

be here out of place, but I contend that it is a 'hypothesis' which not only, if true, explains the relation of Egoism and Utilitarianism, but is also 'verifiable by experience'. If it be verified, Ethical Science will stand on a firmer foundation than the sorrow we should feel if it were not true.\*

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#### IV.—THE SO-CALLED ANTINOMY OF REASON.

MENTAL action is known to us in one or other of three states, namely, awake or asleep or in an intermediate state which may be called somnolent. When awake the mind is simultaneously aware both of its actual surroundings and of itself. In normal sleep it has ceased to be aware of its actual surroundings and is unconscious. And in the somnolent state it is what may be called half-conscious. It may be obscurely aware of its surroundings or obscurely aware of itself but not of both simultaneously. Thus the light of the morning may awake the sleeper and he may *see* before the thought of *self* or any inner feeling at all has awoke. In all ordinary cases of awaking out of sleep, feeling is indeed imminent or immediately consequent upon perception. But the two, the objective and the subjective, are not only separable in analysis, they are occasionally separable also in time. Supposing the term sensibility to imply feeling and the term perceptivity to imply merely a capacity of being impressed by an object in some way that is somehow representative of that object, perceptivity is a simpler function than sensibility. Leibnitz in laying hold of perceptivity as the elemental conception of mind, was more happy and opened the way to a larger, a more harmonious, and philosophical conception of the universe than Kant who placed sensibility in this position. Those who insist upon both as inexorably given simultaneously, and who maintain that sub-

\* Since the foregoing paper was in print, I have seen Mr. F. H. Bradley's elaborate examination of *The Methods of Ethics*. His criticism and mine are curiously divergent; but there is at least one of his beliefs, which he mentions incidentally, in which we are agreed—namely, that the only consistent Hedonism is Egoistic. Even that, however, he would take as an argument *against Hedonism* (for I fear he would not waste much politeness over the mental or moral qualities of an Egoist); whereas I have ventured to consider it an argument *for Egoism*. The difference between Mr. Bradley and myself, though it looks enormous, is in reality curiously small. I quite agree that Virtue is the Realisation of the will; only I add, the will is Pleasure. This I fear he will consider an 'irreducible minimum'. However, even that is sometimes got over; and a question of fact, which I hold this to be, should never be irreducible.

ject-object is the primal, the inseparable and true unity, and the only warrantable basis of philosophic belief, can never get beyond it. While appealing to consciousness as their supreme authority, they do violence, when they have proceeded but a little way, to that cumulative testimony of mankind which goes by the name of common sense; which nevertheless philosophy must respect if it is ever to be suitable for general culture, and to contribute to the intellectual and moral advancement of humanity.

The co-existence (so far as can be discovered) at the same moment of subject and object in the mind, that is, the existence of subject-object as the undivided and seemingly indivisible datum of the mental functioning, is not a state of things in which mind must be always unavoidably and necessarily involved. It is on the contrary only the product of a rhythmical action in mind that is proper to the waking state, depending on a corresponding somatic rhythm which may be roughly compared to the polarised state in the merely dynamic economy of nature.

At any rate in this two-fold mode of mental action which manifests at once the outward and the inward, the objective and the subjective, there may be detected a notable difference between the two phases in which it consists. In that which gives the objective, the mind is merely receptive and may be somnolent. Its principal relations are, as we may say, cosmical. That which gives the subjective wakes up in affirming what the other presents to belief. But this is not all; it forthwith proceeds to constitute consciousness, that is, to make place for itself in the midst of the inflowing tide of intuitions or informations, to defend itself against encroachments, to aggrandise itself, and ultimately to exclude or deny what the cosmical relation presents to belief, and which it is the first duty of the mind to affirm. As the former phase has been said to be cosmical, constitutional, spontaneous, merely a capacity—in function afferent or inbringing, so may this be said to be personal and volitional or of the nature of a power—in function efferent or aggressive. In brief and more familiarly, the former is the mind in its naturally synthetic phase of mental action; the latter is the mind in its analytic phase. And in one or other of these phases, usually in both simultaneously, more or less, and in none others, the mind as an intellectual agency always is when the individual is awake.

