of religion and science. Having never given these a personal investigation, their testimony is not really to the truth of these doctrines, but to the fact that they are held as true.

(2) Character of Witnesses.—The moral and intellectual character of the witness is important to the value of the testimony. A man may be so deceived as to believe that to have happened which in reality never occurred. Dr. Whately regards the testimony of ignorant and prejudiced men as especially valuable when it attests things too abstruse for them to invent, or contrary to their prejudices. The testimony of the disciples of Jesus, though coming from comparatively ignorant men, is not the less valuable since they testify to facts which they had not the ingenuity to invent, and to doctrines contrary to all their Jewish prejudices.

(3) Concurrent Witnesses.—Concurrent testimony is especially valuable if there has been no opportunity

for collusion. Too close concurrence, however, leads to the suspicion of previous conference, and the invention of a tale. The testimony of different witnesses who have observed the same transaction ought to present differences of detail from their having occupied different points of view, and from their subjective modification of the facts, as well as from observing at slightly different periods of time. The slight difference in the stories of the evangelists with reference to the garment worn by our Saviour at his crucifixion, is confirmatory of their trustworthiness as witnesses. The difference may naturally be accounted for either by the different times of day when the observations were made, or by an optical difference not uncommon, or, perhaps, both. The divergence of statement is proof that there was no collusion.

(4) Adverse Witnesses.—Adverse testimony is usually incidental, as in the Jewish work called the "Generation of Jesus," which refers the miracles of Jesus to magic, thereby admitting their actual performance. Such evidence will generally be found in some minute detail, but the intrinsic insignificance of the circumstance is no measure of its value in an argument. Much skill in cross-examination may be necessary to draw out the testimony of an unwilling witness, or to show the inconsistency of his story. Dr. Whately cautions against brow-beating a witness, and sums up the whole philosophy of cross-examination in the forcible sentence: "The more the storm blusters, the more carefully he wraps round him the cloak which a warm sunshine will often induce him to throw off." *

* *Rhetoric*, Part I., Chap. ii.

(5) Character of Facts Attested.—We need to distinguish sharply between matters of fact and matters of opinion. Witnesses almost invariably mingle their own opinions and explanations with the facts actually observed. Testimony as to matters of fact is valuable when the witness is *honest* and has *sound senses*. Testimony to matters of opinion requires *intelligence*, or the ability to form a judgment, in addition to honesty and sound organs of perception. Any thing beyond the natural expectations of the witness, and so not likely to enter his mind except by the actual occurrence, is of additional weight on that account. So the omission from a story of what would naturally occur to a fabricator, is indicative of truth.

(6) The Denial of Testimony.—To deny the story of a witness is to believe that he has invented it, or is deluded. Here we need to remember that belief and disbelief are the same mental state with regard to contradictory propositions. The proper opposite of belief is *doubt*, or indecision. To reject testimony is, therefore, to affirm that some other condition than truth must be inferred,—invention, or misunderstanding.

5. Authority.

The opinions of competent men are often used as an argument, and in this case the argument is called proof from authority. Authority is a kind of sign, since its existence supposes the truth of what is asserted as a condition of the assertion's being made. Thus, in legal decisions, the ability and honesty of the judge, and the careful advocacy of both sides by competent lawyers, assure us that the decision would not have been what it is, unless truth and law required it

to be so. Quotations from the Scriptures, precedents in law, the opinions of philosophers, and the decisions of physicians, are all valid arguments in their respective spheres, because their existence implies truth as the condition of their being what they are. The multiplicity of facts and the preoccupation of men with their special lines of investigation, render authority a chief source of conviction in departments of thought lying without our range of personal observation. Our religious, political, and philosophical doctrines, usually rest on this kind of proof.

