

THE OPEN COURT.

A WEEKLY JOURNAL

DEVOTED TO THE RELIGION OF SCIENCE.

No. 420. (VOL. IX.—37.)

CHICAGO, SEPTEMBER 12, 1895.

One Dollar per Year,
Single Copies, 5 Cents.

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IMMORTALITY DISCUSSED.

BY E. P. POWELL.

SOME time ago we agreed to discuss the question of immortality. Is this hope of man anything more than a wish or a desire? It has, so far as I know, never been demonstrated.

To demonstrate immortality is to make it certainty to rational minds—not to prove it by the senses.

Certainly; but what has a beginning can have an end; and we know that our lives do have a point of beginning.

They most assuredly do not. They have a point of beginning to operate the organism called the body—a mere flux of atoms. But the life in which we share is without beginning. We do not need to repeat our argument that nothing can originate *ab nihilo*.

But that proves only that our egos are of the Eternal Mind, and may either go back into the Infinite, or go forward in an infinite chain of causations.

Have you ever thought what your own life is—except as a chain of causations? You are not what you were twenty years ago. You barely remember a few scraps of your life of that date—most of it is forever lost to your power to recall. If it were obliterated your happiness would hardly be affected.

But do you not mean to say immortality is at best only eternal sequences; and we live at only one of these at a time—and that to be immortal only means I am constantly being blotted out for another I? And what I now am is really *not* to live on?

Clearly you have a power to beget a successor self—and he another—and so on *ad infinitum*. It is the indestructibility of the power to beget that we contend for.

This seems to me to rob immortality of all its glory and value. Will our friendships inevitably fade? and our loves?

Except as they hourly beget new love they most assuredly do fade. That is the fate, as you well know, of most friendships—lacking power to re-live in new purpose and conception.

But immortality as generally taught is something quite different, I am sure. It is essentially to live forever in a second life; not a continuity of lives. To

believe in such a great future far ahead of this world-life is held to be all-important.

It is doubtful if such a belief has been of any value whatever to men either morally or intellectually. Accepted not as a first choice, its value has invariably been associated either with extravagant and unwholesome joys or with terrible fears. This has enabled the priest to take as his favorite stand the threshold of undying existence, and by pictures of bliss and pictures of misery to buy the services of his hearers or terrify them into submission.

You hold then that the essential immortality is the power—indeed the necessity of change. *We* die that another *we* may live. But why may not this generation of selfs cease? Even allowing that evolution is eternal, is it provable that man holds any more certain place than that missing link, which for ages existed, and then was so absolutely obliterated that we cannot find its record even among the fossils?

For thousands of years evolution has proceeded by means of man, and there are no signs of any higher organism ahead. With man began a reign of moral purpose. The secret of eternal life lies in our ethical being. He that wills ethically becomes one with the eternal Ethical Purpose. The question is, whether our spirits do by free choice enter into the immortal life of truth and love which is indestructible. The true conception of immortality is that of a survival of the fittest. While we are the fittest by our own resolve, there is no power in nature to undo us. There is every reason to believe that man is the object reached after by organic evolution. Henceforth the end will be ignorance surmounted by man, weakness mastered by man, ideals touched—"God in man."

I have been accustomed to read Tennyson with considerable pleasure, but of late with less satisfaction. It is a puzzle to me that religious people seem to believe that the very best hope and faith they can get is found in such passages of In Memoriam as

"I stretch lame hands of faith, and grope,
And gather dust and chaff, and call
To what I feel is Lord of all;
And faintly trust the larger hope."

This is not faith; it is not knowledge; it is hardly hope. Is this all that we have reached in our reasoning and soul-reachings? The whole thing is in a nut-

shell. I am a child of God. God is my Father. We have love one for another. He will not fail me; I will not fail Him. I stand as firm as God, because I stand with God. My friend, no one yet has ever got beyond the sublime truth, "I and my Father are One." Only we need to see that this is true of every up-looker on earth. But if one will take in all of In Memoriam from first to last he will find the real immortality in such a passage as this:

"So many worlds, so much to do!
So little done, such things to be!
How know I what had need of thee,
For thou wert strong as thou wert true?"

But there is more than I can see;
And what I see I leave unsaid,
Nor speak it, knowing Death has made
His darkness beautiful with thee."

But let me go back to your valuation of immortality as a theoretical power. I am surprised that you consider it of no great value as a belief in affecting an amelioration of human character. I have been accustomed to think with those who consider the value of a belief in another life as among the highest motives to virtue.

Agnosticism is a mental flatulence that I do not intend to encourage in myself or others; but there is such a thing as neglecting more important knowledge for less important. It has been the history of mankind that to undertake to live for another life has been largely at a sacrifice of good wholesome living of this life. It has led to contemptuous creeds concerning this world, the body, and our duties here and now. To save the soul in a next existence has involved a furious struggle, and rituals abhorrent to humanity. The inquisition was born of this doctrine. It abolished humanity; and the French Revolution, reacting, abolished Divinity.

A good This-worldliness is then what you advocate in place of other-worldliness.