During sleep, the volitional, the analytical, phase retreats as it were or sheathes itself in the spontaneous, the synthetic phase, and leaves the mind simply intuitional or informational. Not that an undisturbed intuition of reality ensues, because the mind when in the brain is like a magnetic compass in the hold of an iron ship, which instead of pointing steadily to the pole reels

about, and if believed would mislead. Similarly during sleep, instead of a simple listening for impressions or an open steady intuition of reality, there is induced in all ordinary cases a careless play of mind and the presentation of only a mock-reality, a creation of the imagination—a dream.

Between these two phases of mental action it is further needful to be remarked that the cosmical, the spontaneous, the synthetic phase, however long-continued, implies no exhaustion of mental energy but rather the reverse, and therefore tends to pass through reverie into ecstasy; while the volitional, the personal, the analytical phase, being the outcome of the personal energy, does imply exhaustion and is ever liable to discharge itself in motion. Nevertheless this dynamic inequality between the two phases exists in the interest of the real and the true, provided error be not already in possession of the mind. Where this is the case then on the contrary, this liability of the analytic power to weakness in the weak and mere emotion in the strong gives rise to a general liability to believe what may not be belief-worthy, in one word, to credulity.

Supposing the mind thus awake, aware both of itself and its environments, to exist in the midst of any panorama, then, whilst its cosmical or synthetic phase secures to it a belief in the existence of that panorama, its analytical, volitional or personal phase, acting as *selective attention* or as it is more generally named *abstraction*, can vivify to any extent it pleases individualised objects in the given panorama, the mind becoming blind to object after object till they are all gone. The question is what remains of the original panorama as matter of direct and immediate intuition, the surviving datum of the sustained synthetic phase of the mental state? To this the answer is that there remains the intuition of the place where the now vanished objects were; there remains the intuition of room for any individualised objects which may be introduced again into the ambient where objects were before; there remains the intuition of SPACE implying a condition of the possibility of external objects, a conviction so deep-seated and constitutional that it is impossible to deny it or to conceive it to be otherwise.

Nor is there given to the mind in virtue of its synthetic phase, when in its place in nature, an intuition of Space only; it also obtains and cannot escape from an intuition of BEING or that which exists. This intuition indeed flows from a two-fold source and stands on a double basis, namely the inward manifestation of the mind to itself and the outwardly experienced fact producing the conviction that the intuition of space has in it more than mere emptiness, has in it, in a word, that for which there is no mistake in naming it Being.

Moreover, these intuitions of Space or immensity, and of Being or existence, when thus given by the mind in its cosmical or synthetic phase, are given wholly without limits, and not negatively but positively INFINITE. During the phase of mental existence which we have been considering, no limit has appeared. The idea of a limit has not yet emerged. There is nothing as yet to embarrass or stop the influence of the intuition in that character which the intuition itself ascribes to its object, namely Infinity. And here let us remark that the acceptance or the rejection of this view ought to depend entirely on what may be called the natural-history character of the intuition by those who have that intuition, not on the issue of an analysis which, though designed to be merely searching, yet so often proves to be destructive. Now the place which the idea of the Infinite has taken and holds in the history of humanity, especially in the most enlarged and elevated minds of all ages, demonstrates in a natural-history point of view that the Infinite is not a merely negative but a truly positive object. But it is not to be forgotten that during the state which we have been considering the embodied mind is supposed to be, although conscious, yet on the eve of sleep, the personal activity being in abeyance. That such a state of naked intuition does occur occasionally in the spontaneous course of life must, I think, be admitted. Nor are we, the victims of the over-activity of the West, as appears to me, warranted in denying what the meditative minds of the East affirm, that such a state is attainable by education—by a life-long discipline of contemplation and repose.

When we are fully awake as in all ordinary states of thinking, when the personal, the volitional, the analytic phase of mind is in action, a remarkable change comes over the previous character of our intuition. Conception then takes the place of simple intuition. Definition or an attempt to define everything, and in every case a LIMIT, then emerges. And it is reproduced as often as the recurrence of the previous state of intuition puts it out of the way.

The reason of this is that the mind when acting as a specially individualised being, itself limited in energy as it ever is and ever must be, co-ordinates and ever must co-ordinate its views of things with itself as its principal object of regard. This, the cosmical law of assimilation compels. What the primal intuition gives therefore to the mind as a pure receptivity, the personal functioning being in abeyance and reality truly mirroring itself in the reposing soul, (in which case reality is felt and seen to be infinite and absolute), the mind when acting out from itself reflectively, volitionally, personally finds to be like itself finite and conditioned.

