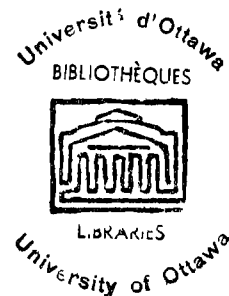


THE PHILOSOPHY OF
CHARLES AUGUSTUS STRONG

by

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PREFACE

The main intention of this study is to give a positive exposition and critical appraisal of the philosophic work of Charles Augustus Strong.

Professor Strong himself was born November 28, 1862, and died January 23, 1940. From 1881 to 1883 he attended the "Gütersloh Gymnasium" in Germany and received his A.B. degree from the University of Rochester the following year, 1884. He also was given an L.L.D. from the same place in 1919, having already received another A.B. degree from Harvard in 1885.

He also studied at Rochester Theological Seminary from 1885 to 1886. He was at Berlin, Paris, and Freiburg at various times during the years, 1886 to 1890. However, on March 22, 1889, he was married to Bessie Rockefeller, the daughter of John D. Rockefeller.

He was Instructor of Philosophy at Cornell University from 1887 to 1889, docent at Clark University in Ohio in 1890, Associate Professor of Psychology at the University of Chicago from 1892 to 1895, and finally a lecturer in Psychology at Columbia University from 1895 to 1903. He became full Professor at the last institution in 1903 and continued to teach there until 1910. It was during this latter period at Columbia that his wife died, in the year

1906. In 1912, he moved to Italy to live.*

With this wide and variegated career of Professor Strong kept in mind as background, the specific objectives of this study will be to ascertain the basic principles of his Critical Realism, which was voiced against Neo-Realism, and then to see how his own epistemological position grew out of his psychological position of Panpsychism, which he regarded as the only solution to what he considered to be the mind-body problem. Investigations will also be made into his views on Time, Space, Being, Consciousness, and Free Will; also his views on Morality. Attention also will be given to relevant historical influences. And finally, a general critique shall be made, giving an overall value of his work.

We wish at the outset to express our gratitude to the Rev. Romeo Trudel, C.M.I., whose inspiration and guidance led to the realization of this study, but whose untimely death did not allow to view in its final form. Consequently, many thanks are due to the Rev. Gerard Gagnon, C.M.I., for continuing the direction of this study and seeing to its completion. The author also wishes to express his gratitude to the many Professors at the University of Ottawa, whose teachings have enabled him to gain a deeper understanding

* The above biographical information has been obtained from Who Was Who in America, Vol. 1, Chicago: A.N. Marquis Co., 1942, pp. 1847-1942, and Webster's Biographical Dictionary, first Ed., G. and C. Merriam Co., Springfield, Mass., U.S.A.

of the views put forth in the works of Professor Strong, whose tireless and unrelenting spirit was undoubtedly motivated by the deepest and sincerest respect for the simple truth.

CHAPTER I.

TOWARD CRITICAL REALISM THROUGH PANPSYCHISM

Part 1: The Emergence of Critical Realism in America.

Section A. The Beginnings of American Realism

In April of 1870, at the age of twenty-eight, young William James was struggling with the most important intellectual crisis of his life - the solution to which was to influence radically the thought of all his students, disciples, and successors in the history of American philosophic thought. This crisis had to do with the choice between the monistic and idealistic theme in which he had been schooled and the pluralistic view of the universe, expressed by one Charles Bernard Renouvier. At the brink of suicide, he chose the latter course and thus began a theme of Realism which has left its imprint on the interpretation of American thinkers to recent times. In his unfinished work, "Some Problems of Philosophy",¹ he says:

"Renouvier...was one of the greatest of philosophical characters, and but for the decisive impression made on me in the seventies by his masterly advocacy of pluralism, I might never have got free from the monistic superstition under which I had grown up."

In 1872, he began teaching at Harvard and for forty years he expounded and developed the germs of the solution he had finally reached in a general declaration of the individuality of truth, personal freedom of will, and the rejection

1. Letters of William James, Vol. 1, p.186; pp.144-148; the incident is described in detail by M.C.Otto in Schaubb's Philosophy Today, pp.41,42.

of the universe as having absolute control over one's personal destiny. Over the span of his living expression of this trend of philosophic thought, he spearheaded the thinking of many American philosophers in the direction of Realism and even influenced the thought of England, which was only too happy to free itself from Hegelianism, so popular on the face of Europe, and play true to its continued empirical tradition. And so it was this return to the emphasis on the individual and the person, instead of the universal and the absolute of monistic idealism, that led to the eventual establishment of Realism as an explicit thesis in America.

Section B. James' Realism and Royce's Idealism

James, however, did not go completely unchallenged; he had an opponent, an American philosopher, but distinctly European trained, expressing the opposite viewpoint at Harvard, James Royce (1855-1916). When Royce came to Harvard in 1882 with his doctrine of Absolute Idealism from his study in Europe, James' views became more distinctly crystallized in opposition to Royce's particular ones and the current idealistic stand in general. In his "Letters," II, 18, he writes: "I will go at it again this winter, when I settle down to my final bout with Royce's theory, which must result in my either actively becoming a propagator thereof, or actively its enemy and destroyer" (1893). Earlier in 1880, he writes in the same "Letters," I, 208: "My principal

amusement this winter has been resisting the inroads of Hegelism in our University. My colleague Palmer...has been making an active propaganda among the more advanced students". Now in Royce's address before the Philosophical Union of California, 1895, he expresses his position quite clearly; developing the thesis that human experience implies absolute experience, he explains the argument in this manner:

"Every intelligent interpretation of an experience involves, however, the appeal from this experienced fragment to some more organized whole of experience, in whose unity this fragment is conceived as finding its organic place. To talk of any reality which this experience indicates, is to conceive this reality as the content of the more organized experience. To assert that there is any absolutely real fact indicated by our experience, is to regard this reality as presented to an absolutely organized experience in which every fragment finds its place...

Our result then is this: There is an Absolute Experience, for which the conception of an absolute reality is fulfilled by the very contents that get presented to this Experience. This Absolute Experience is related to our experience as an organic whole to its own fragment."²

Therefore, what we mean by an external world can only exist as the ideal, or the objective toward which our purposes draw us: reality is the objective attainment of personal purposes. This accords completely with the generic formulation of idealism - nothing is known to mind but the representations of its own consciousness - but it further looks to the practical, the order of action, of will.

James is of course of a completely different turn of mind on the same point; he says:

2. Royce, Josiah, The Conception of God, New York, 1897, pp. 42-44.

"the word 'practical' is habitually loosely used that more indulgence might have been expected. When one says that a sick man has now practically recovered, or that an enterprise has practically failed, one usually means just the opposite of practically in the literal sense. One means that, although untrue in strict practice, what one says is true in theory, true virtually, certain to be true. Again, by the practical one often means the distinctively concrete, the individual, particular, and effective, as opposed to the abstract, general, and inert. To speak for myself, whenever I have emphasized the practical nature of truth, this is mainly what has been in my mind. 'Pragmata' are things in their plurality; and in that early California address, when I described pragmatism as holding 'the meaning of any proposition can always be brought down to some particular consequence in our future practical experience, whether passive or active,' I expressly added these qualifying words: 'the point lying rather in the fact that the experience must be particular than in the fact that it must be active.'"³

It thus becomes apparent that the main opposition between Idealism and Realism in the American exponents of these terms is the traditional paradox between the Universal and the Particular, the Abstract and the Concrete. Now the reason why we bring this to light here is that it provided the focus of thought and choice for the succeeding schools of American thought - especially those of Realism.

Ralph Barton Perry, one of the students at Harvard at the time, who was later to become an active proponent of Neo-Realism, described the general situation as follows:

"At Harvard in the late nineties it was, for most of us, a choice between James and Royce....As regards fundamentals, whether of doctrine, method, or temper of mind, there was the way of Royce, and the way of James..... James provided the rallying point for those in whom the

3. James, William, The Meaning of Truth, New York, 1909, pp. 208-210.

youthful spirit of revolt was stronger than tradition and prestige. Royce was the latest and nearest of a mighty race. His philosophy was powerfully reinforced by the texts of Bradley and Green and by the great cult of Kant. His was the party of law and order, of piety and decency. This was not Royce's fault, nor did it at all adequately express his personal traits; but he suffered, none the less, from the taint of established things. So when James, overcoming his earlier fears, had the audacity to make jokes about the Absolute, there were Athenian youths who laughed with him...The spell of absolute idealism was irreparably broken. There arose a generation of younger philosophers who were, as Creighton expressed it, (speaking more in sorrow than in anger) 'flippant like James'." ⁴

Realism, originating in America with James, maintains then primarily that the world we experience is real and independent of our knowledge of it; in general, it holds that physical reality can be related to a knower and still exist in itself independently.