6. The Progressive Argument.

Another kind of argument belonging to the class called sign, is "the argument from progressive approach." It consists of a series of signs, each one of which proves more conclusively than the preceding that a certain condition exists. If we roll a ball along the floor, it ceases moving after it has rolled a short distance. We may infer from the effect, that friction and gravitation and the resistance of the air retard it, and that if these retarding causes were removed, it would roll on forever. We roll a smoother ball over a smoother floor, and the duration of its motion is increased. If we continue to diminish the resistance as much as possible, the duration of the motion increases in proportion to this diminution. A succession of signs satisfies the mind that if these means of resistance were entirely removed, a body with a given momentum would move on forever with undiminished velocity. This argument may be applied to moral as well as to physical cases. Bishop Butler has employed it in the "Analogy" to show the inherent power of virtue.

SECTION III.

ARGUMENTS FROM RESEMBLANCE.

1. Nature of the Argument.

The argument from resemblance rests upon the constancy of nature. It has no validity except upon the ground that what is true in a certain case or cases will be true in other similar cases. It is evident that this argument is liable to great abuse, owing to the difficulty of deciding what cases are essentially similar. If it be true that like cases are owing to like causes and produce like effects, it is equally true that unlike cases are not referable to like causes, and are not productive of like effects. Hence the value of the argument depends wholly upon the detection of essential resemblances.

2. Essential Resemblances.

In order to test the validity of arguments founded on resemblance, we must have some criterion by which to distinguish between important and unimportant resemblances. It is not necessary that the cases should correspond in *every particular*. Men may belong to different nations, engage in different pursuits, and have different habits of life, yet they possess certain qualities in common with all men, and so far as they resemble one another what is affirmed of one may be affirmed of another. Sophists are ever ready with the objection that the cases differ in *some* respects. They may differ in *all* respects except *one*, and still the argument from resemblance may be valid. Again, the cases may resemble each other in every particular except one, and still the argument from resemblance may be invalid. The essential point is, *are the similar features owing to the same cause?*

Let us take, for example, the proposition, "All tyrants are selfish." We may adduce as an argument the proposition, "Cæsar and Napoleon were selfish." Here the resemblance between "all tyrants" and "Cæsar and Napoleon" is the basis of the argument. Tyrants may differ in many personal qualities, in nationality, and in the age in which they live. They resemble one another, however, in one important point, *the desire of controlling others*. If this distinctive point of resemblance be referable to *selfishness* as its sole cause, *i.e.*, if tyranny be an effect of selfishness, it is clear that all tyrants are selfish, for selfishness is the cause of their being tyrants. Arguments from resemblance are but *probable*, for they are valid only in so far as they prove a common cause, but the proof of a cause is never more than probable. The degree of probability depends partly upon the closeness of connection between the cause and its effect. As in *a priori* arguments, physical causes and effects are more closely connected than moral causes and effects.

3. Example.

(1) Nature of Example.—Among the varieties of argument founded upon resemblance, the simplest, and, perhaps, most common is example. The logical analysis of this argument is as follows. We assume, as a major premise, that whatever is true of the case adduced as an example, is universally true in like cases. In the minor premise we assert something to be true in

the example. In the conclusion we infer that what has been asserted is true of all like cases. Using this conclusion as a major premise, we assert in the minor that an individual case belongs to the class mentioned in the major, and our conclusion is, that the assertion in the major applies to the individual case.

(2) Invented Examples.—Fictitious cases are often adduced as arguments. They are legitimate in proportion to their verisimilitude. Aristotle cites an instance of invented example used by Socrates, in which the latter shows the absurdity of choosing magistrates by lot by the folly of selecting a pilot in the same manner; since, if the lot fell on an unskilled person, it would probably result in the loss of the ship. Although only a supposed case, this example has considerable force. This force is wholly derived from its *general* truth; *i. e.*, it is such a case as *might* arise, and if it should, the relations of cause and effect would be as represented.

(3) Illustrative Examples.—Examples are frequently used merely as illustrations, not to confirm but to explain a proposition. Illustrative examples affirm nothing more than a resemblance, argumentative examples affirm a common cause of which the resemblance is the effect. Hence it is unfair to treat mere illustrations as if they were designed as arguments. Fables and legends are frequently employed as embellishments of discourse, or to explain the general meaning. It is sophistical to attack these as unreal, as if the truth of the main proposition depended upon the truth of the illustrations. It is fair and important, however, to point out the fact that these explanatory examples have no argumentative force, and

should be taken, not as instances of the general truth alleged, but as supposed consequences of it. In this case the truth of the examples presupposes the general truth, and hence it would be arguing in a circle to prove the law from supposed instances. Suppositions illustrate, but prove nothing.

