

Habit

1868 | Some Consequences of Four Incapacities | W 2:232-3; CP 5.297

Attention produces effects upon the nervous system. These effects are habits, or nervous associations. A habit arises, when, having had the sensation of performing a certain act, *m*, on several occasions *a*, *b*, *c*, we come to do it upon every occurrence of the general event, *l*, of which *a*, *b* and *c* are special cases. That is to say, by the cognition that

Every case of *a*, *b*, or *c*, is a case of *m*,

is determined the cognition that

Every case of *l* is a case of *m*.

Thus the formation of a habit is an induction, and is therefore necessarily connected with attention or abstraction. Voluntary actions result from the sensations produced by habits, as instinctive actions result from our original nature.

1878 | Deduction, Induction, and Hypothesis | CP 2.643; W 3:337

Induction infers a rule. Now, the belief of a rule is a habit. That a habit is a rule active in us, is evident. That every belief is of the nature of a habit, in so far as it is of a general character, has been shown in the earlier papers of this series. Induction, therefore, is the logical formula which expresses the physiological process of formation of a habit.

1878 | How to Make Our Ideas Clear | W 3:265; CP 5.400

...what a thing means is simply what habits it involves. Now, the identity of a habit depends on how it might lead us to act, not merely under such circumstances as are likely to arise, but under such as might possibly occur, no matter how improbable they may be. What the habit is depends on *when* and *how* it causes us to act. As for the *when*, every stimulus to action is derived from perception; as for the *how*, every purpose of action is to produce some sensible result.

1880 | Logic. Chapter I. Thinking as Cerebration | W 4:46

Habit plays somewhat the same part in the history of individual that natural selection does in that of the species; namely, it causes actions to be directed toward ends.

1881 | Methods of Reasoning | W 4:249

A habit is a general rule operative within the organism...

1883 | A Theory of Probable Inference | W 4:422; CP 2.711

In point of fact, a syllogism in Barbara virtually takes place when we irritate the foot of a decapitated frog. The connection between the afferent and efferent nerve, whatever it may be, constitutes a nervous habit, a rule of action, which is the physiological analogue of the major premiss. The disturbance of the ganglionic equilibrium, owing to the irritation, is the physiological form of that which, psychologically considered, is a sensation; and, logically considered, is the occurrence of a case. The explosion through the efferent nerve is the physiological form of that which psychologically is a volition, and logically the inference of a result. When we pass from the lowest to the highest forms of innervation, the physiological equivalents escape our observation; but, psychologically, we still have, first, habit, - which in its highest form is understanding, and which corresponds to the major premiss of *Barbara*; we have, second, feeling, or present consciousness, corresponding to the minor premiss of *Barbara*; and we have, third, volition, corresponding to the conclusion of the same mode of syllogism. Although these analogies, like all very broad generalizations, may seem very fanciful at first sight, yet the more the reader reflects upon them the more profoundly true I am confident they will appear. They give a significance to the ancient system of formal logic which no other can at all share.

1883-4 | Design and Chance [W] | W 4:553

The main element of habit is the tendency to repeat any action which has been performed before. It is a phenomenon at least coëxtensive with life, and it may cover a still wider real realm.

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May not the laws of physics be habits gradually acquired by systems[?]

1885 | On the Algebra of Logic: A Contribution to the Philosophy of Notation | W 5:162

...habits are general rules to which the organism has become subjected.

1887-1888 | A Guess at the Riddle | W 6:191; CP 1.390

...if the same cell which was once excited, and which by some chance had happened to discharge itself along a certain path or paths, comes to get excited a second time, it is more likely to discharge itself the second time along some or all of those paths along which it had previously discharged itself than it would have been had it not so discharged itself before. This is the central principle of habit; and the striking contrast of its modality to that of any mechanical law is most significant. The laws of physics know nothing of tendencies or probabilities; whatever they require at all they require absolutely and

without fail, and they are never disobeyed. Were the tendency to take habits replaced by an absolute requirement that the cell should discharge itself always in the same way, or according to any rigidly fixed condition whatever, all possibility of habit developing into intelligence would be cut off at the outset; the virtue of Thirdness would be absent. It is essential that there should be an element of chance in some sense as to how the cell shall discharge itself; and then that this chance or uncertainty shall not be entirely obliterated by the principle of habit, but only somewhat affected.

1887-1888 | A Guess at the Riddle | W 6:210; CP 1.415

...habits, from the mode of their formation, necessarily consist in the permanence of some relation...