Hence the infinitude, the boundlessness of space, as given in the pure intuition of it, is interfered with. A limit is fixed upon. And though the primal intuition as often as it recurs obliterates that limit and carries thought beyond it, yet in the next fit of the mind's personal action the limit is reproduced. But it is now more distant than before. And so on alternately as long as any one pleases. The ultimate view is thus a conception of a sphere, the mind in the centre and the periphery too distant to be considered. Yet a periphery is affirmed to exist somewhere, because the mind's own activity is more important to itself than its receptivity of impressions, and therefore it claims the last word.

The same phenomenon occurs when, instead of thinking of space in all its immensity, we think of it as the smallest volume conceivable. The personal activity comes in here as before, but now to exhaust space or bring it to a close. No such issue however is possible. In virtue of the infinitude of the primal intuition, a volume still remains after every act of dichotomy—I do not say after every section, for space is essentially continuous and cannot be divided. When it is cut into, it exists in the partitionments the same as on their sides. Instead of being infinitely divisible as is commonly said, space is not divisible at all. It is absolutely fixed as well as infinitely extended.

In these respects Space differs from Being, from matter for instance. Thus let the atom, the true material element, be merely a centre of force so that the extension of body shall be produced by centres of force in juxta-position, balanced at proper distances from each other by their reciprocal attractions and repulsions, then as there is a natural so is there a logical limit to divisibility when these elements are separated or viewed as separate from each other; for a centre is that which has indeed position in space but has not space within itself. It has no volume or magnitude to supply a field for the mind in its analytic phase to affirm infinite divisibility of it. And following so far in the footsteps of Leibnitz and Boscovich by the aid of the discoveries of modern chemistry, I have shown that on such a view of matter the phenomena of the molecular world may be explained to an unprecedented extent, and indeed without limit.

The view which we have obtained by banishing from thought all individualised objects, and leaving only what cannot be got rid of, has given us as necessary or unavoidable intuitions absolute being and sufficient and therefore infinite room for it or space. And these intuitions are so blended, so simultaneous and united, that when they first come in they do not force upon the mind the idea of change. Nevertheless they are a couple. They imply an alternative. And the mind in its activity and natural restlessness soon shifts and varies its regard from the one to the

other, and thus feels a change, and remembering it marks a difference and makes it the object of reflection. And thus the mind becomes cognisant of change and succession, and consequently of duration, in a word, of TIME. Time thus comes into the mind as the medium or possibility of change. So far then it is analogous to space. Like space it is a field for the occurrence of phenomena. But both in its genesis and in its relations time differs remarkably from space. Thus space is discovered to the mind in its synthetical, its cosmical, its spontaneous and unavoidable phase of action. Time is discovered and we may say created by the mind in its personal, its analytical, its volitional phase of action. Space is a manifestation in the objective or outward field of thought, time in the inner. Nevertheless there is such reciprocal urgency between the ideas of space and time, that it may be questioned whether it is possible to think of mere or pure time without the idea of space intruding itself into the thought. Thus whenever there is in the mind the idea of time there must be simultaneously the cognisance or conception explicitly or implicitly of at least two distinguishable objects. Now in consequence of this, though the pure idea of time regards them only as successive, yet the imminence, the constant presence, of the idea of space is ever apt to interpose the thought that there is some distance between them, and so to mix up the idea of space with that of time. Hence nothing more common even in philosophic works than to find the author speaking of a 'space of time' instead of a 'duration of time'. In consequence of the poverty of language indeed it is impossible to avoid speaking of 'the length of time', 'the shortness of time', though these terms apply literally to space only.

Hence also the degradation of both ideas when space is spoken of as extensive quantity, and time as protensive quantity, conceptions which apply only to volume and movement not to space or time at all.