4. Induction.

If we stop at the general conclusion of the first syllogism in the illustration of example, the argument is called induction. The cases from which the conclusion is drawn may be one or many, according to the nature of the subject-matter. In physical investigation, one experiment may be sufficient to establish the conclusion. If, for example, a substance turns blue litmus paper red at the first trial, the chemist is satisfied that the substance possesses acid properties. If five men have died in a certain town on five successive Saturdays, it would be a hasty inference to lay it down as certain that some citizen of that town will die on every following Saturday. As in the argument from example, we must eliminate as far as possible what is accidental, and determine what is essential and causal in the similar cases. This is done in several ways.

(1) The Method of Agreement.—When two or more phenomena are uniformly associated, as a surface colder than the surrounding air and the production of dew, we infer that one of the associated phenomena is the cause of the other. There is great danger of error in the use of this method. Thus misfortune and piety may be associated uniformly in the enterprises of a man, but it would be fallacious to make the one the cause of the other, on that ground alone.

(2) The Method of Difference.—When a phenomenon A is not associated with a phenomenon B, but is uniformly associated with a phenomenon C, we may infer that A is caused by some difference between B and C. When that difference lies in a single particular, that particular may be regarded as the cause of A, if it be of a causal nature. If, for example, times were hard under one administration of the government, and prosperous under a new rule, with no difference in the state of affairs except that a change had been made in the financial system, the new rule would properly be regarded as the cause of prosperity. This is the method of difference. This also is liable to sophistical uses. The failure to detect any other difference than the change may be owing to the limitation of our faculties or our facilities for knowing. A common laborer may be led by a demagogue to attribute to a new administration what is really owing to some other cause, as a good crop, or a demand for labor occasioned by a new discovery.

(3) The Method of Residues.—If we carry out the method of difference as far as possible by removing one condition after another until one remains, we may regard the remaining circumstance as the cause. If we wish to find the cause of a man's failure to perform a certain piece of work, we may show that his failure was not for want of help, for help was given; nor of time, for there was sufficient time; nor of ability, for he was fully capable; nor on account of sickness, for he was in good health; nor because of preoccupation, for he was at leisure; nor from forgetfulness, for he was reminded at the time; nor from indolence, for he was fond of labor; we may infer that it was very probably

unwillingness. This, however, cannot be inferred unless every other equally probable supposition has been excluded. This is called the method of residues.

(4) The Method of Concomitant Variations.—If now we vary the circumstances, so as to produce gradations of a phenomenon, we have the method of concomitant variations. If it be shown that the higher we raise the temperature of a mass of iron the more space the mass occupies, we conclude that heat expands iron.

By these methods we determine whether or not a particular fact exists, and whether or not certain particular facts are similar. By induction we infer that these particular truths are universal. No real induction is formally valid. In affirming that what is true of a part is true of the whole we transcend our actual knowledge, and hence may fall into error. The four methods above are intended to reduce this possible error to its minimum.

5. Analogy.

The argument from analogy is founded on a resemblance of *relations*, while ordinary examples are founded on a *direct* resemblance. There is an analogy between the human heart and a great city, and hence it has been argued that when the size of a city is greatly increased its functions are impaired. The argument for the inhabitation of the planets is of this kind, since they resemble the earth in their general relations, though not in all particulars. The argument from analogy has great force in winning the assent of superficial thinkers, but its logical analysis reveals the danger of depending upon it, unless confirmed by collateral proofs.

SECTION IV.

THE CONDUCT OF A DISCUSSION.