1892 | The Law of Mind | EP 1:327-8; CP 6.145; W 8:151

By induction, a habit becomes established. Certain sensations, all involving one general idea, are followed each by the same reaction; and an association becomes established, whereby that general idea gets to be followed uniformly by that reaction.

Habit is that specialization of the law of mind whereby a general idea gains the power of exciting reactions. But in order that the general idea should attain all its functionality, it is necessary, also, that it should become suggestible by sensations. That is accomplished by a psychical process having the form of hypothetic inference.

1892 | Man's Glassy Essence | W 8:180; CP 6.264

...habits are general ways of behaviour which are associated with the removal of stimuli.

1893 | Evolutionary Love | W 8:192-3; CP 6.300

Habit is mere inertia, a resting on one's oars, not a propulsion. Now it is energetic projaulation (lucky there is such a word, or this untried hand might have been put to inventing one) by which in the typical instances of Lamarckian evolution the new elements of form are first created. Habit, however, forces them to take practical shapes, compatible with the structures they affect, and, in the form of heredity and otherwise, gradually replaces the spontaneous energy that sustains them. Thus, habit plays a double part; it serves to establish the new features, and also to bring them into harmony with the general morphology and function of the animals and plants to which they belong.

From vol. 8 of the *Writings*: "Peirce's parenthetical remark is probably facetious. It is pretty likely that his well-trying hand invented it. The word has no entry in the *Oxford English Dictionary*, nor does it in the first

edition of the *Century Dictionary*. The CD Supplement of 1909 has an entry for the verb "projaculate" (to dart or throw forward) and mentions that it is rare; it quotes a text of 1904 in which G. Stanley Hall uses the verb."

1897 [c.] | Recreations in Reasoning | CP 4.157

...there are three categories of being; ideas of feelings, acts of reaction, and habits. Habits are either habits about ideas of feelings or habits about acts of reaction. The ensemble of all habits about ideas of feeling constitutes one great habit which is a World; and the ensemble of all habits about acts of reaction constitutes a second great habit, which is another World. The former is the Inner World, the world of Plato's forms. The other is the Outer World, or universe of existence. The mind of man is adapted to the reality of being. Accordingly, there are two modes of association of ideas: inner association, based on the habits of the inner world, and outer association, based on the habits of the universe.

1897-8 | Abstracts of 8 Lectures | NEM 4:141-2

...although here and there in physics we may pick up a useful fact or two about habit, we really are obliged to go to the mind for the bulk of our information about it.

But even from the human mind we only collect external information about habit. Our knowledge of its inner nature must come to us from logic. For habit is generalization.

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Habits are not for the most part formed by the mere slothful repetition of what has been done, but by the logical development of the potential germinal nature of the man, generally by an effort, the accident of having done this or that merely having an adjuvant effect.

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A habit then is not so much a mere tendency to repeat any action you happened to perform, though there is a certain tendency of this kind as it is the adoption of something which you happened to do because it happened to afford an outlet for the logical development of your germinal nature.

1901 | Hume's Argument against Miracles, and the Idea of Natural Law (Hume) | MS [R] 873:3-4 (var.); HP 2:912

A *habit* is a state of a man in consequence of which he will on occasions of a certain description act in a certain general way.

1902 | Minute Logic: Chapter II. Section II. Why Study Logic? | CP 2.170

If I may be allowed to use the word "habit," without any implication as to the time or manner in which

it took birth, so as to be equivalent to the corrected phrase “habit or disposition,” that is, as some general principle working in a man’s nature to determine how he will act, then an instinct, in the proper sense of the word, is an inherited habit, or in more accurate language, an inherited disposition. But since it is difficult to make sure whether a habit is inherited or is due to infantile training and tradition, I shall ask leave to employ the word “instinct” to cover both cases.