Yes, a person may live accursedly for this life, or he may live accursedly for the next life. The all-important idea seems to be to live nobly and honorably the days that are ours; and to comprehend that these days are seeds determining the days to come.

CENTRALISATION AND DECENTRALISATION IN FRANCE.

BY THEODORE STANTON.

Since the days of the Gauls, France has been swinging like a pendulum between the two extremes of centralisation and decentralisation. During the past century the complaint has been frequently heard that there existed "apoplexy at the centre and paralysis at the extremities." This *mot* was so taking that it has often been repeated, although the nation's le-

gal representatives under three different régimes—the July Monarchy, the Second Empire, and the Third Republic—have, since 1830, newly organised and more broadly developed local self government in France. Of course, much still remains to be done, especially when the subject is viewed from an American standpoint. But as the pendulum is just now oscillating in the direction of decentralisation, there is fresh hope for still greater progress.

In fact, decentralisation is rapidly becoming a "live question" in this country. The reviews and newspapers are full of it, it is agitated in the Chambers, it is the subject of lectures in various parts of France. Mme. Adam's *Nouvelle Revue* has made it one of the "features" of the renovation which that periodical underwent last winter, and the "Chronique de la Décentralisation" and "Les Provinces" are now regular departments in this progressive semi-monthly. M. Marcel Fournier's new monthly, the excellent *Revue Politique et Parlementaire*, fairly teems with the *pros* and *cons*—especially the former—of decentralisation. "Theoretically decentralisation is a question that is more than ripe," said the *Temps* a short time ago in a leader favoring the reform; "further discussion and more articles and reports threatening to add only waste paper to the already overwhelming mass of materials on this subject."

But perhaps the most significant of these many fresh manifestations of this anti-centralising order is the foundation at Paris of the National Republican Decentralisation League. Senator de Marcère, the veteran statesman who played an important part in French public life during the critical days of MacMahon's presidency and who then showed himself as Minister of the Interior a pronounced and practical advocate of administrative decentralisation, is president of the organisation, while its membership includes such men as M. Léon Say, the political economist; Senator Bardoux, the ex-Minister and Member of the Institute; M. Léon Bourgeois, ex-Minister and Deputy; M. Flourens, Deputy and formerly Minister of Foreign Affairs; M. de Vogüé, Deputy and Member of the French Academy; Senator Adrien Hébrard, editor-in-chief of the influential and quasi-official *Temps*; and M. René Goblet, Deputy and ex-Prime Minister, who says in a recent note: "I am a rather early partisan of decentralisation, for, when Minister of the Interior in 1882, I introduced two bills on this subject, one of which would have developed the organisation of the canton, and the other would have handed over to the Councils General the authority over the communes now exercised by the Central Government; nor have I changed my mind on these questions."

Just what are the reforms these men would accom-

plish? In an "Address to our Fellow Citizens," issued by the League, we read:

"On account of the abuse of functionarism, which is causing the ruin of our finances, and on account of the lack of local liberties which weakens the force of the parliamentary régime, France is on the point of succumbing to a fatal disease,—anemia, in the provinces, and hypertrophy, at Paris. But the growth of the evil has called attention to the pressing need of reform, which, as it will save France and consolidate the Republic, ought to be demanded energetically by the country at large."

The principal remedy which these doctors in politics offer for the trouble is "administrative decentralisation," which strikes one as rather a mild dose for such a deadly disease.

We are further told in this same Address that the aim of the League is "to give life to the provinces and to favor the blossoming forth of all the artistic, literary, industrial, commercial, scientific, financial and political forces which lie hidden in the provinces and exhaust themselves by the enervation of inaction;" while the second article of the Statutes of the League is more explicit in the statement of its purposes, which are "to organise throughout the country a system of decentralising propaganda, whose aim shall be a diminution of the powers of the Central Government, without, however, threatening national unity, but rather strengthening it, and the increment of the authority of the communes, the department and other territorial divisions; thus to contribute in the interest of the French *patrie*, to the awakening of local life in all its forms, and to the development of public liberties; and to bring about, for this purpose, a reform of the various administrative services."

But this extract from a letter of the secretary of the League, M. Alfred Guignard, Editor-in-chief of the *Etendard*, gives the best account of the scope of the work of the new society:

"We have not drawn up a definite programme, lest it might awaken discussion and, consequently, division among our members, each of whom is now at liberty to propose and discuss, on his own responsibility, any views which he may chance to hold on this question, ranging from the most moderate kind of decentralisation up to federalism, which, according to my mind, is the true sort of decentralisation and, at the same time, the true form for a republican government.

"The aim of the League is to awaken a public sentiment favorable to local liberties. This is to be accomplished by the formation of branch societies in all the departments, arrondissements, and cantons, even; by means of lectures, books and pamphlets devoted to the principles of self-government of which we

French know so little. When a free expression of opinion shall have been secured and these views shall have been carefully examined; when a network of branch societies shall have been spread over the whole surface of France, then we shall convene a congress and promulgate a platform whose acceptance we shall try to secure from every candidate for an elective office."

