there is a series of facts each explicable by
the one following it, until a fact is reached
utterly inexplicable. (Cf. Hamilton's Refs.
Note A, § 311 vi. et seq.)
(c) Applied also to the limiting state of
an infinite series of states which approach in
definitely, they limit the state, and on the
which nearer and nearer, without necessarily
ever reaching it; although the word ultimate
does not imply a denial of actual attainment.
Thus, it has been held that a real object is
that which will be represented in the ultimate
opinion about it. This implies that a series of
opinions succeed one another, and that it is
expected that they may ultimately tend more
and move towards some limiting opinion, even
if they do not reach and rest in a last opinion.

Ultras [Lat. utra, beyond]. Extremes,
used in compounds, as ultra-revolution, ultra-
belief, etc. (J.M.B.)

Ultranautanism [Lat. ultra, beyond; the
boulet]; Ger. Ultramontanismus; Fr.
ultranautanisme; Ita. ultramontanismo. In
the Roman Catholic Church, the principles
and tendencies of those who
aim to increase and consolidate the power of
the pope, especially to maintain his
temporal power intact.

Ultranautanism is opposed to gallican-
ism (q.v.) and constitutes a centralizing
tendency in the Church. The dogmas of the
infallibility of the pope was regarded as a
triumph of the Ultramontane influence. In
recent years Ultramontanism and Gallicanism
have just a large measure of their
party significance and have come to stand
for opposing tendencies within the Catholic
Church. (A.T.H.D.)

Unbelief (religious): Ger. Unglaube; Fr.
incroyable; Ita. incroyenanza. That
attitude of mind towards religion which is
not simply negative but involves positive dis-
belief in some of the doctrines or practices of
religion.

Unbelief presupposes the positive rejection
of the claims of religion, and in the minds of
most religious persons is associated with a
degree of moral obliquity. In the popular
mind it is identified with infidelity. Cf. Belief
-especially in theology and religion. (A.T.H.D.)

Unconditional: see Absolute, and Con-
ditioned.

Unconscious: Ger. unbewusst; Fr.
incou-
scient; Ita. incosciente, conoscitente. (1) In
general, not conscious, non-mental; not
possessed of mind or consciousness.
is synonymous with sense, 
and with 
reflective knowledge. (Rene the 
ability of another to 
English;垄断 often 
reasoning, or reflective thought, and, less 
often intuitive and certain knowledge; reason 
in itself is no longer 
with the concept of 
logical process that it is hardly fit at all 
to translate the German Verum.) But 
the significance of the modern distinction is due 
to Kant. The understanding is thought 
working according to the schematized catego-
ries, and having validity in relation to 
experience; reason is thought working 
with reference to the application of concepts 
to the material of sense, hence searing into 
the super-sensible, and so, while giving us certain ideals of a regulative value, sharing no 
opposite (or constitutive) value. Colorless 
made much of this distinction in English; but 
without any regard to Kant's careful 
and critical definitions. Hegel developed the 
ideas so that reason should express a knowl-
edge which is immediate in certainty and 
truth; and the result of the development of 
the understanding to its full implications. 
See SPECULATION. He 
seems to follow Nicholas of Cusa, who defines 
understanding as distinguishing and same-
giving, separating opposites according to 
the principle of contradiction, and reason as 
that which recognizes the compatibility of 
opposites.

**UNDER-STRAIGHT — UNIFORMITY**

**Proemina, q. v.** unicellular (Protozoa, photosynthetic plants, and the subdeveloped ova of the multicellular) MAMMALIA (q. v.). Cf. ANOMALIA (q. v.) for certain details. Interest in this term has been 
done in investigating the behavior of unicel-
lar organisms under various experimental 
conditions, for which see the literature.

**Literature:** DAVIES, C. Comparative Morphology, 
Jennings, series of papers, 1893, in the 
Am. J. of Physiol., 1893; E. CALVIN. 
The Protoclast (1901).

**Unification of Knowledge.** Not in use 
in other languages. A phrase used by Herbert 
Spencer to define philosophy. He distinc-
tiates three stages of knowledge. The first 
is ordinary scientific knowledge, in which each 
field stands detached and unconnected. 
It is unsound. Science generalizes related 
truths of various departments, but does not 
Attempts to bring these generalizations into 
original whole. It is partly unified knowl-
edge. The truth of philosophy arises from 
the relation to the highest science truths 
that each of these have to borrow scientific 
truths... It is a completely unified knowledge.