However, although both James and Royce will differ in regarding the cognitive side of the real as pertaining to an object which is extramental for James and intramental for Royce, they will both agree that it owes its ultimate justification to the will. As James puts it:

"The willing department of our nature...dominates both the conceiving department and the feeling department; or, in plainer English, perception and thinking are only there for behavior's sake." ⁵

Royce, in turn, with the Absolute in mind, explains it in this manner:

"A present thought and a past thought are in fact

4. Contemporary American Philosophy, Vol.II, p.187.

5. James, William, The Will to Believe and other Essays in Popular Philosophy, N.Y., 1897, p.114.

separate, even as were John and Thomas. Each one means the object that it thinks. How can they have a common object?" (this is the question on their reconciliation with the Absolute) "Are they not once and for all different thoughts, each with its own intent? But in order to render intelligible the existence of errors about matters of fact, we must make the unintelligible assumption, so it would seem, that these two different thoughts have the same intent, and are but one." ⁶

Here Royce deals with the question of how two ideas in two consciousnesses can not be compounded on grounds of cognition, but only on grounds of ultimate appetite or will, the Absolute or God Himself. By ultimate desire or intent, men can transcend their individual selves, which is but illusion anyway on grounds of cognition, and live in genuine unity in the self-identity of will. ⁷

Previously, we marked the opposition between James and Royce in the Particular versus the Universal, and now we note the deeper opposition - that of reality being considered as existent in terms of will: a particular, concrete existence for James, and a universal, abstract, and absolute one for Royce. And in going back to the influence of Renouvier on James with regard to the latter's embrace of Pluralism, we find that Renouvier and James both accepted it on voluntaristic grounds; as Renouvier himself says:

"We discriminate in the structure of certitude, besides an intellectual aspect, two forces from which we do not separate it: the force which urges to affirmation and

6. Royce, Josiah, California: a Study of American Character, Boston, 1886, p.501.

7. cf. Schneider, Herbert W., A History of American Philosophy, Columbia Univ. Press, N.Y., 1946, p.485.

the force which knowingly makes itself affirmative: passion and will...The radical sign of will, the essential mark of that perpetual development by which a man is capable of speculation on all things and which elevates him to the dignity of an independent and autonomous being, is the possibility of doubt...the ignorant person doubts little, the stupid still less, the fool not at all....Certitude then is not and cannot be absolute...Man possesses certitude with respect to any object of his thought, when he comprehends it to the full extent of his intelligence, and feels himself driven by a powerful instinct, animated by an unalterable will in affirming it, and takes in such an affirmation a complete and unreserved delight...Certitude is thus a belief." 8

As a result, then, of the clash between James and Royce, two schools of thought arose in America, Neo-Realism and Critical Realism, with their distinctive interpretations of this realistic position, taking as their general realistic approach, in James' own words, "The attitude of looking away from first things, principles, 'categories,' supposed necessities; and of looking towards last things, fruits, consequences, facts." 9

The others involved in the movement variously propose the position in the following ways. Spaulding in "The New Rationalism," p.372, gives the position of Realism as summarized in three propositions: (1) The knowing and the known are numerically distinct (2) These two terms are related to each other (3) The relation between them is external.

Josiah Royce, in "The World and the Individual", p.62,

8. Renouvier, Charles, Essays of General Criticism, Second Essay, Part II, XIV.

9. James, William, Pragmatism, Lect. II, Longmans, Green and Co., 1907.

defines metaphysical realism as "the view which recognizes independent beings as real, lays explicit stress upon their independence as the essence of their reality." Perry, in "The New Realism," p.103, describes it thus: "The realism of the present day...is in sympathy with the whole modern trend of thought toward identifying reality with the elements, processes, and systems of experience. But it maintains that these elements, processes and systems are independent of being experienced." Durant Drake, in "Essays in Critical Realism", p.5, says: "All who believe that existence is far wider than experience - that objects exist in and for themselves, apart from our experiencing them - are properly to be called realists." And finally, John E. Boodin, in the "Journal of Philosophy", 1907, 533, characterizes it thus: "Realism means the existence of reals beyond the apperceptive unity of individual consciousness, and that these reals can make a difference to that consciousness so as to be known."

Section C. Neo-Realism

In 1910, according to William P. Montague,¹⁰ Ralph B. Perry, Walter B. Pitkin, Walter T. Marvin, Edward G. Spaulding, Edwin B. Holt, and Montague himself began to hold meetings to come to some agreement on those points of

10. Contemporary American Philosophy, G.P.Adams and W.P. Montague, eds., Macmillan, 1930, Vol. II, p.145; also his American Neo-Realism in Journal of Philosophy, 1921, p.121.

thought which they all held in common. They were all professors in colleges along the Atlantic seaboard and of about the same age, training and background. After many meetings, there resulted a publication in the "Journal of Philosophy" (p.393) of that year, "A Program and First Platform of Six Realists." This publication expressed in six different ways the basic thoughts upon which all were agreed. Later, in 1912, "The New Realism", as published by these six neo-realists and is the final statement of the school; it represents the last joint effort of practical agreement among them. "The Program and First Platform" is republished as an appendix to the book, but the positions explained evidence a real progress in the intervening years. A general statement of them is found in Section IV of the introduction, pages 31 to 35. They include eight theses and are as follows:

1. The Nature of things is not to be sought primarily in the nature of knowledge.

2. Realism is committed to the rejection of all mystical philosophies. A neo-realist recognizes no ultimate immediacies nor non-relation nor indefinable entities, except the simples in which analysis terminates. This includes rejection not only of a mystical monism but also of all philosophies which regard such obvious complexes as substance, will, activity, life, energy or power as fused or unitary.

3. New realism is pluralistic rather than monistic. The two grounds of monism (1) the internality of relations and

(2) the universality of cognition, are specifically rejected, and this rejection is the very starting point of realism.

4. Cognition takes place within being, as other realities and relations. In knowledge there must be a knower interacting with things, which knower must take its place in one manifold with the things it knows. There is no basic dichotomy between the two, but a special type of correlation of no greater prima facie dignity than the many other correlations which the world exhibits. Being known is a relation which happens to a pre-existing thing, whose characters are undisturbed by entrance into the knowledge relation.

5. The content of knowledge is numerically identical with the thing known; knowledge of things is immediate. That is, things, when consciousness is had of them, themselves become contents of consciousness, thus figuring both in the so-called external world and in consciousness.

6. The neo-realist is also a Platonic realist, according full ontological status to logical entities as well as physical entities, to subsistents as well as existents.

7. In short, for neo-realists knowledge occurs in an independent environment, in which the knower is homogeneous with the environment, belonging to one cosmos with it. The world is of an inarticulate structure which as revealed by analysis consists of complexes, like bodies, persons, and societies, as well as of simples. The simple constituents of the world comprise both sensible qualities and logical

constants.

8. Neo-realism is incomplete. It has no inevitable answer to such questions as mind and body, teleology, the good and freedom; there is no general realistic philosophy of life.

The Neo-Realists were then agreed on at least two very important epistemological points: first, an understanding of the nature of the world is not to be found primarily in the nature of knowledge (against the idealist point of departure), and second, that knowledge occurs within the realm of being, and also though the distinction between the knower and the thing known must be recognized, there is no real dichotomy between the two, for knowledge is immediate, not mediate through ideas or concepts: the object and the knower become one in the act of knowledge.¹¹

Now hardly had the new realism been formulated when it was realized that two problems in its very essence were of paramount importance; first, if the object and the subject are identical in the act of knowing, how is error possible? By denying the mediate nature of ideas and concepts any possibility of the knower to inadequately report the real was completely eliminated: the facts of error and illusion

11. This position is extremely close to the "radical empiricism" of James, from which it undoubtedly begins. Cf. Morris R. Cohen, Journal of Philosophy, 1913, 214, last paragraph: "The one modern movement with which neo-realism is closely allied (in motive, at least) is radical empiricism."

were impossible to explain; how is the illusion in which different persons perceive different things at the same point of space at the same time to be explained? how is the identity of percept and object to be maintained in the case of a star whose light carries on many thousands of years after the star has ceased to exist to be explained? second, the entire position seemed to reduce the **mind** wholly to matter and thus to resurrect an old materialism. By inveighing against the whole idealist scheme, it looked as though consciousness was like the baby who had been poured out with the bath: for by fleeing from the subjective, the new realism seemed to go to the other extreme of making mind equivalent to the purely physical.

These questions and similar problems led to the movement of Critical Realism. The objections to the new realism were pressed by such men in particular as Arthur O. Lovejoy of Johns Hopkins University and James Bissett Pratt of Williams College who were developing an entirely different interpretation of the realistic thesis, for it was basic to the entire realistic movement that objects exist independently of their being known. But to the Critical Realists, however, it was not so basic that knowledge be immediate, which set them quite apart from the neo-realists, for this made error and illusion apparently possible to explain.