But it must not be concluded from the foregoing accounts of this energetic revival of a decentralisation crusade, that that rather sentimental dream and oft-expressed hope of some French publicists, the restoration of the old historic provinces, whose names still live in popular speech and print though their boundary-lines were obliterated over a hundred years ago, will soon, if ever, be realised. "We do not think," writes M. Guignard in the letter from which an extract has just been given, "that France, so backward in the practice of liberty, and bowed for a century under the disgraceful and humiliating yoke of bureaucracy, is prepared for federalism."

It occurred to me that it would be interesting and instructive, if some of the leaders in this movement were to state briefly in writing their views on this subject,—which several have been kind enough to do. The divergencies of opinion revealed in these communications—*tot homines, quot sententiae*—prove the wisdom of the League in leaving perfect freedom to its members in the initiatory period of the organisation. I give two of them, and they are the most unisonous of the budget.

One of the Vice-Presidents of the League, M. Charles Beauquier, Deputy of the Doubs, writes:

"I understand by decentralisation the development of local liberties and the extension of the powers of the various elective bodies at the expense of those monopolised by the Central Government. Thus, I should have at the base a commune with a budget of its own, a municipal council managing all municipal affairs, and an executive committee, as in Switzerland, sharing with it the various powers now exercised exclusively by the mayor.

"After having suppressed the Council of Arrondissement and the Departmental Council, or General Council, I should place between the commune and the Central Government a Région, formed by several of our present Departments and provided with a grand Regional Council. A committee, chosen by this council, would exercise about the same powers as those enjoyed to-day by the Prefect. The sole duty of the representative of the government at the capital of the Région would be seeing that the laws were duly respected. He might even be given a veto on the decisions of the council, if it should infringe upon the reserved rights of the Central Government.

“The Central Government would have to care only for general interests. Everything relating to local matters would be managed by the municipal councils, while Departmental and Regional affairs would be treated by the Regional Councils. In this way the State would realise a considerable saving of money, for, instead of having a representative and all his subordinates at the capital of each Department, as is the case to-day, there would be but one such establishment in each Région, or group of Departments. If this plan were adopted, it would be much the same thing as restoring the old provinces.”

After thus offering his panacea, M. Beauquier takes this rather pessimistic view of the situation :

“To be exact, I ought to add that there is no chance of decentralisation being realised at present. The plan sketched above is a dream of the future, although this sort of decentralisation exists in Italy and Belgium. The question is not yet ripe enough in France. During the last legislature I introduced a bill whose purpose was to reduce notably the number of Departments; but it never got before the House. All we can now hope for is to slightly cut down the army of office-holders, to simplify administrative routine, and to augment in modest proportions the powers of the Municipal and General, or Departmental, Councils, at the expense of the authority of the Prefects. That would be something. But we cannot count on more, considering the state of the public mind and the drift of the Government. For my own part, however, I do not consider a republic solidly established unless it enjoys decentralisation. Centralisation is of monarchical essence.”

Here are the views of M. Henry Maret, a leading Deputy of the Extreme Left and Editor-in-chief of the *Radical*:

“Being an impenitent liberal, I am a partisan of the greatest possible decentralisation. Where exists centralisation, I believe there can be neither liberty nor a true republic. I consider that we could create Regional Assemblies, invested with powers now exercised by the Prefects, without endangering national unity. As it would be difficult, with over 36,000 communes, to realise communal autonomy, I would substitute for it cantonal autonomy. In other words, the canton and not the commune would be the unit. To my mind, parliament would gain in force and authority if its attention were confined solely to grand national questions and if it left to the Régions and Cantons the care of their own administration. I should even go so far as to let them decide how they should raise their taxes. The republican régime will be indestructible only when political life circulates everywhere. Until then, we will always be at the mercy of a *coup de force*.”

In a word, the present advocates of decentralisation in France declare that they desire in no wise to lift the hand against national unity secured after so much effort and waiting, nor to deprive the Central Government of any of the authority necessary for the defence of the country against foreign enemies and for the preservation of order at home. They admit that the laws should be uniform throughout the nation, and that they should be uniformly enforced; and that the treasury and the army should be in the untrammelled control of the central power. Their attack is directed only against the excesses of centralisation.

In France this theme is almost as old as the hills, as M. Léon Aucoc, of the Institute, one of the most learned of French authorities on administrative questions, has just shown in an instructive pamphlet (*Les Controverses sur la Décentralisation Administrative: Etude historique*) called forth by this revival of the subject under discussion.

He describes how the Gallic cities possessed considerable independence under the Romans prior to the reign of Trojan; how, after the anarchy out of which the feudal system arose, there was a tendency towards the reconstitution of central authority and local liberties, at one and the same time; how the royal power finally destroyed these liberties and the feudal system, till the king could truly say, *L'Etat c'est moi*; how, on the very eve of the French Revolution, there was a return towards decentralisation; how the Constituent Assembly of 1789, while continuing the political centralisation of the old régime, inaugurated so decentralising a policy in administrative affairs as to produce utter confusion, which the convention checked and then went to the opposite extreme; how the first Empire carried still further the centralising system; how it was not till Louis Philippe's reign that the pendulum began to swing in the other direction; how the work of the Second Empire in this field was “deconcentration,” as M. Aucoc prefers to call it, rather than decentralisation, and how under the third Republic, within the last quarter of a century, we have had examples of both excessive centralisation and excessive decentralisation.