That is, it takes the generalizations of, say, 
physics, psychology, and sociology, and reduces 
them to special cases of a still more general 
truth. In Spencer's theory this highest genera-
tization, through which knowledge is 
completely unified, is that of evolution and 
Huxley considered as the formula for the 
redistribution of matter and motion, and 
defined by the perfection of force (First 
Principles, p. 311). One also Carlile, the 
Spencer's Unification of Knowledge. (8.)

**Uniformitarianism** (Lat. uniformis, "uniform") is the 
theory of uniform processes in nature, of 
uniformity (not exist.—1855); It. (dau-
trono di) uniformità di natura, the 
theory that the world as a whole, including the 
mental and moral, is (1) the outcome of 
a single principle or law without breaks and without uniformity. (2) Continuity. 
This view is often hit off by the motto 
Nature survives forms. The term has come 
to mean almost universally, the rise of the 
domain of the dogmas of the philosopher 
of Hegel, on the other hand. It is a 
point of view common to naturalism, idealism, 
and materialism; it is opposed to dualism, 
universality, and dualism (in metaphysics). 
(8.)

**Uniformity** (Lat. unus, "uniform") is the 
theory of uniform processes in nature, of 
uniformity (not exist.—1855); It. (dau-
trono di) uniformità di natura, the 
theory that the world as a whole, including the 
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and materialism; it is opposed to dualism, 
universality, and dualism (in metaphysics). 
(8.)

**Under-stand.** See UNDERSTAND.

**Undulation.** See VIBRATION.

**Unanimity.** See Unanimity.

**Unanimous.** One or more of the above.

**Unanimous Opinion.** The opinion of the majority, or the opinion of the whole, or the opinion of all.

**Unanimous.** See Unanimous.

**Unanimity.** See Unanimity.

**Unanimous.** See Unanimous.
UNIFORMITY

For if two facts, A and B, are entirely independent in their real nature, then the truth of one fact cannot follow, either necessarily or probably, from the truth of the other. If we tried the experiment with a million stones and found that every one of them falls when allowed to drop, it may be very natural for us to infer that almost any stone will fall in the same way. But it can be proved that there is no real connection between the behaviour of different stones, then there is nothing for it but to say that it was a chance coincidence that these million stones all behaved in the same way; for if there was any reason for it, and they really dropped, there was a real reason, that is, a real general. Now, if it is more chance that they all dropped, that affords no more reason for supposing that the next will drop, than in throwing three double-sixes successively with a pair of dice is a reason for thinking that the next throw will be double-sixes.

But it is found that Mill's good sense and candour will not allow him to take the course which a Hobbes would have, and utterly deny the validity of induction; and this leads to a new use of the word uniformity, as he speaks of the uniformity of nature. Before asking exactly what this phrase means, it may be noted that, whereas Hobbes attaches the assertion of it as an absolute to scholastic realism, except for a difficult expression. For in any that throughout the whole course of experience, events always, or even only usually, happen alike under the same conditions (what we usually called the 'invariability' of nature), is an agreement (complete or partial) which is not capable of being maintained without self-contradiction. For chance is merely the possible discrepancy between the character of the limited experience to which this is applicable, the whole course of experience. Hence, to say that the real, objective facts some general character can be predicted, is to assert the reality of a general. It only differs from scholastic realism in that Mill and his followers treat this aspect of the matter lightly; he is to say, the objective reality of the general—while the Scholastics regarded it as the greatest and most general resemblance for all time among phenomena of the same species in contrast to those among phenomena of different species. In a proposition there is not the slightest thing to believe. Take, for example, the genus of phenomena, the many thousands of species of American species of birds by Ains curious and his scholars. Now consider the species of this genus of phenomena which agree in this respect, that the two first words of the description have their first vowels the same. There is no reason to suppose the same is true of any general respect in which the circumstances of those species of phenomena agree with another and differ from others, either universally or casually. It is more chance result. It is true that some persons will not be inclined to assent to this judgment; but they cannot prove it otherwise. It can afford no adequate basis for induction. We see, then, that when we consider all phenomena, there is no way of making the statement sufficiently definite and certain. Suppose, then, that we attempt another modification of the law, that, of course, the laws and differences in between phenomena, some considerable proportion remain established by the corresponding resemblance and differences between those of the circumstances which appear to us to be persistent. The proposition is now rather psychological than metaphysical. It would be impossible, with any evidential basis, to prove the statement 'some considerable proportion' and in other respects the statement is vague enough. Still, there is sufficient truth in it, perhaps, to warrant the presumptive adoption of hypotheses, provided this adoption merely means that they are taken as sufficiently reasonable to justify some expression in experimentation to test their truth. This would be impossible by induction; but it gives no warrant at all to the leap of the first principles of induction needs no such dubious generalization; but, what is so logically certain that the generalization of a limited experience is, hence, the higher and larger our experience, the more certain it is, therefore, that the true in the long run, anything is true in the long run. Now all that induction infers is what would become true in the usual course of experience, if we were indefinitely prolonged. Since the method of induction generally appears to promote to that truth, that is a sufficient justification for the use of this method, although it does not give definite general resemblance for all time among phenomena of the same species in contrast to those among phenomena of different species. In a proposition, and the inductive conclusion, it is clear that the generalization of a limited experience is not a valid reason for the induction proper consists in judging the relative frequency of a character among all the individuals of a class by the relative frequency of that character among the individuals of a random sample of that class. Now the law, as thus formulated, may tend to make our hypothesis approximately true; but that the equations of motion are differential equations of the second order, involving,
UNIFORMITY