Section D. The Rise of Critical Realism

In December 1916, following acquaintances made at the annual meeting of the American Philosophical Association, there began a second co-operative philosophical effort with the frontal purpose of refuting the epistemology of the new realism. Durant Drake, James Bissett Pratt, Arthur O. Lovejoy, Arthur Kenyon Rogers, George Santayana, Roy Wood Sellars and Charles Augustus Strong had found a commonness of outlook and views, and together they began to work out a co-operative product, which appeared four years later under the title of "Essays in Critical Realism." ¹²

As one author described the situation:

"These critical realists were more mature than the neo-realist group, the oldest of whom (Marvin) was only forty years old when 'The New Realism' appeared, and the youngest (Pitkin) only thirty-four. Of the critical realists when the book appeared, the youngest (Sellars) was forty, while the two oldest (Strong and Santayana) were fifty-eight and fifty-seven respectively and had retired from the active teaching field. The neo-realist had most of their reputations to make when they issued their book; Santayana, Strong and Rogers were

12. cf. James B. Pratt in Contemporary American Philosophy (II, p.216) gives the above information and says that final agreement was brought about by correspondence. From the preface to Essays in Critical Realism, this seems to refer primarily to Strong who had moved to Rome, and Santayana, who was in London. Strong (Contemporary Amer. Phil. II, p.315) volunteers the information that he and Santayana studied together at Harvard and Berlin, and were only to meet again in middle life. Drake, Lovejoy, and Pratt, all have degrees from Harvard, but seem to have studied there at different times. Sellars and Rogers hold graduate degrees from Michigan and Chicago respectively. It was these five who brought about the 1916 contact and solved most of the problems of the book.

already established among the leading philosophical writers of the country, and Sellars had issued an important book in the same field (his 'Critical Realism') the same year the cooperative effort began. Rogers had been active in the field of realism even earlier than Perry; his first realistic articles had appeared in the 'Philosophical Review' as early as 1898 and 1901, though they set in motion no perceptible currents in the general field of thought; and he, like Perry, had reacted to the Royce anti-realistic polemic, in 1903. Strong's realistic writing had begun in 1903 and 1904. Sellars, Pratt and Lovejoy began writing from 1907 to 1909. Drake began his criticism of naive realism in 1911. Santayana, last of all, after the publication of 'The New Realism.'"¹³

The origin of the term "Critical Realism" seems to be due to Sellars who appears to be the first to coin the term, for in 1916 in the preface to this "Critical Realism" (p.vii) he uses it in a way in which he thinks he is creating it: "Gradually a full-fledged theory of knowledge formulated itself in my mind. For want of a better name I have called it Critical Realism." The only other earlier use seems to be in an article by Professor Douglas C. MacIntosh of Yale University, (Journal of Philosophy, 1913, 701) in which he was trying to reconcile Lovejoy and Perry and used the term "critical realism as opposed to...the dogmatic realism of the typical neo-realists."

Santayana seemed to be the last one to become interested in this new movement, but he has been considered as having an important influence, for in his notion of essence, the movement seemed to acquire a characteristic of individuality.

13. Harlow, Victor E., A Bibliography and Genetic Study of American Realism, Harlow Publ. Co., 1931, pp.70-71.

For it was the peculiar position of the Critical Realists in general against the Neo-Realists to deny the immediacy between knowledge and its object; they affirmed a "tertium quid," a third element or factor between the real object and the knowing subject, which was called a datum, the logical character (or quality group) of the external object, which is the means by which knowledge occurs. Santayana called this logical entity an essence, for it was held to be distinct from the external object, but is referred to external existence and means an external reality.¹⁴ Strong calls "this precious conception" the unique contribution of Santayana,¹⁵ and the others in the book express their obligation to Strong in this observation for "sharpening and filling out" their epistemology.¹⁶

Against Neo-Realism then the thesis of Critical Realism appeared quite clear. It appears at the top of Page 24 and is enunciated by Durant Drake:

"The thesis of this volume is that in so far as perception gives us accurate knowledge, it does so by causing the actual characteristics of objects to appear to us. The objects themselves, i.e. those bits of existence, do not get within our consciousness. Their existence is their own affair, private, incommunicable."

Pratt at page 105 states it thus:

14. Bittle, C.N., Reality and the Mind, Bruce, Mil., 1936, pp.137-9.

15. Essays in Critical Realism, Macmillan, 1920, p.224, note.

16. See preface to the Essays, p.v.

"The critical realist does maintain that...the most reasonable construction of the facts of experience points to the three following conclusions: (1) that there are other minds or centres of experience besides his own and that there are also physical entities independent of the minds that know them, but which stand in some sort of causal relation to these minds - in short, the general realistic view (2) that we human beings are so coordinated with the rest of nature that when our psychophysical organisms are acting normally our percepts refer to and (in a pragmatic and functional sense) correspond with existent entities which are not part of our mental content; and (3) that we can make these various independent entities the objects of our thought, and by reasoning upon our experiences can come to conclusions about them which are true and which deserve the name of knowledge."

Sellars stated it much more briefly in his book, "Critical Realism", (p.vii):- "It is the triad...consisting of subject, idea-object, and physical existent that Critical Realism calls attention."

And so, just as Neo-Realism is primarily a polemic against Subjective Idealism, Critical Realism is primarily a polemic against Neo-Realism.¹⁷ It took its origin in Neo-Realism's apparent failure to deal with illusion and error, and its strongest parts are in the criticism of this fact, but its weakest point is in the doctrine that the physical object is never perceived itself directly.

However, beyond the basic position of the Critical Realists, there is divergence in their interpretation of the term 'essence'; they all agree, however, that the 'datum',

17. Sellars, R., Essays in Critical Realism, p.189: "Critical Realism...is a criticism of naive realism, and an attempt to free it from its pre-possession that knowledge is, or can be, an intuition of the physical thing itself."

or 'essence', or 'content', or 'thing-experience', or 'character' is the only thing intuited in perception; the physical object itself is never directly perceived. But from hereon out they assume their own unique views, as we shall presently see in the case of Professor Strong.

Part 2: The Development of Professor Strong's Thought

Section A. The Physical method

In his first published book, "Why the Mind has a Body",¹⁸ Professor Strong undertook to examine all the various theories attempting to account for the relation between mind and body, and came to the conclusion that "that which appears to us as physical is in itself psychical (by which I do not mean unextended), and that no other solution of the problem of mind and body compares for simplicity and satisfactoriness with this."¹⁹ He points out further that beyond this conclusion the doctrines proposed in the above-mentioned work are superseded by his later works in which he admits that "his notions of matter and the perception of matter, of consciousness and its relation to the mind, have undergone

18. Charles A. Strong, Why the Mind has a Body, Macmillan, 1903.

19. This conclusion is stated in the later work, The Origin of Consciousness, p.15, wherein he assesses the general value of what he has accomplished before and what he intends now to eliminate and retain.

radical transformation." ²⁰ Consequently, in pursuing the nature of Professor Strong's doctrines, we shall have to disregard what he has said in this first published work, except wherein it expressly deals with his fundamental view of the relation between mind and body. And since he regards this conclusion as the fundamental empirical basis for his whole theory, he very aptly entitles it "the physical method." ²¹ Stated in briefest terms, it is the view that "there is a necessary correspondence between the mind and the physical data which reveal it to sense-perception." ²² Mental facts therefore must always be revealed in terms of bodily facts and relations, and their theoretical interpretation must never transcend the latter. Thus, he declares and commits himself to the starkest form of sensualism and empiricism at the very outset. ²³

The argument which Professor Strong appeals to in Chapter III, of "Why the Mind has a Body", is formulated in the following manner: if there are mental functions which are

20. cf. frontispiece of A Theory of Knowledge, Strong, C.A., Macmillan, 1923, where the same statement is made.

21. Strong, C.A., The Origin of Consciousness, Macmillan, 1920, p.15.

22. Ibid.

23. This is also borne out by his avowed Nominalism in the exposition of his position "On Universals" in A Creed for Sceptics, Macmillan, 1936, p.53.

not affected by physical correlates, then they admittedly would have no physical correlate. But, in Professor Strong's view of the evidence, there are no such mental functions at all in fact. For example, in pleasure and pain: to be well-nourished is to be physically comfortable, to enjoy good spirits, to live with zest, while to be underfed or hungry is to be weak, irritable, and despondent; the physical effects of stimulants further illustrate this: coffee widens the 'span' of consciousness, heightens the power of concentration, and lends to the faculties just that edge which is necessary for their finest operation, while alcohol does just the opposite - it at first promotes the flow of the soul but then impedes it, narrowing the 'span' of consciousness, weakening the mental grasp, and inhibiting all complex thought; also, if these mental functions had no physical correlate, why should they be brought to a standstill by the administration of anaesthetics? Surely, on that view, a person anaesthetized should still continue to judge, to feel pleasure and pain, and to attend. Thus, the final conclusion is reached: mental functions cannot take place in the absence of physical influences, or correlates, and an intimate paralellism prevails between them, for at bottom they are equivalents. The law then includes two propositions: (1) consciousness as a whole never occurs except in connection with a brain-process (2) particular mental states never occur except in connection with

particular brain-events. Such is the law of psychophysical correlation.

During the course of his exposition of "givenness" in Chapter I, of "The Origin of Consciousness", he goes into some of the further details of this method. He explains here that insofar as our experience ranges, psychic states take place only in connection with an ill-defined intra-bodily process which may be roughly called the "brain-process", and that these psychic states vary in quality, internal arrangement, etc., with this process and not with anything more inclusive.²⁴

And so, in one stroke, the entire field of our investigation is confined to the interpretation of facts and laws in detailed empirical terms. Indeed, if we are criticized in stating the situation in a somewhat derogatory tone by emphasizing the empirical, we are reminded at this point that in the author's view there is really no such reality as the supra-sensible, or spiritual - thus rendering the basis for our initial criticism mythical. We must engage our analysis upon facts, and these are to be sensible facts, and what falls beyond this realm is to be characterized as fancy.

Section B. Monistic Panpsychism and the Origin of Consciousness.