A study of this past would seem to indicate that France is, in fact, about to enter upon a decentralising period; for, though Taine unquestionably expresses the sentiment of a large body of Frenchmen when he says, “Authoritative centralisation has this that is good about it,—it still preserves us from democratic autonomy,” the “*nouvelles couches*,” whose coming Gambetta announced, are slowly gaining the upper hand and democratic autonomy is likely to be attained along with that federative form of government which advanced French republicans dream of, and of which Proudhon wrote: “Who says liberty and does not

say federation, says nothing; who says republic and does not say federation, says nothing; who says socialism and does not say federation, still says nothing."

SOME DEFINITIONS OF INSTINCT.¹

BY PROF. C. LLOYD MORGAN.

THE phenomena of instinct are of interest both to biologists and to psychologists; who respectively approach them, however, from different standpoints. Whether the divergences of opinion concerning these phenomena, and the diversities of definition of the terms "instinct" and "instinctive," are mainly due to this cause, it is perhaps difficult to decide. That marked differences do exist is only too obvious.

1. *Relation of Instinct to Consciousness.*—"Instinct," says Professor Claus,² "may be rightly defined as a mechanism which works unconsciously, and is inherited with the organisation, and which, when set in motion by external or internal stimuli, leads to the performance of appropriate actions, which apparently are directed by conscious purpose." Here, then, we have instinct defined as essentially unconscious. Mr. Herbert Spencer³ regards instinct in its higher forms as probably accompanied by a rudimentary consciousness; but he does not consider the presence of consciousness essential. Professor Baldwin speaks⁴ of a "low form of consciousness which has not character enough to be impulsive"; while Professor Calderwood⁵ holds that instinctive activities cannot be attributed to mental power. "The entire chapter on Instinct in Darwin's *Origin of Species* must," he says, "be read in an altered form, consequent on the deletion of the references to 'mental faculties.'"

On the other hand, Romanes commences his definition of instinct with these words⁶: "Instinct is reflex action into which there is imported the element of consciousness." "The term comprises," he says, "all those faculties of mind which are concerned with conscious and adaptive action, antecedent to individual experience." "The stimulus," he adds, "which evokes an instinctive action is a perception." Professor Wundt also emphasises the conscious accompaniments of instinctive activities, which, he says,⁷ "differ from the reflexes proper in this, that they are accompanied by emotions in the mind, and that their performance is regulated by these emotions."

Thus, even if we exclude the extreme views of those who hold that instinctive activity is due to connate ideas, and inherited knowledge,⁸ there is a wide range of opinion on this head.

2. *Relation of Instinct to Impulse.*—Prof Wm. James speaks⁹ of "instinctive or impulsive performances." "Every instinct," he says, "is an impulse," and he implies that every impulse is instinctive. Professor Wundt¹⁰ and Herr Schneider¹¹ also regard instinctive activities as prompted by impulse; the last-named author distinguishing between sensation-impulses, perception-impulses, and idea-impulses. But other writers use the term in a

more restricted sense. Professor Höffding, though he holds¹ that "instinct is distinguished from mere reflex movement by the fact that it includes an obscure impulse of feeling," also tells us² that "impulse [here used in the narrower sense] involves a contrast between the actual and a possible or future. This," he adds, "is what distinguishes it from reflex-movement and instinct, where the excitation may perhaps cause a sensation, but where no idea asserts itself of what must follow." Professor Baldwin distinguishes³ between those stimuli and the reactive consciousness which, as originating mainly from within, may be called in general *impulsive*, and those which, as originating mainly from without, may be termed *instinctive*; but he admits that the distinction is inexact.

In introducing therefore into a description of instinctive activities any reference to impulse, the exact sense in which this word is employed itself needs definition.

3. *Relation of Instinct to Intelligence and Volition.*—Mr. H. Spencer describes⁴ instinct as compound reflex-action. Although he states clearly⁵ that "the actions we call rational are, by long-continued repetition, rendered automatic and instinctive"; yet his main thesis is⁶ that instincts are developed on the path of upward development from reflex-action toward volitional activity. Others, who are not prepared to follow Mr. Spencer in his main contention, still regard instinctive actions as essentially involuntary. Such views may be contrasted with the opinions of G. H. Lewes⁷ and Herr Schneider,⁸ who regard instinct as due to lapsed intelligence; habits formed under intelligent guidance being inherited in the form of instincts. Professor Wundt seems to go yet further when he says:⁹ "Instinctive action is impulsive, that is voluntary action; and, however far back we may go, we shall never find anything to derive it from except similar, if simpler, acts of will. The development of any sort of animal instinct, that is to say, is altogether impossible unless there exists from the first that interaction of external stimulus with affective and voluntary response which constitutes the real nature of instinct at all stages of organic evolution." Thus, while Mr. Herbert Spencer regards instinct as primarily not yet voluntary; and while many writers regard it as no longer voluntary; Professor Wundt asserts that it is at no time involuntary.