1902 | Minute Logic: Chapter II. Section II. Why Study Logic? | CP 2.148

An expectation is a habit of imagining. A habit is not an affection of consciousness; it is a general law of action, such that on a certain general kind of occasion a man will be more or less apt to act in a certain general way. An imagination is an affection of consciousness which can be directly compared with a percept in some special feature, and be pronounced to accord or disaccord with it. Suppose for example that I slip a cent into a slot, and expect on pulling a knob to see a little cake of chocolate appear. My expectation consists in, or at least involves, such a habit that when I think of pulling the knob, I imagine I see a chocolate coming into view. When the perceptual chocolate comes into view, my imagination of it is a feeling of such a nature that the percept can be compared with it as to size, shape, the nature of the wrapper, the color, taste, flavor, hardness and grain of what is within. Of course, every expectation is a matter of inference. What an inference is we shall soon see more exactly than we need just now to consider. For our present purpose it is sufficient to say that the inferential process involves the formation of a habit. For it produces a belief, or opinion; and a genuine belief, or opinion, is something on which a man is prepared to act, and is therefore, in a general sense, a habit. A belief need not be conscious. When it is recognized, the act of recognition is called by logicians a judgment, although this is properly a term of psychology. A man may become aware of any habit, and may describe to himself the general way in which it will act. For every habit has, or is, a general law. Whatever is truly general refers to the indefinite future; for the past contains only a certain collection of such cases that have occurred. The past is actual fact. But a general (fact) cannot be fully realized. It is a potentiality; and its mode of being is *esse in futuro*. The future is potential, not actual. What particularly distinguishes a general belief, or opinion, such as is an inferential conclusion, from other habits, is that it is active in the imagination. If I have a habit of putting my left leg into my trouser before the right, when I imagine that I put on my trousers, I shall probably not definitely think of putting the left leg on first. But if I *believe* that fire is dangerous, and I imagine a fire bursting out close beside me, I shall also imagine that I jump back. Conversely – and this is the most important point – a belief habit formed in the imagination simply, as when I consider how I ought to act under imaginary circumstances, will equally affect my real action should those circumstances be realized. Thus, when you say that you have faith in reasoning, what you mean is that the belief habit formed in the imagination will determine your actions in the real case. This is looking upon the matter from the psychological point of view. Under a logical aspect your opinion in question is that general cognitions of potentialities *in futuro*, if duly constructed, will under imaginary conditions determine *schemata* or imaginary skeleton diagrams with which percepts will accord when the real conditions accord with those imaginary conditions; or, stating the essence of the matter in a nutshell, you opine that percepts follow certain general laws.

1902-03 [c.] | Reason's Rules | MS [R] 596:21

...a habit (using the word in such a sense as not to exclude a natural disposition) is nothing but a rule

so impressed upon a man's nature that he tends to act according to it, when opposing influences are not too strong.

From a variant page

1905 | Consequences of Pragmatism | LI 302

A *habit* which is objective continues as long as the future conditional proposition continues true, 'If such and such conditions are fulfilled, such and such will the behaviour of the subject be'. It would be absurd to say that the habit only subsists at the moment that it operates, or that it only subsists if the conditions are about to be fulfilled. For a habit is general, and as such cannot be constituted by any multitude of individual occurrences, - not even by an infinite multitude, not even by an abnumeral multitude of whatever order you please. It is only constituted by the truth of the general future conditional proposition; that is to say by the *nonoccurrence* of a given kind of event, not by *occurrences* of the reverse event, however. Moreover, if the conditions never are to arise, still there may be something to determine what could not occur even if they should arise.

1905 | Notes on Portions of Hume's "Treatise on Human Nature" | MS [R] 939:22

A habit is the *general* way in which one *would act if* such and such a *general* kind of occasion *were to* occur. To say it really explains anything is to make a general real, and knock the pins from under every nominalistic philosophy.

1907 | Pragmatism | CP 5.480

[Readiness] to act in a certain way under given circumstances and when actuated by a given motive is a habit; and a deliberate, or self-controlled, habit is precisely a belief.

1907 | Pragmatism | EP 2:413, CP 5.487

Habits differ from dispositions in having been acquired as consequences of the principle, virtually well known even to those whose powers of reflection are insufficient to its formulation, that multiply reiterated behaviour of the same kind, under similar combinations of percepts and fancies, produces a tendency, - the *habit*, - actually to behave in a similar way under similar circumstances in the future. Moreover, - *here is the point*, - every man exercises more or less control over himself by means of modifying his own habits; and the way in which he goes to work to bring this effect about in those cases in which circumstances will not permit him to practice reiterations of the desired kind of conduct in the outer world shows that he is virtually well acquainted with the important principle that *reiterations in the inner world*, - *fancied reiterations*, - *if well-intensified by direct effort*, produce habits, just as do reiterations in the outer world; and these habits will have power to influence actual behavior

in the outer world; especially, if each reiteration be accompanied by a peculiar strong effort that is usually likened to issuing a command to one's future self.

1907 | Pragmatism | MS [R] 318:34

By a habit I mean any modification of a person's disposition, or tendency, when actuated by certain desires, to respond to perceptual conditions, by conduct of a certain kind, such modification resulting from previous external experiences or from certain previous voluntary action of effort on the part of the same person.