In his last published book, "A Creed for Sceptics", Professor Strong openly declares the task to which his whole

24. The Origin of Consciousness, p.52. (underlining my own)

life has been devoted within the guide-posts of the physical method; it is to explain the origin of consciousness in a way that Darwin explained the origin of the species.²⁵ In this way, he avowedly hoped to complete the theory of evolution and overcome some of its fundamental difficulties - notable among which are: the explanation for the legitimate passage from the inorganic to the organic, the gradual rise in perfection within the parts of the inorganic and the organic, and pointedly - the passage from the non-cognitive forms of living being to the cognitive forms. For the world must in some way be psychic, since a psychic ego can come by evolution only out of a psychic world.²⁶ This, Professor Strong regards as the primary obstacle to be surmounted in his work: that reality can so be conceived as to be sufficient to produce consciousness and feeling. He observes that there is great difficulty in convincing the popular mentality that reality or being can so be conceived, but still commits himself to the task of eventually being successful at explaining how the master-key is the definition of the nature of being interpreted in this light.²⁷

Furthermore, according to Professor Strong, the development of this monistic and panpsychical position raises certain very specific and distinct problems regarding the

25. A Creed for Sceptics, Macmillan, 1936, Preface, p.v.

26. cf. The Origin of Consciousness, pp.321-2.

27. A Creed for Sceptics, Preface, p.v.

nature of the mind itself. First of all, there is the seeming disparity in complexity between the mind and the brain-process, for thought is apparently one and unified while the actual brain events are many and serial; if there be the basic identity originally asserted in virtue of the demands of the physical method, how can this be so? Secondly, there is the nature of the being, reality or stuff out of which the mind is made - that is, assuming the identity to have been thus far vindicated, what is the nature of such mind-stuff? Thirdly, if we consider the relation between mind-stuff and mind as to time, we are faced with the problem of the origin of consciousness.²⁸ However, it is to be noted with regard to this latter difficulty that it is not the details of the evolutionary forces that Professor Strong is addressing himself to, for these he regards the future task of the experimental sciences to discover, but rather the basic question is "whether consciousness can be so conceived that its evolutionary origin shall be possible."²⁹ Thus, the question concerning the origin of the mind implies a definite stand on the mind-body relationship. But this in turn is further based on a determinate explanation of a theory of perception. As Professor Strong observes: "scientific epistemology must precede logical analysis if the latter is to lead to true solutions..

28. The Origin of Consciousness, p.1; also, pp.14-15.

29. op. cit., pp.28-29.

a sound theory of perception is the necessary propaedeutic and starting point of philosophy." ³⁰ Therefore, the ultimate principles, which are to be the final points of explanation, must be found in a theory of knowledge: in this way, the true explanation for the mind-body problem will be ultimately reached and worked out.

Section C. The Modern Theory of Will

The dynamic principle which Professor Strong appeals to as being the first successful step forward in carrying this problem to its final solution is the modern theory of will. ³¹ According to this principle, we are to go back to instinct as an ultimate source of explanation, especially in the understanding of cognitive phenomena. We take, for example, certain sights, sounds, odors, etc., and see that they urge animals to spontaneous acts, while other acts are indifferent: the chick pecks at a grain of corn, or the snake strikes at its prey. These movements automatically follow from the perception arousing the instinctive stimulus. Now these expressions of action on the part of an organism or self are its full consent and are therefore genuine acts of will - although in a very low degree. The expanse of the imagination enlarges the field of anticipation for the object which will stimulate and evoke the operation of instinct, and there is accordingly an actual inclination toward

30. A Creed for Sceptics, Preface, p. vi.

31. This doctrine has already been voiced in the works of James and Royce, as above noted, pp. 5-6.

the execution of the motion before the opportunity for it actually arises. And in this interplay of ideas inhibitions also enter, so that the reaction to an object of instinct may be abortive because it appeals to or may violate other instincts. In this state of affairs, the need for deliberation and adjustment arises, and this actually takes place under the impress of opposing ideas when one predominates over the instinctive and inhibitive aspects of the others. When this occurs, we have the consent of the personality, which does not essentially differ from the way in which any animal instinctively acts. "The idea of the act thus reaches the degree of intensity and non-inhibition at which it can discharge into the act",³² and the movement of life results.

Consequently, we may explain the operations of an animal organism according to the association of ideas, the pleasure-pain principle, and the resulting action. In fact, the very reason why an idea can discharge into an act at all is because "it is immediately connected with the inner substance of the volitional brain-event; and the subsequent sense we have of its action, the sense we have of having done something, is a matter of the sensations called forth by nerve-currents apprising us that the muscles have contracted." ³² Thus, the idea of the act and its execution are completely immersed in a purely physical matrix - all of which exactly

32. The Origin of Consciousness, pp.19-20.

illustrate the application of the demands of the physical method.

The will, then, is the principle responsible for the idea preponderating over other ideas in their inhibiting or non-inhibiting aspects, and the actual motion consequent to consent; in brief, the will has been reduced to sensations, mental images, and attention.³³

Professor Strong goes on further to explain that the Jamesian theory of emotion is another illuminating example of such functionalism. According to this theory,

"the fundamental fact about an emotion is that it is a substitute for a voluntary act. When we cannot have motion we betake ourselves to emotion, and let off in it the motor energy that instinct annexes to our ideas. Thus the wolf that cannot bite, as Darwin says, snarls and uncovers his teeth; the helpless child wails; the bereaved woman weeps, or else the energy of habits and wishes that she cannot shake off accumulates dangerously within her, whence the desirability of her weeping; the energy engendered by an apparently serious statement and ready to be utilized for action or thought discharges itself, when we suddenly discover the statement to be ridiculous, in a burst of laughter, etc. In a word, emotion is the safety-valve of the psychic organism."³⁴

Emotion, then, is an abortive act and is not other than a true voluntary act. Consequently, just as we are no longer to look upon will as introspectable psychic power, nor emotion, to be sure not as a power, nor even as an introspective datum essentially different from sensation, thought, or volition, so we must look forward to all as not being other

33. op. cit., p. 21.

34. Ibid.

than outgrowths of will.

The general problem for Professor Strong under this aspect then is this: "Is it not thinkable that this process could be continued, and extended even to such intractable and seemingly miraculous phenomena as thought and knowing?"³⁵ This, once accomplished, will for him make "the mind in all its manifestations a fit subject for evolution."³⁶ In following out the development of Professor Strong's epistemology from his panpsychism we shall see how he finds it necessary to adopt specifically the position of Critical Realism, for in general it is evident that if there is to be affirmed a basic identity between mind and body, there must be some sort of a distinction between things as they really are and their appearances, or the object and the datum in knowledge.³⁷

35. op. cit., p.22

36. ibid.

37. op. cit. p. 5.

CHAPTER II.

THE EPISTEMOLOGY OF CRITICAL REALISM ACCORDING TO
CHARLES AUGUSTUS STRONGSection A. Fundamental Notions

In his last published work, entitled "A Creed for Sceptics"¹ Professor Strong gives a brief account and summation of the general aim and result of his epistemological position - Critical Realism - and the various stages by which he thinks it ought to be formulated. He says that his theory in general arrives at the common-sense conclusion that things are real and that perception is a knowing of them. He establishes this realistic conclusion in four stages of analysis:

1. the duality of the sense-datum and the real thing,
2. the recognition of internal perception as analogous to external perception, thus providing a real self for sense-data to be given to
3. the atomic constitution of this self, and the consequent production of sense-data by fusion and projection of the atoms

1. A Creed for Sceptics, Macmillan, 1936, p.vi.

4. the unsubstantiality and the inefficacy of the data - but their essential office is to present substantial and efficacious things.²

Before following out in detail the reasons which Professor Strong advances to establish his contentions which support his general doctrine of knowledge, however, we should as far as possible explain the fundamental meanings which he ascribes to the elementary terms which he employs in the development of his position. For "a small mistake in the beginning leads to a large error in the end",³ provided one is consistently logical and a good "beginning is more than half of the whole."⁴ In an earlier work, "The Origin of Consciousness,"⁵ Professor Strong supplies further explanations of some of the more elementary terms of his systematic vocabulary.

Here, he explains that by "object" we are to understand

2. The use of the word "realism" in the modern sense ought not to be confused with its ancient and mediaeval use on the problem of universals. According to the latter view universals are the only truly real realities and particulars are only "other versions" of these universals; the individual on this view is but an intersection of universal ideas, or supreme archtypes (Plato; William of Champeaux, *Erigena*, and the neo-platonists). The modern use of the word "realism" in general refers to a sensible universe existing independently of the knower (cf. previous definitions of "realism" Chapter I, pp. 7-8).
3. In Aristotle, *De Coelo et De Mundo*, Bk. I, c.5, 271 b10; quoted by St. Thomas in *De Ente et Essentia*, Proemium.
4. In Aristotle, *Ethica*, Bk. I, c.7, 1098b6.
5. *The Origin of Consciousness*, Macmillan, 1918, pp.35-36.

"the real thing, existing in one continuous space and one continuous time;" in other words, any physical object sensibly existing in its particularity and contingency.

"An 'essence' is anything that can be given, whether to sense-perception or to thought, considered not as given but simply in itself." Strong acknowledges his indebtedness to Mr. George Santayana for this imposition of the term, but regards the application of Santayana's particular signification of the term to his own explanation of sense-perception as his own.⁶ As will be remembered, it was the peculiar position of the Critical Realists in general against the Neo-Realists to deny the immediacy between knowledge and its object; they held to a "tertium quid", a third element or factor between the real object and the knowing subject, which was called a "datum", the logical character (or quality group) of the external object, which is the means by which knowledge occurs.⁷ Santayana affirmed this logical entity to be an essence, for it was held to be distinct from the external object, but referred to external existence, and means an external reality. For Santayana, "essence" carries the signification of an animal faith, i.e. an instinctive and practically inevitable belief in the existence of the physical world, while Strong in applying this view to sense-

6. See footnote on p.36 of The Origin of Consciousness.

7. cf. Essays on Critical Realism, p.224, note; also referred to in Contemporary American Philosophy, II, p.315.

perception narrows down its manifestation at this level of being to an attentive or motor-response of the sentient organism resulting from the obtrusion of cognitive stimuli.