therefore, two arbitrary constants for each moving atom or corpuscle, and there is no uniform, except with these constants. At least, no such uniformity is, with the notion of most probability, discoverable. As for the distribution of potential about an atom or corpuscle, it is regular; but there is no uniform reason for that regularity, or, at least, none is probably discoverable. What is absolutely beyond discovery, whether direct and specific or indirect and general, may be considered as non-existent. From the same concept and in some sense absolute opinion there follows many dispositions in both directions. First, in the direction of greater uniformity:

(5) Some hold that there is some exact arithmetic, and some arbitrary constants of the motion of the atoms, as that, for example, perhaps at some instant they all had some symmetrical or regular arrangement, like a pack of cards unshuffled; and that the velocities at that instant were regular also. But this regularity being of a purely arbitrary or formal kind, and the laws of motion equally random and unrelated to any purpose, it follows that all kinds of arrangements will be produced, unaltered by any uniformity, but more often, a given chance. Three stars may, for example, at some instant form an equilateral triangle, but that would be no particular uniformity. For this reason for this: it would be merely a causal accident.

(6) Others go further and maintain that the constants of position and velocity are subject to law by law not merely formal, but are governed by final causes in such a way that there is an arrangement or coincidence whatever else may not specifically intend by the Creator. To this theory, such words as position and velocity are ill-adapted, because the two constants which each atom or corpuscle has, remain constant throughout all being, being not to be considered as having been fixed at any particular epoch. The very idea of the arrangement is determined by what would be the result of different arrangements at each period of time. If, for example, given a given effect, it may be supposed that in view of that a new, and as it were, the alternative, the different atoms had the appropriate constants; but that these were not given to the atoms at any particular epoch, but are in accordance to different uniform values. Any intentional action on the part of a free agent is to be explained in the same way. If an agent is to be supposed really free, it is difficult to see what other physical explanation is compatible with the existence of law. This seems to be the absolute position of most probability, if not in a constant, but in a habit of taking and laying aside habits. The uniform nature of the things as far as it is absolute, if not most extraordinary high, although probably very far indeed from any directly observable magnitude. But this effect is to cause the laws of mind to be themselves of so much duration as to stimulate divergences from law. All this, according to the writer, constitutes a hypothesis capable of being tested by experiment.

Literature: Besides most treatises on Logic e.g., especially inductive) are Reviewers of the Treatise on the Monadology (c.e.p.)

UNIFORMITY (Latin: norma, rule).
Regularity and uniformity presupposed in the possibility of representing the real world by an ideal construction. Whence any two or more attributes are repeatedly to be connected together, clearly or remotely in time or in space, or in both, we have a uniformity. And the general expression, the uniformity of nature, is intended to cover all such partial connections, and to imply that their existence may be detected or reasonably inferred throughout all phenomena whatever (Yvon, Descriptive Logic, 95).

All conditions of means towards ends, and indeed all adjustment of action in accordance with the conditions of efficiency and uniformity presupposed as the condition of effectiveness more or less uniformity of correspondence and coexistence in natural phenomena, is a natural development of the idea. Thus we seek for uniformity, and the world is so constituted as to be able to develop experience of these uniformities and thus to form the basis of a system, and a theoretical interest in the extension of this system. Finally, the conception of natural process as a natural development, determined, not by chance but by reason, is a fixed law coming into being.

Uniformity of Nature [brev. U.N.]

(a, b, c, d, e, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z, 

Universe [Lat. universus, all, entire, round]; 

Ger. Erdballung; Fr. universite; Ital. universo; 

The most perfect being, in which both itself and everything else are the same. See Helmholtz, Gesammelte Schriften (Berlin, 1887), 187. 

Unijac (of physics) [Fr. unijac]; 

See: Einheit, Fr. unité; Ital. unità; 

A portion of any magnitude or quantity, or to express the value of any other physical quantity P of the same magnitude or quantity