QUANTITY

intensive quantity (cf. INTENSITY AND INTENSIVE MAGNITUDE). For here we seem to have a difference of more and less without any relation of whole and part. For instance, a sound of a given degree of loudness does appear to be composed of partial loudnesses, and it seems meaningless to speak of a lower degree of loudness as conceivably included within or substituted for part of a higher degree of loudness. We may, indeed, consider intensive quantity as immediate experience, falling under definitions (1).

The notion of intensive magnitude may, however, be regarded as implicating parts, though some of these are separately distinguishable within the whole. In this it differs from a continuous extensive quantity. For in a continuous extensive quantity we can distinguish and count an indefinite number of parts. The continuity consists in the fact that however many parts we distinguish, there are still other parts undistinguishable. For each assignable part is itself undistinguishable from others. In the intensive magnitude, on the contrary, there are no assignable parts at all. Nor less, it may be maintained, that though not separately distinguishable, they may be supposed to exist, and that the supposition is implied in speaking of an intensive quantity at all. The only assignable alternative seems to be the denial that what is called an intensive quantity is a single, undivided entity, if we consider it by itself, apart from comparison with other similar presentations.

From this point of view it may be held that what is called intensive quantity presupposes the serial arrangement of the terms according to their degrees of resemblance and difference. It is not the separate sensations but the interval between them in the series, which is quantitative. Suppose that we are considering, instead of two sounds, two pairs of opposite sensations, it is not the distinctive parts but the interval between them that is the quantitative. There was a mathematics of music.

(2) In the general modern sense, quantity is understood to include both intensive and extensive quantities.

Quotation is the notion of similarity of situation. It is very important to understand that similarity is a central concept of the logic of relationships, and that a system of relative ordinal relations in a linear series.

Each complete determination of quantity in a given system is a "value." Quantity is either counted or measured. Counted quantity may have a finite multitude of values. Of systems of quantity of the same magnitude, the simplest is that of the absolute. There are systems of quantity such as is the order of magnitude of a man, which are in their order of quantity of more counting.

(3) Concepts, or terms, are, in logic, conceived to have subjective parts, being the narrower terms in which they are divisible, and divisible parts, which are the higher terms of which their definitions or descriptions are composed; their relationships constitute "quantity."

This double way of regarding a class-term as a whole of parts is remarked by Aristotle in several places (e.g. Met., A. xxviii. 1025 b 22). It was familiar to logicians of every age. Thus Sextus Empiricus calls eros, the love of animals, in general, the same as the love of a man; in general, the love of a man, in general.

When this has the effect of diminishing the breadth of a term without increasing its depth, the change is called reduction; but when, by an increase in real information, a term gains breadth without losing depth, it is said to gain extension (q.v., in logic).

This is, for example, a common effect of induction. In such a case, the effect is called generalization (q.v.). A decrease in the number of cases to which a rule is applied is another example of effect of diminishing the depth of a term without increasing its information. This is often called abstraction; but it is so called by contrast to its opposite; for the word abstraction is wanted to express the designation of some principal or essential predicate, as in the expression "the abstraction of humanity from humanity and difference;" and as was so called to denote a short chapter (v) to the effect that a predicate of an essential predicate, i.e. a predicate not designated by an expression of the form of a "the abstraction of humanity from humanity and difference;" and it is so called to denote a short chapter (v) to the effect that a predicate of an essential predicate, i.e. a predicate not designated by an expression of the form of a. The word "abstraction" is here employed because this logic regards the quantities as belonging to propositions and to arguments, as well as to terms. A distinction of extensive and comprehensive description is made clear by the modern logic of reasoning.

SYNTHESIS is sometimes regarded as the mathematics of a system of quantities consisting of but two values, truth and falsehood.
QUANTITY — QUINQUE VOCI

(5) The quantity of a proposition is that respect in which a universal proposition is regarded as asserting more than the corresponding particular proposition: the recognized quantities are UNIVERSAL, PARTICULAR, SPECIFIC (see those terms in logic), and—opposed to these as "definite."—Indefinite. Quantity is used in this sense by Aristotle.

Quantification of the Predicata. The attachment of signs of propositional quantity to the predicata of simple propositions is called by this name. The dictum de omnibus defines the relation of subject and predicate, so that "Any x is y" is to be understood as meaning: "To whatever a is applicable, b is applicable." But this definition must be modified, in order to give any room for a quantification of the predicata. If then we are to take all and some in their proper distributive senses and not in collective senses, to say that "Every man is every animal" would, as Aristotle remarks, be absurd, unless it were meant that there was but one man and one animal, and that that one man was identical with that one animal. This system has never been proposed. But Hamilton, with his followers, T. S. Baynes and Coleridge, take the modes of quantity in a collective sense. They thus have, as one of the propositional forms, "Some man is not some animal," which precisely denotes "Every man is every animal," in the distributive sense, and is entitled to an equal standing in logic. It does not imply "All man is all animal," in the collective sense of these logicians. This system had some vogue in its day.

De Morgan's system of Quantification. This permits the retention of the dictum de omnibus, merely applying propositional quantity to the subject. We thus get the following eight forms of proposition:

1. To whatever a is applicable, b is applicable.
2. To whatever a is inapplicable, b is inapplicable.
3. To whatever a is applicable, b is inapplicable.
4. To whatever a is inapplicable, b is applicable.
5. To whatever a is applicable, b is inapplicable; i.e., to something to which b is applicable, a is inapplicable.
6. To something to which a is applicable, b is inapplicable.
7. To something to which a is inapplicable, b is applicable.
8. To something to which a is inapplicable, b is inapplicable.

QUANTITY (in physics). A magnitude which admits precise comparison or measurement. Usually limited to concepts expressed by algebraic symbols. Cf. the other topics QUANTITATIVE, also VALUE (in mathematics). (n.)

Quantum (Lat.). Determinate Quantity (q.v.).

Quinque. A designation of the QUANTITATIVE TERMS (q.v.) from its introductory words Quinque voces, whatever will. (a.d.)

Quindecim. (Lat. quindecim, fifteen). A form of MAYS (q.v.) which lays emphasis upon the passive and receptive attitude of the human spirit in relation to the influx of the divine Spirit, and making little or nothing of activity in religious matters, whether ceremonial or devotional, in all of contemplation.

It made the Sabbath a symbol of rest in God. Its aim was the absorption of the practical personality in God. Its chief representatives are Aquinas, Saerl, and Maimon. The influence of the latter, a Spanish priest, was considerable in the Roman Catholic Church. Of Patristic Philosophy, as fin., also C. Thomas (philosophy of). This continued it until it was condemned by the pope in the reign of Innocent. Madame Guyon is the chief literary representative. It is nothing akin to QUOTATION (q.v.) and to the religious-philosophy of the Friends.

Quinque voces: see PREHABITABLE.