"A 'datum' is an essence considered as given."

"Consciousness is the function by which things are given, - i.e. it is the same as 'awareness', or 'givenness.'"

"The 'ego', or 'self', is the being (located in or the substance of the organism) to which things are given."

By "psychic state", finally, is meant "the concrete state of the self which makes it possible for things to be given, or a similar state."

All these terms will become better understood as they are used and applied in the course of our exposition of his general doctrine on knowledge.

Section B. The Duality of Sense Datum and Real Thing

From these axioms and definitions, expressing the distinct and crucial moments and stages of his position, it will be observed that it is the bifurcation between knowledge and its object which is provocative of the entire system. What is given in sense perception is not the object as an existence, but only the object as an essence and over and above this essence no givenness itself is given. In the act of sense cognition, according to Strong, it is not the receptivity of the sensing subject which is primarily evident, but rather the object itself, the attainment of

things, which is first and to the fore. When one sees an object, one does not see himself seeing it. What is given here is exclusively the essence.⁸

And what again is the essence? It is anything which can be thought of or known with regard to "what it is" abstracting wholly from "whether it is" - the fact of its existence or non-existence.⁹ It has the same qualities and detail as the object, or in other words, it is not distinct from it, but only independent from it.¹⁰ "And what must be added, in order to transform givenness into sense-perception, consciousness into knowledge, is the same as in the case of judgment: it is affirmation or belief."¹¹ This is to say, that it is by the way we act, that the given-essence reveals an existing object. "Cognition, in fine, is extremely simple: it is nothing but the givenness of an essence and

8. cf. The Origin of Consciousness, pp. 36-37.

9. op. cit., pp. 38-39.

10. op.cit., pp. 42-43: "Two things are said to be 'distinct' when one has a different essence from the other; they are said to be 'independent' when one can exist without the other...perceptions can perfectly well exist without the things perceived - since the givenness depends entirely on the psychic state, and we can have an essence given to us and even make affirmations about it without a corresponding object existing or the affirmations being true. Things and our perceptions of them, then, are independent. But if by 'percepts' we mean the essence given, this essence and the essence embodied in the object are not distinct. Their indistinction is the very thing that makes cognition, i.e. direct knowledge of the object, possible at all."

11. op.cit. p. 39.

the acting in consequence as if an object existed." ¹²

For example:

"the horse who shies at what he takes to be a fearsome object, the chick who pecks at a grain of corn, each has an essence given to him; each, moreover, makes an affirmation about his essence, though the chick is right in his affirmation and the horse in his is wrong. Thus the givenness of essences is original and the affirmation of corresponding objects is instinctive." ¹³

With these assertions laid down, he argues very pointedly against the Neo-Realists on the score that because we perceive a thing, it follows that it must exist and that we infallibly know it. The fact of hallucinations and dreams indicates to Strong the need for admitting a substitute epistemological principle between knowledge and its object, i.e. the sense datum. This third principle, on his view, becomes the butt for critical debate as to whether it means and "points" to the existence or non-existence of the object and whether it has exactly the qualities which perception reveals in it. Knowledge, then, in its primary and secondary characterizations is "vehicular and precarious." ¹⁴ As he metaphorically puts it: "knowledge, on our theory, is existentially the barest cobweb: but it is a practicable cobweb, over which we may get safely across to reality." ¹⁵

12. op. cit. p.40.

13. ibid.

14. op. cit. p.43.

15. op. cit. p. 235.

But "how does an object that is given, and also exists, differ from an object that is merely given?"¹⁶ The answer is to be found in the consequences observed to take place or really happen (i.e. adjustments). Where the object really exists there is a positive enduring response; where the object does not really exist, no such characteristic effect is seen. Thus, while the indication of the object's existence or non-existence is registered subjectively (i.e. by its effect on us), it is within the highest dictates of Strong's "vehicular theory of knowledge": to realize that in reality the source for this resultant change or not is in fact in the object itself and not in the perceiving subject. Thus, where Neo-Realism argues against a third term between the object and the ego to explain knowledge, the Critical Realism of Strong agrees on the grounds of his explanation for the grasp of essence, but not so for the affirmation of the existence or non-existence of this essence - the crucial point at which knowledge really takes place; it is here, in Strong's view, that the reason for the intermediacy of a third principle - the sense datum - arises.¹⁷

Since it is on the basis and evidence of actual cases and instances of hallucination that the disparity between sense datum and object reveals itself, it is well to recount and analyze the experiences that Strong points to in order

16. op. cit. pp.48-49.

17. ibid.

to establish his position. His main contention is that if we pay serious attention and analysis to the perceptual facts, any man will find that there have been many times when his perceptual knowledge has been flatly wrong - something appeared which was not real; he, therefore, realizes that there is an essence (appearance) and there is a genuine capacity in the knowing subject for such things, i.e. givenness or awareness. Let us now consider what he regards as representative and typical cases, the general point being: whether perception always agrees with its object in time, number, and quality?¹⁸ The first case has to do with time. An object is necessarily perceived at the moment the perception takes place - specifically when the physical influences producing it arrive at the brain. Now, in cases of distantly perceived objects there is always a time-interval for the light-rays, or sound waves, to reach the brain; e.g. a train whistle is heard several seconds after it has actually occurred and in a comparable period of time we see the escape of steam; also, the light of a star may be long since visible even after the star itself has gone out of existence. Thus, the time-interval of the perception of the object itself prior to its arrival in the brain makes the perception of the object always hallucinatory. We perceive the time of the brain event and not the real time of the object. The

18. The following cases are given in The Origin of Consciousness, pp. 60-62.

second case has to do with number or quantity. If the eye-ball is pressed, the object seen is doubled. The real object is still one, but the essence given to consciousness has been reduplicated. Therefore, the number of objects perceived depends on the subjectivity of the impressions on the retina and the resulting elements present in the brain-event. The third case has to do with quality. An object seen through a yellow glass appears yellow. Even though it might be objected that what is seen is the object and the yellow of glass together, which is objectively yellow - as it is in contact with the eye - still, if a dose of santonin were administered, all visible objects appear yellow. Now, it is argued that the real cause of the misperception is a real modification of the brain-event. Hence, the quality or qualities attained in perception are subjective, not objective. The considered conclusion then which Strong reaches on the basis of these typical cases is that it is impossible to equate the object of sense-perception simply with the datum.¹⁹

But Professor Strong continues to observe that there are other cases in which we are only partly wrong, i.e. we are wrong in some respects and not in others. In determining and distinguishing these elements we adhere to the canon of coherence, which consists in discriminating as to whether our grasp of the essences of objects accords with the scheme

19. op cit. p.63.

of reality as we have finally concluded it to be. But withal the sense datum can never be simply equated with the object of sense-perception. The following cases, according to him, seem to illustrate this:²⁰ (1) a straight stick when partially immersed in water appears bent, but we do not really think it so (2) railway tracks appear to converge though they are really parallel; again, we know that it is otherwise (3) doubled vision of the object appears when the eyeball is thrust in; again we know that one, the other, or both images are hallucinatory (4) the color-blind and the people with normal vision see the same objects differently; here we know that the ones who are color-blind in seeing red and green uniformly as gray, for instance, are wrong, and that the others are right (5) Physics tells us that the sense qualities of objects are not real in the way in which we perceive them, but are only a texture and arrangement of their microscopic or ultra-microscopic parts; consequently, they are hallucinatory (6) the object appears to vary in its size in relation to the distance of its perception; but the object itself is really the same; size then is hallucinatory.

Now, according to Professor Strong's view of this evidence, the only conclusion we can reasonably reach is that

20. op. cit. pp.62-65, where the account of these cases is given; the same doctrine on the duality of object and datum is proposed in the beginning of his Theory of Knowledge, pp. 1-5.

there must be a third principle between the knower and the object, which he calls the datum. The essence and the object do not naturally pass smoothly into one another without the critical and deciding influence of this intervening principle. In cases of positive error the object and the essence are distinct and independent; whereas, in cases of partial error there is only a tenuous connection. What assures us of this relationship? It is the datum: in this entity, appearances are put aside (critically disregarded in the realistic thrust) and only the adapting of our conduct to them is taken into account - the action put forth by our organism. This total organismic response necessarily clears the apparent from the real, the merely artificial from the truly concrete, and what appearances might stubbornly still remain are covered over with truth in the general utility of the action itself. Thus, when it comes to action (or reaction) we inevitably know what is real and any artificiality of appearance which might be left over from the natural looseness of the relation between the essence and the object becomes pressed into service without making the subjectivity of its appearance relevant; so, we know as we grasp the oar partially immersed in the water what part is real, as we build railway cars we make the wheels parallel, we look for one object, we restrict color-blind people in driving autos, etc. Action and reaction determine or discriminate the real from the apparent, and what remains of

the apparent is absorbed into this fundamental truth. This really amounts to saying that truth is revealed in the crucible of power! ²¹

Section C. The Analogy of Internal Perception
to External Perception

According to Professor Strong, we are to understand by internal perception that perception by which we are aware of our feelings; for example, hunger, thirst, pain, fatigue, or the sense of well-being when all unpleasant states are absent. Thus, feelings are states of self, and internal perception is knowledge of the self. And along with these states may be grouped the sensations of the external senses as well, and the muscular sensations making us aware of our

21. cf. A Creed for Sceptics, p.17: "Philosophy - so at least many of us believe - is at present retracing its steps. The post-Kantian judgment which denied the existence of things in themselves is in the process of being reversed. When critical realists maintain that the datum in perception is distinct from the object, they are re-establishing Kant's distinction between phenomena and things in themselves." Thus, the reality of the object is guaranteed in the datum of appearance, not in the appearance (for the question as to its accuracy or inaccuracy is now irrelevant), but in the instinctive affirmation of the organismic response. Thus, with the Kantian distinction left intact for all that it is, or may be, worth, "things in themselves, then, far from being unknowable, are the very things we know." (loc. cit., p.19) The traditional cognitive relation is therefore allowedly bankrupt, or at least left to grasp whatever it can grasp according to the old notion of truth-correspondence of the mind with reality:- a surrender to the Kantian view, while the modern theory of will derived from post-Kantian voluntarism re-establishes the extramental things, but on radically different grounds.

movements: all these may be possible objects of introspection or internal perception too.