4. *Relation of Instinct to Habit.*—The word "habit," like so many others in this connexion, is used in different senses. Many writers describe all the activities of animals as their habits. In this sense we speak of habit as correlated with structure. But the term is generally used in psychology in a more restricted sense, and is applied to those activities which have become stereotyped under the guidance of individual control. A habit is, in this acceptance of the term, an acquired activity, the constancy of which is due to frequent repetition by the individual, in adaptation to special circumstances; and a distinction is drawn between such habits, as individually acquired, and instincts as connate.¹⁰ Those who accept the Lamarckian hypothesis of the origin of instincts through "lapsed intelligence" regard them as the connate effects of the inheritance of acquired habit. Darwin¹¹ and Romanes¹² be-

¹ Reprinted from *Natural Science*, of London, with subsequent corrections of the author's.

² *Text-book of Zoology*. Eng. trans., Vol. I., p. 94.

³ *Principles of Psychology*, Ch. XII.

⁴ *Text-book of Psychology. Feelings and Will*, p. 308. He also speaks of instincts as "inherited motor intuitions," p. 311.

⁵ *Evolution, and Man's Place in Nature*, p. 190.

⁶ *Mental Evolution in Animals*, p. 159.

⁷ *Lectures on Human and Animal Psychology*, Eng. Trans., p. 401.

⁸ *Instinct and Acquisition*. *Nature*, Vol. XII., p. 507. Oct. 7, 1875. The passage is quoted *infra*, p. 4636, § 6.

⁹ *Principles of Psychology*, Vol. II., p. 382. See also the passage quoted *infra*, p. 4636, § 6.

¹⁰ *Op. cit.*

¹¹ *Der thierische Wille*.

¹ *Outlines of Psychology*, p. 91.

² *Op. cit.*, p. 322. Cf. also H. R. Marshall's *Fain, Pleasure, and Aesthetics*, pp. 275-277.

³ *Feelings and Will*, p. 304.

⁴ *Principles of Psychology*, Ch. XII., § 194.

⁵ *Op. cit.*, § 204.

⁶ *Op. cit.*, § 211.

⁷ *Problems of Life and Mind*. "Instinct."

⁸ *Der thierische Wille*.

⁹ *Lectures on Human and Animal Psychology*, p. 409.

¹⁰ See, for example, Professor Sully, *The Human Mind*, Vol. II., p. 184.

¹¹ *Origin of Species*, p. 206; *Descent of Man*, Vol. I., p. 102, quoted in *Mental Evolution in Animals*, p. 264.

¹² *Mental Evolution in Animals*, p. 200.

lieved that instincts were in part due to this mode of origin. Professor Wundt, however, gives to the term a wider meaning, and so defines instinct as to include acquired habit. "Movements," he says,¹ "which originally followed upon simple or compound voluntary acts, but which have become wholly or partly mechanised in the course of individual life, or of generic evolution, we term *instinctive* actions." In accordance with this definition, instincts fall into two groups. Those, "which, so far as we can tell, have been developed during the life of the individual, and in the absence of definite individual influences might have remained wholly undeveloped, may be called *acquired* instincts."² They have become instinctive through repetition. "To be distinguished from these acquired human instincts are others, which are *connate*."³ "The laws of practice suffice for the explanation of the acquired instincts. The occurrence of connate instincts renders a subsidiary hypothesis necessary. We must suppose that the physical changes which the nervous elements undergo can be transmitted from father to son. . . . The assumption of the inheritance of acquired dispositions or tendencies is inevitable if there is to be any continuity of evolution at all. We may be in doubt as to the extent of this inheritance: we cannot question the fact itself."⁴ "Darwin's explanation of the development of instinct as being mainly the result of passive adaptation seems," says Professor Wundt,⁵ "to contradict the facts." Now the majority of writers on instinct distinguish it, as we have seen, from individually-acquired habit. And it is hardly necessary to state that Professor Wundt's explanation of the origin of connate instincts on Lamarckian principles, is not accepted by Professor Weismann and his school. "I believe," says Professor Weismann,⁶ "that this is an entirely erroneous view, and I hold that all instinct is entirely due to the operation of natural selection, and has its foundation, not upon inherited experiences, but upon variation of the germ." In view of the biological controversy as to the inheritance of acquired characters, it would seem advisable so to define instinct as not in any way to prejudice the question of origin.

5. *The Instincts of Man*.—"The fewness and the comparative simplicity of the instincts of the higher animals," said Darwin,⁷ "are remarkable in contrast with those of the lower animals." Romanes⁸ held that "instinct plays a larger part in the psychology of many animals than it does in the psychology of man." "Recent research," says Professor Sully,⁹ "goes to show that though instinctive movement plays a smaller part in the life of the child than in that of the young animal, it is larger than has been generally supposed." Professor Preyer¹⁰ tells us that "the instinctive movements of human beings are not numerous, and are difficult to recognise (with the exception of the sexual ones) when once the earliest youth is past."