Argumentation, unlike the other elementary forms of discourse, admits of two sides, and implies mental conflict. The conduct of an argumentative discussion requires skill in addition to a knowledge of the different classes of arguments. We shall, therefore, in this section consider those principles of argumentation which govern the enforcement of our ideas when they are exposed to opposition. This subject naturally falls under the following heads: (1) the PREPARATION OF THE QUESTION; (2) the INTRODUCTION; (3) the CONFIRMATION OF THE THESIS; and (4) REFUTATION. These will now be treated in their order.

I. *THE PREPARATION OF THE QUESTION.*

1. Necessity of Preparation.

The importance of attending to the form of the proposition to be proved is equally great whether it is to be discussed affirmatively and negatively by different persons, or is to constitute the theme of a single speaker or writer. It is not necessary that the proposition be formally announced at the beginning. If it be offensive or insignificant, its announcement should be withheld until the facts and arguments have removed the prejudices against it. But if the proposition to be proved be laid down in the author's mind in the beginning, and be steadily held in view throughout the discussion, it will insure the absence of what is irrelevant, and impart to the whole train of argument the character of coherence and adaptation.

2. Exposition.

When the proposition is laid down, it should be carefully studied, in order to satisfy the mind that it is just what is meant to be asserted, and that we are prepared to establish precisely this proposition and not another allied to it. Debate is frequently rendered unnecessary by mere exposition; the apprehension of the real meaning putting the question beyond all doubt. When the proposition is perfectly clear, a formal and avowed exposition of it is unnecessary. All ambiguities and special senses should be explained in the beginning. If the proposition is to be debated, it should be stated in the form of an affirmative resolution. The advocate of the affirmative assumes the burden of proof, and until arguments are advanced in confirmation of the proposition, none are needed in refutation. Much has been written on "presumption and burden of proof." The simple and universal rule on the subject is, that the burden of proof always lies with the affirmative. This rule is founded on the self-evident principle that no one should be bound to prove a negative.

3. Concession.

In the exposition of any question it will be seen that there are certain facts which both sides admit. These should be eliminated from the discussion by a concession of their reality. Silence is often interpreted as concession. Care should be taken to deprive an opponent of the right to claim such a concession. A

topic may be waived, with the express promise to consider it at another time. This may properly be done, as it may not be possible to put the topic in its true light until certain facts and arguments have been presented. Sophists frequently waive a subordinate but important proposition, and evade any farther consideration of it, or finally claim that it is unnecessary.

4. Contrary Opinions.

It is often advisable to state contrary opinions at the beginning. There are several advantages in this, belonging to different cases. When the only alternative opinion is manifestly absurd, the statement that it is the *only alternative* will win favor for the proposition maintained. When there are other alternatives besides the one assumed by our opponent, a statement of that fact has the effect of leading to the belief that if we are wrong, our opponent at least may not be right. Other theories may have to be cleared away before our own can be established. Burke begins his work on the "Sublime and Beautiful" by showing that beauty does not consist in "adaptation," "proportion," or "perfection."

II. *THE INTRODUCTION.*

1. Design of an Introduction.

An introduction is not an essential part of a composition. Its very name implies that it is preparatory to something else, which is complete in itself, but needs to be brought into relation with the time and occasion. Hence Cicero's rule was, to compose the introduction

after he had finished the composition. Mere generalities are thus avoided, and the introduction is made truly subservient to its end. Although the *attention* needs to be stimulated less than at any other part of a discourse, since all attend to the first few words, it is desirable to arouse *interest* by the character of the introduction.

2. Kinds of Introduction.

Adaptation to its purpose requires that the introduction vary with the character of the composition. A few varieties are enumerated by Dr. Whately which readily suggest others.

(1) Inquisitive.—The inquisitive introduction aims to arouse interest by asking some question, or showing the importance of what is to be treated.

(2) Paradoxical.—When one is perfectly sure of his proofs, it may stimulate interest to state the conclusion to be reached in some paradoxical way, or to represent it as strange or unusual.

(3) Corrective.—It may be well to show that the subject has been misunderstood, neglected, or misrepresented, and should therefore engage the attention. This may be called the corrective introduction. It is particularly appropriate if the subject be a trite one.