Now, in Strong's analysis, what is cognized in internal perception is really the state in which the organism finds itself. For example, upon being burned, what is cognized is the destructive process taking place to the extent that the finger is taken away from the hot object, rather than the relation itself between the hot object and the sensation; in fatigue, it is the state impelling to rest that is felt, rather than the events themselves responsible for the fatigue. Therefore, in internal perception there is again, on his view, a recognizable basis for a duality between the object and the datum. And he further concludes that visual, auditory, or tactile sensations can exist in us unperceived when they are our means of perceiving objects - thus reaffirming his central observation that the object and the essence are indistinct, but independent.²² But it must be remembered that knowledge does not really take place in his theory even at this stage of internal perception until there is an attentive response by the organism. The existence of the object of internal perception is "the external counterpart of belief... human life rests on instinct, and is deranged when the normal operation of instinct is arrested."²³

22. A Creed for Sceptics, pp. 2-3; also A Theory of Knowledge, pp. 5-6.

23. A Theory of Knowledge, pp. 60-61.

Prior to its becoming a datum, the essence of the object exists in us unperceived and our knowledge as such (the datum) of the feeling is subsequent to the essence of the feeling itself. And this itself guarantees it, or makes it worthy of trust. For example, "after hearing a bell I may become aware that I heard it by means of a vibration of my own being; after seeing a light, that it was made present to me by an inner glow. These states of the **self** must have been feelings at the moment when I used them to see and hear." ²⁴

And so, the trust which we place in the objects given in time and space in external perception surely justify the affirmation that the objects of internal perception point to feelings.²⁵ These culminating data then reveal an object and resemble it in essence, and their full reality is knowingly achieved in the resultant execution consequent to the vehicular nature of cognition. ²⁶

Accordingly, to react to an emotion is to destroy it - it breaks up at once into the localized sensations which are cognitions of intra-bodily processes. When a soldier goes into battle and notes the paling of his skin, the rapidity of his heart beat, etc., he thereby dispels his fear. Therefore, for an emotion to remain such, it must not come forward as an object, but rather remain unanalyzed in the background

24. A Creed for Sceptics, p. 4.

25. op. cit., p. 3.

26. op. cit., p. 4.

of consciousness and be simply felt - or rather be a feeling. In the case of a bitter disappointment, the attending to the sensation in the throat displaces the emotion of disappointment when we become aware of it as an object (the datum). Thus, the young child who continuously cries is the genuinely disappointed person. It is, therefore, an error to designate emotion, pleasure and pain, and will, as essentially cognitive states because of their psychological origin, i.e. that there must be a knowledge of some particular type to educe them: say, a distasteful piece of information to cause disappointment; these states are rather wholly non-cognitive (anoetic) and are psychic states later to be turned into objects as such (data), or real feelings.²⁷

Feelings and nervous processes are, therefore, the "anoetic" portions of cognition in both internal and external perceptions.²⁸ And "the fundamental fact about an emotion is that it is a substitute (appearance) for a voluntary act" (the culmination of a datum).²⁹

But, as Professor Strong goes on to explain - a feeling in its "anoetic" phase does not come all at once, but rather in an infinite succession of instants: say, the series of

27. The Origin of Consciousness, p. 35.

28. cf. A Theory of Knowledge, p.30: "For instance, I may accommodate for yonder electric light, but while doing so, tend to react (as an effect of the attentive heightening) towards the mere state, considered as internal to myself: and I shall then be introspecting the light sensation."

29. The Origin of Consciousness, p. 21.

vibrations in the ringing of a bell. It is only by the knowledge of internal perception that "the apparent block", which is feeling presents itself as such. And this comes about by a summation of the infinity of instants (reverberations of the vibrations, so to speak, in carrying along with the original example of the bell) primitive to the feeling itself in its physiological processes in the brain. In turn, the attention, reaction, or motor attitude express themselves in the knowledge of the feeling as an essence of the object, not as an outward fact, but on the contrary, it points to it as a state of the self, which is internal to the body, and its true location may be in the brain or in a whole formed of the brain and the sense organ (where the essence is an object of the external senses made an object and treated as an item of internal experience: for example, the psychic state itself receptive of the sound of the bell.)³⁰ In so saying, it follows further then that there can be no reaction (no

30. cf. A Theory of Knowledge, pp. ix,x: "It is easy, in analyzing perception, to change inadvertently the direction of one's attention, and fix it on something, namely the visual or auditory sensation, which is not the datum of perception at all; all the while imagining that one is still perceiving. This is done, I think, when it is said that what we see is evidently "a patch of color"; it is certainly done when it is said that in looking obliquely at a coin, what we see it "oval". The element of objectivity, of externality, has been omitted, which is essential in perception. We do not see mere colour, or an oval - we see a coloured thing, a round coin one side of which is farther away than the other." There is "an inadvertent substitution of the 'sense-datum' for the true datum of perception."

knowledge) in the following: (1) an instantaneous feeling (2) an unremembered (unintrospected) succession of mere instants, either because no summation can at all take place, or has taken place as a matter of fact with regard to them.³¹ "Summation" here is a term for what we shall later encounter as "simplicity" or "fusion" in reference to the sense-datum itself. Thus, "the motor attitude in introspection"³² is, therefore, of the same general kind as that in sense-perception, and differs from it only in being to an object inside the body and not to one outside it."³³

The object is not the intuitive datum in either internal or external perception. There may be then a disparity between the object and this substitute. There can be then no surety that the objects of external perception are purely material, or that those of internal perception are purely mental. But there is one case in which both classes of internal and external perception apparently unite: "feelings in the self are referred to the same place as processes in

31. The Origin of Consciousness, pp. 199-201.

32. Professor Strong in his later work, A Creed for Sceptics, (p.vi), abandons the term "introspection" for "internal perception" which he prefers as having realistic flavor. He quotes the authority of a Professor Stout for this usage, and further acknowledges "anoetic sentience" to him also.

33. The Origin of Consciousness, pp. 201-202; cf. A Theory of Knowledge, p. 3.

the nervous system." ³⁴ These two modes of cognition seem to reveal the same object - the self.

1. Just as in external perception, the data point to objects in time and space, so
2. In internal perception, these states reveal the self as feeling.³⁵ As he goes on to explain,

"External perception shows the self to be composed of spatially separate parts. These are momentarily inactive parts in which memories are stored or on which instinctive tendencies depend. In the wide-awake self there is a focal active part, and external perception shows it to be composed of a multitude of minuter parts in a complex arrangement. These parts interact, and therefore are forces quite as much as feelings. The arrangement makes of them a whole, determining their manner of inter-action and of action upon other things; but what acts are the parts - the minutest ones. These alone, in their arrangement, can be said to exist in instants, and to change their place in the passage from one instant to the next. They alone, with the force in them determining their changes of place, are the ultimately real; whose nature, if internal perception does not deceive us, is feeling. Combining the information derived from external perception with that derived from internal, the result we reach is that the self, at least in its wide-awake part, consists of minimal feelings which are forces." ³⁶

It follows further that it is not possible for the ego or real self to be known as it is functioning, for the symbolical knowledge of the essence precipitating the

34. A Creed for Sceptics, p. 3.

35. ibid.

36. op. cit. pp.4-5: He calls these "minimal feelings sentients, and the group or general flow of them "state of sentience."

vehicular motor response of the total organism absolutely prevents consciousness from in any way at all being occupied with itself.³⁷ "Cognitive states...evidently cannot exist by being cognized, since their whole business is to cognize other things." ³⁸ The "esse" of a feeling, at the instant and moment it is the vehicle of cognition, is not "sentiri", but "sentire", since "cognoscere" is an external relation. "To cognize" is a datum of external perception, while "being cognized" is a separate datum of internal perception. It is thus only by a subsequent introspection that the real self can be cognized.

Evidently, Professor Strong reaches this conclusion as a further implication of the analogy which he draws between internal perception and external perception. For, as he points out, by way of example from external sense experience, a man cannot see himself at the moment when he sees. It is true that he himself is the one seeing, but it is not by this same numerical act that he knows it as such.³⁹ The question therefore arises: how can he know that the self acts as ego at all?

The answer has really been already given in our preceding analysis: this introspective act, or internal perception, by which the ego is known must be a separate act from

37. The Origin of Consciousness, p. 182.

38. op. cit. p. 195.