On the other hand, Professor Wundt¹¹ regards human life as "permeated through and through with instinctive action, determined in part, however, by intelligence and volition." And Professor James tells us¹² that "man possesses all the impulses that they (the lower creatures) have, and a great many more besides." The higher animals have a number of impulses, such as greediness

and suspicion, curiosity and timidity, all of them "congenital, blind at first, and productive of motor reactions of a rigorously determinate sort. *Each of them, then, is an instinct*, as instincts are commonly defined. *But they contradict each other*—'experience' in each particular opportunity of application usually deciding the issue. *The animal that exhibits them loses the 'instinctive' demeanour*, and appears to lead a life of hesitation and choice, an intellectual life; *not, however, because he has no instinct—rather because he has so many that they block each other's path.*" This is in tolerably marked contrast with the statement of Darwin's which stands at the head of this section!

6. *The Plasticity and Variability of Instinct*.—"Though the instincts of animals," said Douglas Spalding,¹ "appear and disappear in such seasonable correspondence with their own wants and the wants of their offspring as to be a standing subject of wonder, they have by no means the fixed and unalterable character by which some would distinguish them from the higher faculties of the human race. They vary in the individuals as does their physical structure. Animals can learn what they did not know by instinct, and forget the instinctive knowledge which they never learned, while their instincts will often accommodate themselves to considerable changes in the order of external events." It will be noticed that there are here two groups of facts: (1) Variations, analogous to variations in physical structure; and (2) accommodations to changes in the external order of events. Professor James² says, "the mystical view of an instinct would make it invariable"; and he formulates two principles of non uniformity of instincts, (1) that of the inhibition of instinct by habits; and (2) that of the transitoriness of instincts. The variation analogous to that of physical structure is not here explicitly recognised. Romanes, who defines³ instinct as a generic term comprising "all those faculties of mind which are concerned with conscious and adaptive action, antecedent to individual experience . . . and similarly performed under similar and frequently recurring circumstances by all the individuals of the same species," appears to lay stress on their invariability; but his subsequent treatment⁴ shows that he fully recognised the connate variability of instinct. Under the head of "plasticity" he also⁵ insisted on "the modifiability of instinct under the influence of intelligence." He quotes, with approval, Huber's exclamation: "How ductile is the instinct of bees, and how readily it adapts itself to the place, the circumstances, and the needs of the community." There seems, however, some want of logical consistency in first defining instinct as connate and antecedent to individual experience, and then implying that, as modified under the influence of experience, it still remains instinct. For example, Romanes says⁶: "There is evidence to show that the knowledge which animals display of poisonous herbs is of the nature of a mixed instinct, due to intelligent observation, imitation, natural selection, and transmission." Other writers render the term "instinct" indefinite by including the effects of individual experience. Mr. A. R. Wallace, for example, says⁷: "Much of the mystery of instinct arises from the persistent refusal to recognise the agency of imitation, memory, observation, and reason as often forming part of it. Yet there is ample evidence that such agency must be taken into account." But would it not be well, one may ask, so to define instinct as to distinguish it from these agencies, and to say that the habits or ac-

¹ *Lectures on Human and Animal Psychology*, p. 388.

² *Op. cit.*, p. 397.

³ *Op. cit.*, p. 399.

⁴ *Op. cit.*, p. 405.

⁵ *Op. cit.*, p. 409.

⁶ *Essays* (1889), p. 91.

⁷ *Descent of Man*, Vol. I., p. 101.

⁸ *Mental Evolution in Man*, p. 8.

⁹ *The Human Mind*, Vol. II., p. 186.

¹⁰ *The Mind of the Child: "The Senses and the Will,"* p. 235.

¹¹ *Lectures on Human and Animal Psychology*, p. 397.

¹² *Principles of Psychology*, Vol. II., pp. 392, 3. Italics the author's.

1 E. g., Douglas Spalding, "Instinct and Acquisition." *Nature*, Vol. XII, p. 507.

2 *Principles of Psychology*, Vol. II., pp. 391-394.

3 *Mental Evolution in Animals*, p. 159.

4 *Op. cit.*, p. 190. Cf. Darwin, in the same work, pp. 372 and 383.

5 *Op. cit.*, p. 203.

6 *Op. cit.*, p. 227.

7 *Darwinism*, p. 442.

tivities of animals are of mixed origin, the term instinct being reserved for particular types of connate activity?

7. *The Periodicity and Serial Nature of Instinct.*—Little need be said on this head, since most writers recognise the facts as, at any rate in many cases, characteristic of instinct. The sexual instincts, nidification, incubation, and migration, exemplify the periodic nature of instinct; and the fact that this periodicity involves internal as well as external determination suggests the rejection of Professor Baldwin's distinction between impulsive and instinctive, not because it is logically incorrect, but because there is so much overlap, many instincts involving an impulsive factor. That instincts are very often serial in their nature and involve a chain of activities is also commonly admitted, and is well brought out by Herr Schneider.¹

8. *Suggested Scheme of Terminology.*—From what has gone before, it will be seen that there is a good deal of diversity of opinion and of definition in the matter of instinct. Let us summarise some of these diversities.