(4) Preparatory.—It is sometimes necessary to guard against some mistake, explain some peculiarity in the discussion, or account for some deficiency. This has been called the preparatory introduction.

(5) Narrative.—It is often desirable to inform the reader or hearer of some event, or to describe some state of affairs, necessary to be known for the comprehension of what is to follow. All historical questions

require an introduction of this kind. This is the narrative introduction.

Two or more of these forms may be combined.

III. *CONFIRMATION.*

1. The Uses of the Different Classes of Arguments.

When the thesis has been laid down, formally or mentally, we need to confirm it by such arguments as are best suited to its nature. The uses of the various arguments will, therefore, now be considered.

(1) A Priori.—The *a priori* argument is used to *account* for a fact, and to establish *future events.* As has been shown, we may infer an effect from the existence of a cause, proportionately to the tendency of the cause to produce the effect. In this way past events are explained, and future events are anticipated.

(2) Sign.—The argument from sign is used to establish a fact after its occurrence, or as a general truth. Thus murder could be proved by testimony, or by circumstantial signs, such as blood on the hands, possession of an identified weapon, an effort to conceal one's self, etc. A general truth may be proved by authority; as, for example a legal or religious doctrine.

(3) Resemblance.—Arguments from resemblance are less certain than the preceding kinds, but often quite as satisfactory to minds predisposed to the conclusion. They are most useful in showing the *consistency* of an alleged fact. Induction is the means of establishing new *general* truths, as in the sciences. Future events are inferred from examples, but always on the assumption of a common cause uniformly acting.

2. The Arrangement of Arguments.

(1) Importance of Arrangement.—As in the military art, so in composition, arrangement is of the greatest importance. If one were to attempt to prove that a miracle had been performed without giving any reason why it should be, the proofs would need to be very strong in order to be satisfactory. If, however, it be first shown that a revelation might be expected from a benevolent deity, and that it could not be confirmed without miracles, much less proof would be necessary. In the contest between Æschines and Demosthenes concerning the crown, the former requested the judges to require the latter to adopt the same arrangement in his reply as had previously been chosen by his adversary. Demosthenes rightly claimed that this demand was unfair, and chose his own order.

(2) Order of Arguments According to Kind.—It is plain that *a priori* arguments ought to have the precedence, since they render natural what might otherwise seem improbable. A theory of the causes cannot always be given, but it is desirable that a fact be accounted for. *A posteriori* arguments, or positive proofs of the facts, are then received with less hesitation. The argument from cause may not be sufficient. It does not follow because a phenomenon *might* occur, that it actually *did* occur. When antecedent probability has been established by arguments from cause to effect, arguments from sign and resemblance may be added to show that the causes alleged were actually operative, and did produce the alleged effect.

(3) Order of Arguments According to Strength.—The most *obvious* arguments should come first, yet not

in such a way as to bring the *weakest* first. The Nestorian arrangement of troops, with the weakest in the middle, suggests an advantageous order of arguments. It avoids anti-climax, and at the same time opens the discussion with a strong argument. An inverse recapitulation of the arguments also obviates the effect of anti-climax, when in the original order the weakest comes last. A mere mention of the weak arguments at the beginning, with the statement that you do not rely upon them or mean to use them, may often prove effective.

(4) Proving by Installments.—Sometimes it is necessary to divide a proposition into several, and to prove each of these by itself. If Paley in his Evidences had proceeded at once to prove that we ought to believe the statements of the Scriptures, his argument would have been unnecessary in the view of believers, and probably inconclusive in the view of skeptics. He proves several propositions which together establish his main proposition, and thus the discussion is made entertaining to believers and conclusive to many who were skeptical. His successive propositions are as follows :—

(*a*) The apostles *suffered.*
(*b*) They suffered *knowingly.*
(*c*) They suffered *for* their testimony.
(*d*) They testified to *miracles.*
(*e*) The miracles were the *same* as are recorded in the New Testament.

