of the understanding, according to Kant (*Krit. d. reinen Vernunft*, 1. Aufl., 76).

Metaphysical necessity is that of God's existence.

Simple = *absolute necessity*. See above.

The adjectives by which different kinds of necessity are usually distinguished include absolute, antecedent, causal, comitant, composite, consequent, deductive, disjunct, disjunctive, external, formal, hypothetical, immediate, internal, logical, material, mediate, metaphysical, modal, moral, physical, practical, predicative, prime, simple, teleological, unconditional. (C.S.P.)

Necromancy: see MAGIC.

Need [AS. *nyd*]: Ger. *Bedürfniss*; Fr. *besoin*; Ital. *bisogno*. A constitutional or acquired craving or want, either bodily, revealing itself also in consciousness, or mental.

Needs are deep-seated demands of nature; appeased by recurrent satisfactions; extremely painful or depressing if not satisfied; and often acting as subconscious motives which influence action without taking form as conscious ends. (J.M.B., G.F.S.)

Negation [Lat. *negatio*, which translates Gr. *ἀπόφασις*]: Ger. *Verneinung*; Fr. *négation*; Ital. *negazione*. Negation is used (1) logically, (2) metaphysically. In the logical sense it may be used (*a*) relatively, and (*b*) absolutely. Used relatively, when applied to a proposition, it may be understood (*a*) as denying the proposition, or (*β*) as denying the predicate.

(1) In its logical sense, negation is opposed to affirmation, although, when it is used relatively, this is perhaps not a convenient contrary term; in its metaphysical sense, negative is opposed to positive (fact, &c.).

The conception of negation, objectively considered, is one of the most important of logical relations; but subjectively considered, it is not a term of logic at all, but is prelogical. That is to say, it is one of those ideas which must have been fully developed and mastered before the idea of investigating the legitimacy of reasonings could have been carried to any extent.

The treatment of the doctrine of negation affords a good illustration of the effects of applying the principle of PRAGMATISM (q.v.) in logic. The pragmatist has in view a definite purpose in investigating logical questions. He wishes to ascertain the general conditions of truth. Now, without of course undertaking to present here the whole development of thought, let it be said that it is found that the first step must be to define how two propositions can be so related that under all circumstances whatsoever,

The truth of the one entails the truth of the other,
The truth of the one entails the falsity of the other,
The falsity of the one entails the truth of the other,
The falsity of the one entails the falsity of the other.

This must be the first part of logic. It is deductive logic, or (to name it by its principal result) syllogistic. At all times this part of logic has been recognized as a necessary preliminary to further investigation. Deductive and inductive or methodological logic have always been distinguished; and the former has generally been called by that name.

In order to trace these relations between propositions, it is necessary to dissect the propositions to a certain extent. There are different ways in which propositions can be dissected. Some of them conduce in no measure to the solution of the present problem, and will be eschewed by the pragmatist at this stage of the investigation. Such, for example, is that which makes the copula a distinct part of the proposition. It may be that there are different ways of useful dissection; but the common one, which alone has been sufficiently studied, may be described as follows:

Taking any proposition whatever, as

'Every priest marries some woman to some man,'

we notice that certain parts may be struck out so as to leave a blank form, in which, if the blanks are filled by proper names (of individual objects known to exist), there will be a complete proposition (however silly and false). Such blank forms are, for example:

Every priest marries some woman to ——,
—— marries —— to some man,
—— marries —— to ——.

It may be that there is some language in which the blanks in such forms cannot be filled with proper names so as to make perfect propositions; because the syntax may be different for sentences involving proper names. But it does not matter what the rules of grammar may be.

The last of the above blank forms is distinguished by containing no selective word such as some, every, any, or any expression equivalent in force to such a word. It may be called a PREDICATE (q.v., sense 2) or *ῥῆμα*.

Corresponding to every such predicate there is another, such that if all the blanks in the two be filled with the same set of proper names (of individuals known to exist), one of the two resulting propositions will be true, while the other is false; as

Chrysostom marries Helena to Constantine;
Chrysostom non-marries Helena to Constantine.

It is true that the latter is not good grammar; but that is not of the smallest consequence. Two such propositions are said to be contradictories, and two such predicates to be negatives of one another, or each to result from the negation of the other. Two propositions involving selective expressions may be contradictories; but in order to be so, each selective has to be changed from indicating *a suitable selection* to indicating *any selection that may be made*, or vice versa. Thus the two following propositions are contradictories:

Every priest marries some woman to every man;
Some priest non-marries every woman to some man.

It is very convenient to express the negative of a predicate by simply attaching a *non* to it. If we adopt that plan, *non-non-marries* must be considered as equivalent to *marries*. It so happens that both in Latin and in English this convention agrees with the usage of the language. There is probably but a small minority of languages of the globe in which this very artificial rule prevails. Of two contradictory propositions each is said to result from the *negation* of the other.

The relation of negation may be regarded as defined by the principles of contradiction and excluded middle. See LAWS OF THOUGHT. That is an admissible, but not a necessary, point of view. Out of the conceptions of non-relative deductive logic, such as consequence, coexistence or composition, aggregation, incompossibility, negation, &c., it is only necessary to select two, and almost any two at that, to have the material needed for defining the others. What ones are to be selected is a question the decision of which transcends the function of this branch of logic. Hence the indisputable merit of Mrs. Frankin's eight copula-signs, which are exhibited as of co-ordinate formal rank. But, so regarded, they are not properly copulas or assertions of the relation between the several individual subjects and the predicate, but mere signs of the logical relations between different components of the predicate. The logical doctrine connected with those signs is of considerable importance to the theory of pragmatism.

For the negation of modals see MODAL.

Conversion by negation = CONTRAPOSITION (q.v.).

Negant or *negative negation* is the negation effected by attaching the negative particle to the copula in the usual Latin idiom, 'Socrates non est stultus,' in contradistinction to *infinite* (*ἀορίστη*), or *infinitant*, *negation*, which is effected by attaching the negative particle to the predicate, 'Socrates est non stultus.'

Kant revived this distinction in order to get a triad to make out the symmetry of his table of categories; and it has ever since been one of the deepest and dearest studies of German logicians. No idea is more essentially dualistic, and distinctly not triadic, than negation. *Not*-A = *other than* A = *a second thing to* A. Language preserves many traces of this. *Dubius* is between *two* alternatives, yea and nay.

(2) In the metaphysical sense, negation is the mere absence of a character or relation that is regarded as positive. It is distinguished from privation in not implying anything further.

Spinoza's celebrated saying, of which the Schellings have made so much, 'omnis determinatio est negatio,' has at least this foundation, that *determinatio* to one alternative excludes us from another. The same great truth is impressed upon youth in the utterance: 'You cannot eat your cake and have it too.' (C.S.P., C.L.F.)

Predicates are not denied to subjects at hazard—it would be a great waste of time to set forth in language the fact that the vast majority of predicates are inapplicable to the vast majority of subjects. In order that a negative statement may have any value, there must have been some reason to suppose that the affirmative statement of which it is the exact denial was true, either that it had been proposed for our acceptance by an interlocutor, that it had been part of our stored-up knowledge or purported knowledge, or that we had in mind what we took at the moment to be sufficient ground for its acceptance. Sigwart is, therefore, right in maintaining that the negative statement, in its origin, is not of the same primitiveness as the affirmative statement; '*a* is not *b*' is merely a