Instinctive activities are unconscious (Claus), non-mental (Calderwood), incipiently conscious (Spencer), distinguished by the presence of consciousness (Romanes), accompanied by emotions in the mind (Wundt), involve connate ideas and inherited knowledge (Spalding); synonymous with impulsive activities (James), to be distinguished from those involving impulse proper (Höfding, Marshall); not yet voluntary (Spencer), no longer voluntary (Lewes), never involuntary (Wundt); due to natural selection only (Weismann), to lapsed intelligence (Lewes, Schneider, Wundt), to both (Darwin, Romanes); to be distinguished from individually acquired habits (Darwin, Romanes, Sully, and others), inclusive thereof (Wundt); at a minimum in man (Darwin, Romanes), at a maximum in man (James); essentially congenital (Romanes), inclusive of individually-acquired modifications through intelligence (Darwin, Romanes, Wallace).

It is scarcely probable that in the face of such divergence of opinion unanimity is yet within the bounds of reasonable expectation, and the following scheme must be regarded as provisional and suggestive. Certain points must be borne in mind in endeavoring to frame satisfactory and acceptable definitions of the terms "instinctive" and "instinct." Since the phenomena are in part biological and in part psychological, any definition should be such as to be of biological value and yet such as to be acceptable to psychologists. Since the question of origin is still *sub judice*, the definition should be purely descriptive, so as not to prejudice this question. And since the phenomena of instinct can only be rightly understood in their relation to automatism, congenital and acquired, to impulse, to imitation, and to intelligence, our definition of instinctive activities should find a place in a scheme of terminology. Such a scheme is here set forth.

It may be premised:

1. That the terms "congenital" and "acquired" are to be regarded as mutually exclusive. What is congenital in its definiteness is, as prior to individual experience, not acquired. The definiteness that is acquired is, as the result of individual experience, not congenital.
2. That these terms apply to the individual. Whether what is acquired by one individual may become congenital through inheritance in another individual is a question of fact which is not to be settled by implications of terminology.
3. That the term "acquired" does not exclude an inherited potentiality of acquisition under the appropriate conditions. Such inherited potentiality may be termed "innate." What is acquired is a definite specialisation of an indefinite innate potentiality.
4. That what is congenital and innate is inherent in the germ-plasm of the fertilised ovum.

Our suggested terminology then is as follows:

Congenital movements and activities: those, the definite performance of which is antecedent to individual experience. They may be performed either (a) at or very shortly after birth (*connate*), or (b) when the organism has undergone further development (*deferred*).

Congenital Automatism: the congenital physiological basis of those activities the definite performance of which is antecedent to individual experience.

Physiological rhythms: congenital rhythmic movements essential to the continuance of organic life.

Reflex movements: congenital, adaptive, and co-ordinated responses of limbs or parts of the body; evoked by stimuli.

Random movements: congenital, more or less definite, but not specially adaptive movements of limbs or parts of the body; either centrally initiated or evoked by stimuli.

Instinctive activities: congenital, adaptive, and co-ordinated activities of relative complexity and involving the welfare of the organism as a whole; specific in character, but subject to variation analogous to that found in organic structures; similarly performed by all the like members of the same more or less restricted group, in adaptation to special circumstances frequently recurring or essential to the continuance of the race; often periodic in development and serial in character.

Imitative movements and activities: due to individual imitation or similar movements or activities performed by others.

Impulse (Trieb): the affective or emotional condition, congenital or acquired, under the influence of which a conscious organism is prompted to movement or activity, without reference to a conceived end or ideal.

Instinct: the congenital psychological impulse concerned in instinctive activities.

Control: the conscious inhibition or augmentation of movement or activity. While the power of control is innate, its special mode of application is the result of experience and therefore acquired.

Intelligent activities: those due to individual control or guidance in the light of experience through association (voluntary).

Motive: the affective or emotional condition under the influence of which a rational being is guided in the performance of deliberate acts.

Deliberate acts: those performed in distinct reference to a conceived end or ideal (volitional).

Acquired movements, activities, or acts: those, the definite performance of which is the result of individual experience. Any modifications of congenital activities which result from experience are, so far, acquired.

Acquired automatism: the individually modified physiological basis of the performance of those acquired movements or activities which have been stereotyped by repetition.

There is certainly some overlap in the definitions, and it is difficult to see how such overlap is to be avoided. The physiological rhythms—such as the heart-beat, respiratory movements, and peristaltic action—are in part automatic, in the physiological sense of originating within the organ which manifests the rhythm; but they are also in part reflex. The line between reflex movements and instinctive activities cannot be a very rigid one; instinctive activities are indeed in large degree organised trains or sequences of co-ordinated reflex movements.

Although the psychological aspect of instinctive activities falls under the general head of impulse, yet impulse is broader than instinct—that is, if we adopt the definitions above suggested. On the one hand, some reflex movements are probably accompanied by impulse. On the other hand, when intelligent activities pass into habits through repetition, the performance of these habits is prompted by impulse. Impulse may, in fact, be either con-

¹ *Der thierische Wille*, e. g., p. 208.

genital or acquired, and may be associated both with automatism and with control. Instinct is a form of congenital impulse. As such it may be counteracted or modified by an acquired impulse due to pleasurable or painful experience. A chick, for example, which has run after and seized a cinnabar caterpillar, acquires through experience a counteracting impulse due to the disagreeable effect. The congenital impulses, termed instincts, may thus be modified by acquired impulses which result from experience; but there is seldom or never a conflict of instincts, as these are above defined.