IV. *REFUTATION.*

Refutation consists in overthrowing arguments and objections opposed to the thesis which we wish to confirm. Several particulars with reference to its management are of great importance.

1. Modes of Refutation.

A conclusion can be combated in two ways ; we may prove its contradictory, or we may overthrow the arguments by which it has been supported.

(1) Proving the Contradictory.—Since contradictories cannot both be true, it is a practical refutation of an argument to prove the contradictory of its conclusion. This is often easier than to detect and exhibit the fault of an opposing argument. In this way writers who know nothing of each other's works may refute each other's statements. While important and often sufficient, this mode of procedure is not specifically refutatory.

(2) Overthrowing Arguments.—Refutation, in its specific sense, means the overthrow of an opposing argument. This overthrow may be accomplished in two ways : we may deny one of the premises, or show a fallacy in the process of reasoning.

We may deny the premise when it is false. The false premise is generally suppressed, and the argument stated as an enthymeme. A syllogistic statement of the argument will generally reveal the falsity of the suppressed premise, and this may then be pointed out. The deistic argument against the divine authority of Moses may be stated thus:

Major, A divinely appointed lawgiver would certainly reveal the doctrine of immortality ;

Minor, Moses does not mention it ;

Conclusion, Moses was not a divinely appointed lawgiver.

The deistic argument, *as stated by its advocates,* suppressed the major premise, which was supplied by Warburton,* who denies its truth, and thus refutes their argument.

One way of showing the falsity of a premise is to make it a premise of a syllogism in which the other premise is an admitted truth, and hence to draw an absurd conclusion. This proves the falsity of the premise taken from the opposing argument, for in a correct syllogism there is no alternative except to deny a premise or accept the conclusion. The conclusion cannot be accepted for it is absurd, the supplied premise cannot be denied for it is an admitted truth; hence the opponent's premise must be false. The conclusion of an opponent may be made a premise and proved false in the same manner. This is called the indirect argument, or *reductio ad absurdum.* It is particularly adapted to controversy on account of its irony, and power to turn the laugh on an opponent. It is said of an argument which can be thus answered, "the argument proves too much," since, if true, absurdities would logically follow from it. In his "Defence of Natural Society by a Late Noble Lord," Burke, feigning to accept the principles of Bolingbroke, makes the arguments brought by the latter against ecclesiastical institutions overthrow civil society as well, thus showing that the arguments prove too much.

The detection of fallacies in the reasoning is a purely logical process. If a fallacy exist, it will be found by running over the list of fallacies given in Logic, and testing the argument with respect to each. When the fallacy is seen the simplest refutation is the

* *Divine Legation.*

construction of a parallel case in which the logical fault will be evident to all.

2. Treatment of Objections.

Objections may be offered which are not expresse in the form of arguments. In order to exhibit their argumentative value they should be thrown into a regular syllogistic form. If this be impossible, the opponent may be challenged to show the bearing of his objection; if it be exhibited as a syllogism, its answer will be more readily suggested. Several rules of a special character deserve attention in the treatment of objections.

(1) Valid Objections on Both Sides.—There may be valid objections on both sides of a question. If two armies are contending, one advocate may rightly urge the superior skill of his friends, another may claim the superior equipment of his friends, as reasons why each should be victorious. Both sides here have reasons for expecting victory, both sides are met with objections, and no logic but the logic of events can decide between the opposing claims. Even in physical science such objections may exist on both sides. There are objections to the infinite divisibility of matter, and objections to the contradictory doctrine. These difficulties often grow out of the limitation of our faculties and the relativity of our knowledge. Valid objections should be candidly explained as referable to such a deficiency in our powers or our knowledge.

(2) Decisive Objections.—Objections to our views may be offered which are not only valid, but really decide the question at issue. Such objections should be acknowledged as final. It is more expedient, to say

nothing of the ethical quality of the action, to acknowledge error than to resist palpable truth. No one believes in our infallibility when we are not moved by obvious truth, but a confession of error inspires confidence in one's honesty of purpose. There is sometimes a sophistical acknowledgment for no other purpose than the establishment of a reputation for fairness.