From a possibly discarded draft

1907 | Pragmatism | MS [R] 318:55

...the generalization of effort is habit.

1907 [c.] | Prag [R] | MS [R] 322:10

...a habit is a general mode of action.

1909 | Meaning Pragmatism [R] | MS [R] 621:39; ILS 216-217

...a habit consists in the fact that man or a thing *would* usually behave in definite way upon *any* definite sort of occasion and is thus by definition general.

1910 | Note (Notes on Art. III) [R] | CP 2.667

...I should think that the performance of a certain line of behavior, throughout an endless succession of occasions, without exception, very decidedly *constituted* a habit. There may be some doubt about this, for owing to our not being accustomed to reason in this way about successions of events which are endless *in the sequence* and yet are completed *in time*, it is hard for me quite to satisfy myself what I ought to say in such a case. But I have reflected seriously on it, and though I am not perfectly sure of my ground (and I am a cautious reasoner), yet I am more that what you would understand by "pretty confident," that supposing one to be in a condition to assert what *would surely be* the behavior, *in any single determinate respect*, of any subject throughout an endless series of occasions of a stated kind, he *ipso facto* knows a "would-be," or habit, of that subject. It is very true, mind you, that no collection whatever of single acts, though it were ever so many grades greater than a simple endless series, can constitute a would-be, nor can the knowledge of single acts, whatever their multitude, tell us for *sure*

of a would-be.

1911 | A Logical Critique of Essential Articles of Religious Faith | MS [R] 852:8-9

If I may be allowed to use the word "Habit" to denote any state of mind by virtue of which a person would, under definite circumstances, — mostly, if not invariably, consisting in his experiencing conscious experience of some kind, — either think, or act, or feel in a definite way, [...] then doubt may be defined as the state of mind in which one is stimulated to impossible intellectual assents.

1911 [c.] | First Introduction | MS [R] 671:6-7

...the state which consists in the fact that upon any occasion of any particular description, A, one *would* behave in any particular manner, B, is all I mean by "habit." For I make no distinction between a "habit" and a "disposition;" and in my nomenclature a "habit" is nothing but a state of "would-be" realized in any sort of subject that is itself real; and I speak as readily of the "habits" of oxygen or hydrogen, or of the "habits" of electricity, as of the habits of bees or of classes of men. Consequently, the fact that any real subject, on any particular sort of occasion, A, would *not* behave in the particular manner, B, is just as truly a "habit," in my sense of the word, as if he were sure to behave in the manner B. For a "habit" is nothing but the reality of a *general fact* concerning the conduct of any subject.

1911 [c.] | A Sketch of Logical Critic | MS [R] 673:14-15

I use the word "*habit*" in its old, and I think not yet quite obsolete sense, in which it denotes any lasting state whether of a person or a thing, this state consisting in the fact that on any occasion of a certain kind that person or thing would, either certainly, or even only probably behave in a definite way.

1911 [c.] | A Sketch of Logical Critic | MS [R] 674:15

I propose to apply the word ["habit"] to any lasting state of a person or thing which consists in the fact that he, she, or it *would* behave in a certain way on any occasion of a certain kind. If however all that were true was that the person or thing would so behave oftener than it would but for a special tendency, that I should rather call a *disposition*.

1913 | Letters to F. A. Woods | CP 8.380

A conditional proposition, — say "If A, then B" is equivalent to saying that "Any state of things in which A should be true, *would* (within limits) *be* a state of things in which B is true." It is therefore essentially an assertion of a *general* nature, the statement of a "*would-be*." But when the antecedent supposes an

existential fact to be different from what it actually is or was, the conditional proposition does not accurately state anything; and if it conveys any meaning, i.e. if it is calculated to produce any state of mind, in a person who trusts in it, it must be that it establishes a *habit* in that mind, using the word "habit" in the original sense, as meaning only that the person or thing that has the habit, *would* behave (or usually behave) in a certain way *whenever* a certain occasion should arise.

1913 | A Study of How to Reason Safely and Efficiently | MS [R] 681:22

...by a *Habit* I shall mean a character of anything, say of B, this character consisting in the fact that under circumstances of a certain kind, say A, B *would* tend to be such as is signified by a determinate predicate, say C. The same thing might be more briefly expressed by saying that I call any *real* "Would-be" a *habit* of the subject of such predication, but by stating the matter more fully I bring into prominence the fact that a "Would-be" is a relation between three objects, A, B, and C.