It is this confusion which prevents our being able to think of a beginning or an end of time. In itself the thought is as easy as is the thought of a beginning or an ending of change. This, it may be said, is impossible also. And so no doubt it is, so long as the consciousness or the surreptitious influence of life enters into our thought; for life is change. For a like reason it is impossible, while the doctrine of cause is in possession of the mind; for life is cause as well as change. But as to mere time, succession, duration, that which the observation of change imparts to the mind, it must cease when all observation of change ceases. To a Being with whom there is no variableness nor shadow of turning, there can be no past, no future, all must be one present panorama. There is no field for time. Eternity in that case holds the place

of time. Now this idea—Eternity—is not, as nevertheless it seems to be, the synthetic conception of all times considered as one. Eternity is not the totality of time. Thought, when from time it has slid into eternity, has unconsciously changed its ground, and is in point of fact contemplating the infinite. The thought which is the product of the personal activity has given place to that which is given by the cosmical intuition.

There is nothing therefore which is merely poetic and figurative in the anticipation of an epoch when time shall be no more. It is rather a promise to the soul of a higher mode of intuition, when it has attained the lucidity of a true repose, when, as the Buddhist philosophers say, "the pride of the I am is subdued."

The tenet that an absolute beginning and an absolute ending of time are unthinkable is the result of confusion of ideas and defective analysis. What is thought of as the ground of such an affirmation is not "pure time" but "space of time," not the field of change but the field of existence. The latter is indeed truly beginningless, truly unending; and to attempt to estimate it by adding time to time or volume to volume, or in any way by the use of the personal or analytical power of the mind, is vain. A sum of numbers or of forms, however great or vast, remains for ever infinitely short of the infinite. This is a simple indivisible intuition given to the mind when reposing in its cosmical relation. All attempts whether to realise or to deny it by the exercise of the personal, the volitional, the analytical action of the mind are misapplied and futile. The alternate affirmation and denial by the mind of the absolute, the infinite, is not a valid contradiction. It is not an antinomy in reason. It is only the result of a mistake in the use of reason, or rather indeed of reasoning. That which the philosopher of Königsberg called the practical reason is best entitled to the name of reason without any qualification. It is the information of the mind when functioning in its cosmical phase and lighted up by intuition with all the greatest cosmical truths. The question as to the way in which the embodied mind comes to be possessed of these truths, whether at once by the imminence, the penetrative power, and the immediate impressiveness upon it of the corresponding realities, or piece-meal by Zoic development and the synthesis of lower instincts, need not be considered. Our mental inability to grasp and see through combinations which are manifold, and our consequent demand for that which is simple and easily conceivable, will always secure a popular vote in favour of development. Meantime the knowledge of the fact is the main thing. And intuition in man cannot be cogently denied so long as instinct in animals is granted. Surely, too,

we ought to pay the greatest respect to intuition so far as it is verified by reality, since all that we can do by way of reasoning and demonstration is to infer identity—not where there is no difference but—where no difference appears to us.

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#### V.—'CRAM.'

A HUMAN institution has like man its seven ages. In its infancy unknown and unnoticed, it excites in youth some interest and surprise. Advancing towards manhood, every one is forward in praising its usefulness. As it grows up and becomes established, the popular tone begins to change. Some people are unavoidably offended or actually injured by a new institution, and as it grows older and more powerful, these people become more numerous. In proportion to the success of an undertaking, will be the difficulties and jealousies which are encountered. It becomes the interest of certain persons to find out the weak points of the system, and turn them to their private advantage. Thus the institution reaches its critical age, which safely surmounted, it progresses through a prosperous middle life to a venerable old age of infirmities and abuses, dying out in the form of a mere survival.

There is no difficulty in seeing what period of life the examination-system has now reached. It is that critical age at which its progress is so marked as to raise wide-spread irritation. To abuse examinations is one of the most popular commonplaces of public speeches and after-dinner conversation. Everybody has something to say in dispraise, and the reason is pretty obvious. Many persons have been inconvenienced by examinations; some regret the loss of patronage; others the loss of patrons and appointments; schoolmasters do not like having their work rudely tested: they feel the competition of more far-sighted teachers who have adapted themselves betimes to a new state of things. In these and other ways it arises that a formidable minority actually have good grounds for hating examinations. They make their feelings widely known, and the general public, ever ready to grumble at a novelty of which they hear too much, and do not precisely appreciate the advantages, take up the burden of the complaint.

Fortunately, too, for the opponents of examination, an admirable 'cry' has been found. Examination, they say, leads to 'cram,' and 'cram' is the destruction of true study. People