39. op. cit. p. 182

the ego as functioning in the total organism in external perception. It is then by a later act close on the heels of an external sense perception that it comes to be realized that it was the total organismic self that reacted to the essence of the object in the external sense perception of the preceding moment. But now the motor response which points to the knowledge of this reality indicates it as an inward fact of experience, i.e. a personal feeling. The ego, self, or feeling then is discovered, and by rigorous deduction, "the ego then is knowable the moment after."⁴⁰ This introspective disclosure of the ego thus comes to be a side-by-side result of the self's prior necessarily uncognized existence of function in external sense perception. It is not an inference, or supposed hypothesis, but rather enjoys a similar status in external sense-perception to objects existing unperceived in the nervous processes (the anoetic phase) prior to the motor-response or reaction to them.⁴¹ But now, having established the existence of the

40. op. cit. p. 183.

41. A Theory of Knowledge, p.23: "we explained the self as a pattern of processes in the nervous system... and the question might be asked, why does this pattern stand out from other processes, as an isolated whole? The answer is, because it controls action - because it is the determinant of the motor tendency. This it is, as we have seen, that causes it to have a datum presented to it; this it is, again (owing to the interlacement or systematic unity of the nerve-process), that produces registration and entails subsequent memory; it is this, finally, which gives individuality to the self and makes it a subject contemplating an object."

self, it now remains to ask pointedly: what is the intimate nature or inner constitution of the ego? From what has been said the answer may be quickly given: it is of an atomic constitution in its anoetic phase, but in reality, the self is a unity of function, i.e. a total dynamism of incidents of the organismic process.⁴²

After having considered the stages in which we arrive at the extrication of the ego, the very important question of its unity arises. Is the mind, ego, or self, one or many? If one, what is really meant by "unity of function?"

The empirical facts seem to indicate that a man is truly in some sense the same being undergoing the different events pertaining to his past, present, and future. And, at first sight, this seems to lead to the conclusion that the self is an indivisible thing with an existential unity. But in Professor Strong's view of the matter, this is not really so.⁴³

He finds that the self is the same self in the face of the changing experiences of the past, present, and future, to be sure, but it is not the being of an unchanging sameness. The personality of the individual remains the same throughout infancy, adolescence, and the maturity of manhood, etc., but there are not two separate levels of existences - the one which changes, and the other which is unchangeable.

42. The Origin of Consciousness, pp. 239-240.

43. op. cit. pp.239-240.

What really perdures is the preservation of a certain stock of memories; it is this which individuates one person from another, and is the core of personal identity. However, under stronger analysis even these memories are seen to change: they too evanesce and a

"man's stock at sixty is extremely different from his stock at twenty. We must regretfully acknowledge that there is nothing absolutely unchanging about us. A person is thus like a plant, which springs as a tender shoot from the soil, grows apace and puts forth leaves, then is beautiful with flowers which fade and are succeeded by other flowers, and finally withers and dies. The plant is all the time identical, but its identity is a relative one, more historical than existential, and very far from absolute. Why should we disavow our obvious resemblance to the flowers of the field?...The personal identity here maintained is the identity we actually find, and is enough for all human purposes." 44

Section D. The Atomic Constitution of the Self

Through an analysis of the phenomena connected with sensations, Professor Strong by a rigorous deduction comes to characterize the ego or self as a concatenation of psychic states. The states, however, are not one thing while the self is another, but are to one another much like the relation between a physical thing and its states, as boiling water. The boiling of the water expresses a peculiar condition of the water and is in fact at that moment its full concrete expression and description, for water at any one time and place must exist in some state - boiling, fluid, or

44. op. cit. p. 253.

frozen.⁴⁵

In similar fashion therefore the ego consists of sensations, feelings, and desires, or more accurately it is itself the states in general which engender these different aspects. The ego then is a changing thing - in a series of states, and "a 'psychic state', then, is only another expression for 'the psyche in a certain state.' " ⁴⁶

To support this general conclusion, Professor Strong appeals to the many instances of these psychic states empirically present in sensations.⁴⁷

First of all, there are the general cases from external perception: (1) an ache may be referred to a tooth, and as so referred bring before us an essence which dimly exhibits the irritative process; but no one will question that in itself it is a state of our sensibility (2) the touch of ice is not less a state of our sensibility because it permits us to cognize the low temperature of the object (3) we could not feel the hardness of an object unless we had the feelings; nor feel the position of our limbs without muscular sensations (4) we could not taste the sweetness of sugar without the sensations of taste, nor enjoy the fragrance of the rose without the sensations of smell. Therefore, the sensations themselves in these cases are not our

46. op. cit. p.105.

47. op. cit. p.246

primary object, but rather the datum itself pointing to the object; the sensation or capacity for the datum is its vehicle and exists precisely as the means for the givenness of the essence or is a genuine psychic state.

Next, we have the special case of vision. In the act of vision the psychic capacity for the datum does not seem so evident. The object is so clear, so purely objective, that there seems to be no indication of the subjectivity of the psychic state at all. However, when more accurately examined, the visual after-image betrays this element. If we look at a bright object, there is a blotch which remains in our vision which goes from bright to dark in degrees, and this hovers before all other seen objects. It is a certain psychic state: it is not the essence of a physical object for several reasons: (a) since this after-image imposes itself on all other seen objects with precisely the same size, whereas the essences of physical objects vary in size according to the distance of their perception, and (b) the movement of the after-image depends on us, whereas the essences of physical objects have their own movement and the movement of the after-image takes place between these sensibles - it is a change in the arrangement of the sensations by which we perceive objects, and (c) its fading from the less brilliant to the dark happens independently of our wills. But these changes are not the changes of a physical object (as the fading of a live coal) for there is no physical object: it

is the essence of a psychic state. Again, we reaffirm the conclusion: there must exist psychic states by means of which we perceive true objects.

Finally, we have general cases from internal perception; there are also psychic states called "mental images": (1) when I remember striking a match a moment ago, there arises before my mind an inner vision, which by a little attention I can make distinct, and which as it originally presents itself to me is referred to the past....As such it is a thing to which I can attend; capable of a greater or less degree of vividness; visual in character, like the former state of which it is a copy - in short, analogous in every way to a visual sensation; thus, in the sort of cognition called memory, it is just as possible to turn the attention away from the essence and contemplate psychic state as it is in perception (2) inner speech is a series of auditory images; the special inner capacities of artists and literary men illustrate the sensitiveness of the psychic states (3) general ideas or universal concepts are the larger function of the psychic state to arrive at attitudes which enable us to grasp larger essences from particular essences, as the idea of man in general from the ideas of particular men.

Psychic states undeniably exist and the ego or self is not the mere psychic state, but the entire psychic existence that reacts and adjusts itself. This consciousness is the only real knowledge that the self is one in the face of its

anoetic atomic construction.

Traditionally, the ego or self was considered as the seat, or fundamental principle of the intellect. On Professor Strong's view, however, intellect and intellection take on a different character. He takes stock of the usual characteristics connected with intellection - the ability to generalize, to grasp central meanings - but reapplies them in a new vein. What then is intellection? Well, according to his view, thought is simply the more or less ingenious and probable imagining of what cannot yet be experienced. From the biological viewpoint, intellection is thus an enlargement of the knowledge of the senses: it permits the knower to cognize aspects of objects in his environment with which he is not in actual contact. An obvious glance at the senses reveals at once, that none of them is able to do this; sight, for example, will not function unless there be a visible object, etc. Intellection is a thinking with reference to a before and an after: it allows for adjustment to objects beyond the present set of sensible occurrences and is in brief an "anticipatory vision." ⁴⁸

Intelligence then is not creative according to the Kantian tradition: rather intellection is a completion of the objects attained in external and internal perception. "It is thus (so far as a matter of consciousness) simply a more complicated givenness. Far from being able itself to

48. op. cit. p. 117

account for givenness, it presupposes givenness to account for it." ⁴⁹ It is entirely possible then for a thing to be apprehended intellectually, but not really known (i.e. it is non-cognitive: anoetic) - the larger view of the total relevance of objects to our being can only reach truth in a 'judgment', which is nothing else than instinctive affirmation or a practical attitude.⁵⁰ The essences which are the objects of intellection in the larger domain of thought achieve truth or falsity for the organism in a successful or unsuccessful connective response to the practical ends of its environment.⁵¹

Thus, intellection is a vague, inward, search into the general possibility of objects being of value to the organism and really

"no sensible person would deny the immense importance of intellection. Without it we should be unable to profit by our experiences or to carry anything away from them - so that, in so far as 'experience' means a learning and a treasuring up of what is learnt, and not a mere momentary cognizing, intellection is indeed necessary to its possibility. Without intellection sense-perception would be a mere dumb staring at the object, with, no doubt, correct instinctive responses to it but without any accession of wisdom." ⁵²

Thus we reach the conclusion that intellection is not necessary to cognition, but is a mere superstructure

49. op. cit. p. 118.

50. ibid.

51. op. cit. p. 181.

52. op. cit. p. 119 (underlining my own)

erected upon it. Intellectual interpretation is not essential to perception, and although we seem to become more acutely conscious to the degree that we are thinking, this is necessary because of the increased activity (consciousness) needed to precipitate the presentation of intellectual interpretation.⁵³ Intellection is then the larger reservoir of the psychic states capable of being reacted to by consciousness (will) in the total self.⁵⁴

The ego, to be sure, is the intellect, and the intellect is the ego, but they can never be self-conscious of themselves; we can never know that we really know in the same instant, for the existence of the ego can only be arrived at as an object of internal perception, and then only in a particular state. The situation at the level of internal

53. ibid.