Whether the objective activities termed instinctive are *always* accompanied by the subjective congenital impulse termed instinct is a question which is open to discussion.

A wider definition of instinct by which it would be synonymous with congenital impulse may be suggested as an alternative to that above given. This would, perhaps, be more in accord with the popular use of the word "instinctive," but it appears to be less satisfactory as a definition of the technical term.

It is well to distinguish motives, as the determinants of deliberate acts, from the acquired impulses which are the determinants of intelligent activities as above defined. As the intelligent activity is often the outcome of a conflict of impulses, so is the deliberate act the outcome of a conflict of motives.

Imitative activities are due to an imitative impulse. Some of them are probably involuntary and due to congenital impulse; but others are certainly due to intelligent imitation. They form a group sufficiently well-defined to warrant the distinct place assigned to them in the suggested scheme.

The habits of animals are in very many cases of complex origin. It is claimed that such a scheme of terminology as is above suggested may serve to aid us in discriminating between the several factors, instinctive, imitative, and intelligent. The fact that many instinctive activities are subject to modification through imitation and experience clearly indicates that they at least are accompanied by consciousness. But it is submitted that, when thus modified, they cease to be instinctive, that is, if *congenital* is to take its place as an integral part of the definition of instinct. They should be termed habits.

The distinction between congenital, on the one hand, and acquired, on the other hand, is a definite one. Objectively considered, those activities, the performance of which is, so far as they are concerned, antecedent to and irrespective of individual experience and guidance, are congenital, no matter at what stage of life they are performed; while those activities, or modifications of activity, which are performed as the result of individual experience, are acquired—any modification of congenital organic structure correlated therewith being an acquired character. Subjectively viewed, those impulses which are nowise dependent on antecedent experience of pleasure or pain are congenital; while those which are due to individual experience are acquired. In any given case of animal habit it may be difficult to determine how far it is due to congenital activity, and how far there is acquired modification. But this difficulty is more likely to be overcome by observation and experiment, if the exact terms of the problem are kept clearly in view.

NOTES.

We are in receipt of a beautiful Buddha statue which was sent by the Rev. Shaku Soyen, of Kamakura, Japan. The statue is a piece of exquisite art, made by an unknown artist of the last century. It is carved wood, delicately emblazoned with gold, and stands in a lacquered shrine about one foot high. The calm and noble attitude of Buddha gives evidence of both the artistic taste and the religious devotion of the Japanese artist. We here express publicly our heartiest thanks to the distinguished Buddhist priest for his kind remembrance and beautiful gift.

Dr. Eduard Reich is a prolific writer who discusses the practical sides of social, religious, and philosophical questions in simple and straightforward language and with considerable scientific knowledge. His latest production is now in our hands under the title of *Philosophie, Seele, Dasein und Elend* (Amsterdam and Leipzig: August Dieckman), constituting Vol. II of his *Philosophical Reflexions and Studies in Hygienic Sociology*. Dr. Reich's distinctive point of view is the hygienic. The close connexion of spiritual with bodily and social health is his main theme, which is developed in all its multitudinous aspects. Dr. Reich stands aloof from the accredited scientific circle of Germany, but his books are full of suggestive if not striking ideas, simply presented.

A new monthly magazine devoted to university interests and general literature, under the title of *Bachelor of Arts*, published its first number in May last. Mr. Walter Camp will edit the athletic department, Mr. W. D. Howells will write literary critiques, Mr. Albert Stickney will contribute articles on political and economical questions, and others equally well known are expected to contribute. The *Bachelor of Arts* gives every indication of attaining a high standard of excellence, and should be widely patronised by college men. (15 Wall St., New York.)

SWINBURNE.

BY CHARLES ALVA LANE.

Incaruate Son of Song, 'mid battles born
Of Freedom's womb! whose bosom menward yearns
From crystal heights where manhood's lordship spurns
The shackling shams of grievous dogmas worn
From erring eld! who, voiced as with the morn,
Before the portal of the morrow turns,
Singeth, Apollo-like, a song that burns
With sovereign Soulhood round a faith forlorn!

We hail thee o'er the sea, where Liberty,
Like Memnon touched, gives echo to thy song,
And Art, with palms prest, pants in ecstasy
Amid thy wafted wealth of melody,
Whereof hath prescient music dreamed for long,
With sense that bearkened toward the spherly throng.

THE OPEN COURT

"THE MONON," 324 DEARBORN STREET.

CHICAGO, ILLINOIS, Post Office Drawer F.

E. C. HEGELER, PUBLISHER.

DR. PAUL CARUS, EDITOR.

TERMS THROUGHOUT THE POSTAL UNION:

\$1.00 PER YEAR.

\$0.50 FOR SIX MONTHS.

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