(3) Statement of Objections.—If objections are not stated in their full force, there is danger of producing the opinion that we either underestimate the full force of the opposing statements, or are not prepared to meet them. On the other hand, it is still more unfair, if not so inexpedient, to overstate objections, making them appear to be made against more than they really oppose. Thus a person who objects to a certain *interpretation* of the Scriptures is often represented as rejecting the *authority* of the whole book. Those who object to certain *modes* of public trial and punishment are sometimes answered as if they rejected *all* administration of justice.

3. Cautions concerning Refutation.

The attempt to satisfy other minds that our ideas alone are correct is attended with some special dangers.

(1) Too Forcible Refutation.—A violent attack upon some objection or argument may magnify unduly its importance. When a man lays aside his coat and makes great preparation for labor, it leads us to suppose that he is impressed with the magnitude of his task. A debater may easily give his auditors a similar impression by laboring too obviously to overthrow an objection.

(2) Too Great Clearness.—If any new proposition

be established too clearly, it may create surprise that any one could ever have doubted it, or that wise men should have failed to discover it, or that so able a man as your opponent could possibly dissent from it, and hence it may be concluded that there is some subtile fallacy in your argument, which it is difficult to detect.

(3) Prior Convictions.—This will be more likely to be the case if the persons addressed have themselves strongly held the opinions controverted. They are unwilling to believe that they have been so long embracing nonsense without knowing it. It is more natural to conclude that the speaker or writer is either ignorant of some fact, or that his argument is fallacious.

(4) Accusations.—This feeling reaches its height and is accompanied with indignation when a direct charge of criminality or imbecility is made against those who hold the opinion refuted. Men who have been actuated by right motives in holding these views, and there are generally some such in every sect or party, know the unfairness and untruthfulness of these charges. They, at least, did not hold the opinions condemned, from any other than pure motives, and they do not believe themselves wholly stupid. They, therefore, prefer to regard their calumniator as a foe, whose arguments they may not answer, but whose conclusions they indignantly repel.

(5) Weak Arguments.—When the arguments to be refuted are excessively weak, it is often difficult to make them appear more foolish than they seem to be, without a direct charge of absurdity. As such arguments are usually advanced by such persons as are not really convinced by them, but who must say something,

they are not likely to convince any one else. If they are answered by really strong arguments, they will have no force with the candid, and to others the most successful refutation will be of small account, for

> "One convinced against his will,
> Is of the same opinion still."

(6) Accessible Authorities.—It is generally best to use only those authorities which are accessible to the class addressed. Appeals to writers in other languages and to unknown philosophers will have very little weight, if the opponent chooses to deny that the citations apply. People holding different views from those maintained suspect subtlety when a reasoner sets aside the received translation of the Scriptures, and attempts to expound the original. However necessary this may be in order to arrive at truth, this procedure is looked upon as a resort of one whose views are not confirmed by the received version, but who can wrest the original to his purpose without the risk of detection. None but recognized scholars are safe in attempts of this kind, and even they are less liable to misconstruction when they are addressing those competent to understand their exposition. These remarks are not so fully applicable to those who are addressing persons who are already convinced.

(7) Place for Answering Objections.—Whately advises placing the answer of objections in the middle of the argument, but nearer the beginning than the end. He says on this point: "If indeed very strong objections have obtained much currency, or have been just stated by an opponent, so that what is asserted is likely to be regarded as paradoxical, it may be advisable to begin with a refutation; but when this is not the case, the mention of objections in the opening will be likely to give a paradoxical air to our assertion, by implying a consciousness that much may be said against it. If again all mention of objections be deferred to the last, the arguments will often be listened to with prejudice by those who may suppose us to be overlooking what may be urged on the other side. Sometimes indeed it will be difficult to give a satisfactory refutation of the opposed opinions, till we have gone through the arguments in support of our own; even in that case, however, it will be better to take some brief notice of them early in the composition, with a promise of afterwards considering them more fully, and refuting them." *

* *Rhetoric.* Part I, Chap. iii. § 7.