

Habit-taking

1886 | One, Two, Three: Kantian Categories | W 5:293

We have to suppose that in looking into the indefinite past we are looking into back towards times when the element of law played an indefinitely small part in the universe.

If the universe is thus progressing from a state of all but pure chance to a state of all but complete determination by law, we must suppose that there is an original, elemental, tendency of things to acquire determinate properties, to take habits. This is the Third or mediating element between chance, which brings forth First and original events, and law which produces sequences or Seconds. Now this tendency to take habits is something essentially finite in amount, an infinitely strong tendency of this sort [unlike an absolute conformity to law] is inconceivable and self-contradictory. Consequently this tendency must itself have been gradually evolved; and it would evidently tend to strengthen itself.

Here is a rational physical hypothesis, which is calculated to account, or all but account for everything in the universe except pure originality itself.

1887-1888 | A Guess at the Riddle | W 6:208; CP 1.409

Uniformities in the modes of action of things have come about by their taking habits. At present, the course of events is approximately determined by law. In the past that approximation was less perfect; in the future it will be more perfect. The tendency to obey laws has always been and always will be growing. We look back toward a point in the infinitely distant past when there was no law but mere indeterminacy; we look forward to a point in the infinitely distant future when there will be no indeterminacy or chance but a complete reign of law. But at any assignable date in the past, however early, there was already some tendency toward uniformity; and at any assignable date in the future there will be some slight aberrancy from law. Moreover, all things have a tendency to take habits. For atoms and their parts, molecules and groups of molecules, and in short every conceivable real object, there is a greater probability of acting as on a former like occasion than otherwise. This tendency itself constitutes a regularity, and is continually on the increase. In looking back into the past we are looking toward periods when it was a less and less decided tendency. But its own essential nature is to grow. It is a generalizing tendency; it causes actions in the future to follow some generalization of past actions; and this tendency is itself something capable of similar generalizations; and thus, it is self-generative. We have therefore only to suppose the smallest spoor of it in the past, and that germ would have been bound to develop into a mighty and over-ruling principle, until it supersedes itself by strengthening habits into absolute laws regulating the action of all things in every respect in the indefinite future.

According to this, three elements are active in the world: first, chance; second, law; and third, habit-taking.

1887-1888 | A Guess at the Riddle | W 6:448

I think that everybody must admit that the condition of excitation of nerve-cells is, broadly speaking, the physiological basis of Feeling, and that the discharge of nerve-cells, or the movement of nervous energy, is the physiological basis of the sense of action and reaction. But almost everybody will say that these two phenomena exhaust the functions of the nerves, and leave nothing to explain mediate consciousness, for we are so restricted to the plane of dual thought in regard to physiology, that the most remarkable property of the nerves, and of living tissue generally, is commonly left out of sight. This most characteristic power is that of taking habits. It seems clear that this is the physiological basis for the consciousness of leaning.

1890 | Logic and Spiritualism [R] | W 6:393; CP 6.585

Hyperbolic philosophy has to assume for starting-point something *free*, as neither requiring explanation nor admitting derivation. The free is living; the immediately living is *feeling*. Feeling, then, is assumed as starting-point; but feeling uncoordinated, having its manifoldness implicit. For principle of progress or growth, something must be taken not in the starting-point, but which from infinitesimal beginning will strengthen itself continually. This can only be a principle of growth of principles, a tendency to generalization. Assume, then, that feeling tends to be associated with and assimilated to feeling, action under general formula or habit tending to replace the living freedom and inward intensity of feeling. This tendency to take habits will itself increase by habit. Habit tends to coordinate feelings, which are thus brought into the order of Time, into the order of Space.

1891 [c.] | Questions on William James's Principles of Psychology 1 | CP 8.80

Is this classification of "mental states" as feelings and thoughts sufficiently scientific? Is it not better to adopt the *logical* division not of "mental states" but of mental elements, into feeling-qualities, reactions (volition and experience), and habit-taking?

1892 | Man's Glassy Essence | W 8:179; CP 6.262

...it may fairly be urged that since the phenomena of habit may thus result from a purely mechanical arrangement, it is unnecessary to suppose that habit-taking is a primordial principle of the universe. But one fact remains unexplained mechanically, which concerns not only the facts of habit, but all cases of actions apparently violating the law of energy; it is that all these phenomena depend upon aggregations of trillions of molecules in one and the same condition and neighborhood; and it is by no means clear how they could have all been brought and left in the same place and state by any conservative forces. But let the mechanical explanation be as perfect as it may, the state of things which it supposes presents evidence of a primordial habit-taking tendency. For it shows us like things acting in like ways because they are alike. Now, those who insist on the doctrine of necessity will for the most part insist that the physical world is entirely individual. Yet law involves an element of generality. Now to say that generality is primordial, but generalization not, is like saying that diversity is primordial but diversification not. It turns logic upside down. At any rate, it is clear that nothing but a principle of habit, itself due to the growth by habit of an infinitesimal chance tendency toward habit-

taking, is the only bridge that can span the chasm between the chance-medley of chaos and the cosmos of order and law.

1893 | Reply to the Necessitarians: Rejoinder to Dr. Carus | The Monist, 3, p. 560; CP 6.612

A realist, such as I am, can find no difficulty in the production of that first infinitesimal germ of habit-taking by chance, provided he thinks chance could act at all. This seems, at first blush, to be explaining something as a chance-result. But exact analysis will show it is not so.

1898 | Cambridge Lectures on Reasoning and the Logic of Things: Habit | RLT 241; CP 7.515

...any fundamental universal tendency ought to manifest itself in nature. Where shall we look for it? We could not expect to find it in such phenomena as gravitation where the evolution has so nearly approached its ultimate limit, that nothing even simulating irregularity can be found in it. But we must search for this generalizing tendency rather in such departments of nature where we find plasticity and evolution still at work. The most plastic of all things is the human mind, and next after that comes the organic world, the world of protoplasm. Now the generalizing tendency is the great law of mind, the law of association, the law of habit taking. We also find in all active protoplasm a tendency to take habits. Hence I was led to the hypothesis that the laws of the universe have been formed under a universal tendency of all things toward generalization and habit-taking.