54. cf. A Theory of Knowledge, pp.viii,ix: "There is a feeling (say, a visual sensation) in the brain, and this feeling is the part of the self which enables it to know. When a not-self appears before the self, it does so because we react or tend to react as if we were in the presence of an object - the feeling being that which prompts us to do so, and directs our activity: in such wise that the datum (the object as given) is apprehended, not by the feeling alone, but by feeling and activity combined - in other words, by the intellect. No feeling is ever as such a datum. When it comes to be a datum, it is because the intellect is now directed upon it, not upon the external thing: two activities of the mind which cannot occur together. The intellect is directed upon the feeling, because the feeling prompts us to movement appropriate to itself as a feeling; when this happens, the feeling is not merely in our minds, but it has become a datum for us."

perception is much like a person viewing the scenery from the observation car of a railway train: the objects appear successively from a source behind, not seen, which is nevertheless really above. And just as the objects appear to the viewer from the forepart of the train, say without the observer ever seeing both at once, so the ego may be given in internal perception but never seen for itself, by itself, in reference to the objects it embraces as essences in sense-perception. For "to cognize" and "to be cognized" belong to distinct existences. The primitive self is then a series of states, incidents of a process; the only unity it has is in the unity of function in much the same way as the motion of the train seems to give the appearance of the scenery as streaming by in a unified source. "Thus all unity in things appears to be made; while the plurality in them is inherent and fundamental." 55

Section E. The Origin, Character, and Office
of the Data

"The sense-data are products brought into being by the self." 56 This is the axiom which Professor Strong lays down as to the precise origin for the data so valuable to the basis of a supposedly sound epistemology. These sense-data of course are not voluntary, i.e. consciously, brought into being by the self, but rather are the flowing result

55. The Origin of Consciousness, p. 181.

56. A Creed for Sceptics, p. 5.

of a completely automatic process engrained in the very structure of the senses themselves and gradually are better developed over a long time extending back to their very inception in the evolutionary stages of nature itself and natural things.⁵⁷ Indeed, according to Professor Strong, it is this very fact which in its obviousness has paradoxically enough been sufficient to conceal it that caused its purloined discovery; for the nervous process (organic changes) in the cognitive act is only a remote effect of the stimulating object and as a process the subject is completely unaware of it until "the visual sentience evoking the motor response addressed, not to itself as a state of feeling, but to the external thing that called it forth" takes place.⁵⁸ The passage then from the sensory process to the motor act is the precise moment which "puts the animal in touch with the environment, on which it depends for food and safety." ⁵⁹ In other words, this passage is the sense-datum itself which constitutes the facing of reality (or brute facts) for the knowing organism.

But, as he goes on to explain,

"in determining the motor response, the visual sentience acts as if it were the object and as if its characters were the characters of the object. It is like an actor on the stage who is Hamlet. The fictive presentment of

57. ibid.

58. ibid.

59. ibid.

the object, thus engendered, is the sense-datum. That concern with the object which the visual sentence had not inherently, it now has functionally: and this function of presenting an object is awareness." 60

He goes on to explain in detail the dual phases of the motor response - the one ocular, the other practical. In the first phase, the eyes are directed to the object and muscular adjustment takes place; then, in the second phase, the muscular activity boils over into an immediate preparation for action which abruptly takes place - we see!; this latter process then has the epistemological meaning of "attention" (consciousness, awareness, formal character of knowledge, or simply behavior). During the period of the first phase we have only a physical presentment of the object, a latent feeling (emotion, perhaps), which at this stage is non-cognitive in state, and it is only in the second phase, when we react, that this feeling attains explicit cognitive status, so that automatically and regularly we treat what appears, to be external. "Thus sense-data arise by the internal being treated as external - a harmless fiction." 61

However, the distinct parts of the feeling corresponding to the temporal nervous processes in the first phase in themselves are too minuscule to precipitate reaction separately, and so they will only move en masse, and thus be

60. op. cit. p. 6 (underlining my own)

61. op. cit. p. 7.

reportedly simple in the sense-datum which reveals the real being of things to the knower in terms of action (the "knower" being the current concrete psychic state of the receptive organism.)⁶²

The two important leading characteristics of the sense-datum therefore are (1) its simplicity of expression of what is basically complex (in a word, fusion) (2) its externality in expressing the real (or, projection). And so, the 'apparent' is reconciled with the 'real'.

At this point, it can be seen that the datum summarizes the points which are essential for the act of cognition to take place. The sense-datum is really the focal point for the knower to reach the known. Professor Strong, in developing this point, calls upon the authority of Hobbes and Locke,⁶³ with whom he agrees, that sense-data are mere phantasms, without substance, power, or continuous existence, only pointing to the existence of real objects, and in so doing, do not, in any way at all, constitute the very reality of such physical things themselves; in a word, sense-data are "vehicular". In the very first presentments of their being, they are mere appearances, and their being depends on appearing, which being lasts as long as the appearance lasts. Thus, the externality of the sense-datum is

62. op. cit. p. 9; he gives the same account for the other physical senses.

63. op. cit. p. 8

fictitious, and its simplicity in expressing the complexity of the real is false. For it is only when the sense-data finally include explosions or precipitations of motor responses that their real being, or attainment of reality, is reached; so, the muscular feelings reveal the objects themselves as externalized, or genuinely realized - and things become truly real, for the force of their existence is truly met with by us, and we acknowledge them to be there. As he points out:

"The datum then is not a universal, out of time and space, and identical whenever met with: it is **rather** a particular - the substitute showing this particular thing as it is at this particular time. The antithesis of given and not given is thus not between attribute and substance, but between appearance and reality". And, "in reality the sense datum, while in itself a mere apparent or apparition, is in its office the appearance of a thing to a self - and so, essentially, a bridge over which the latter passes to the externally real. To use a more adequate simile, it is essentially a picture of the real which supposes the bridge to have been crossed. For the datum conceived as depicting, perhaps the best term is the traditional one, phenomenon." 64

Now, the substantial and efficacious presentment of things as the objects of the data are shown in detail by the specific explanations for the grasp of the sense-given characters in knowledge: these are space, time (the substantial characters), and causation (the efficacious character). That the concrete nature of the real is grasped is evidenced by the way in which these essential properties of the real are

64. op. cit. p.9

reached.⁶⁵ We shall examine each separately.

"Is real space - the space in which this table exists - of the same nature as phenomenal space, the space of the visual sense-datum?"⁶⁶ This is to ask whether "the visual sentience by means of which we perceive the table is in space, and in a space like that of the visual sense-datum?"⁶⁷ Now, if we remember that in both external and internal perception the data are fictive substitutes, we shall realize that the visual sense-data (for external perception) look to the visual feelings (to internal perception) for their false imputation of externality and simplification: (covering up their finer parts). Thus, the knowledge of space (phenomenal space) and the real space will be of the same general nature, but the knowledge of the real space will be exhibited in a larger scale or in larger wholes, with the smaller parts concealed. And so, phenomenal space is an average approximation of real space and is really attained "by passing in thought from the visual sense-datum to the state of the self on which it depends for its apparent being."⁶⁸ The real act of knowledge concerning such space,

65. cf. A Theory of Knowledge, p.vii: "I cannot resist the conviction that Nature, spread out in time and space as it appears to be, is real."

66. op. cit. p. 12.

67. ibid.

68. op. cit. p. 13.

however, does not take place until there is a successful instinctive reaction on our part to it. There we really feel out the reality of our appearance and it is realistically corrected.

Professor Strong at this juncture reveals an interesting insight into the way in which he conceived his theory of knowledge. He points out how impressed he was with the fact that in vision the manifold character of the parts given in the visual field are seen distinctly at the same time. He observes that it could hardly be due to the unifying process of the eye (because of the plurality in the nervous processes involved and also the obvious extension of the retina itself), but rather it is due to the function - "of parts co-operating harmoniously to produce a result, seeing and what is seen." ⁶⁹ Thus, it is the butt of action toward an event which unifies the act of knowledge, and not the attainment of the objective characters of the cognitive stimuli.

But to continue our analysis. We shall get a similar answer if we ask the question concerning time. The flowing instants, or presents, of time produce en masse in our internal perceptions feelings of their larger wholes which externalize and simplify these real bases for time falsely. "When one listens to a symphony of Mozart, the succession

69. ibid.

of tones, the pace, the intervals, the qualities of the individual tones, precisely reproduce the blowings and scrapings, the vibrations of strings and of air, which are the real events executed by the orchestra. We experience time, then, truly though only in its large-scale relations",⁷⁰ and it would, he adds, serve no important purpose for cognition to have to apprehend necessarily these objects in greater detail. At any rate, this second concrete characteristic of the sensible-real is in some way grasped, and any appeal for further accuracy must be answered in "vehicular" (instinctive) grounds, which for Professor Strong is always the important feature (the 'differentia specifica') of cognition.

He holds a similar view for causality:

"Of causation, which is the real not recreating itself merely but recreating itself changed, the same may be said. We are powerless to experience the changes of ultimate fineness in which the onward progress of the real consists: we experience only large **wholes** of change. But when we observe that a volition is regularly followed by a movement, or a felt need by an appropriate act - as when we are hungry and **take food** - we are not mistaken in thinking there is a causal relation, or rather an infinite series of causal relations, between the antecedent and the consequent. Uniform sequence may be causal production, because time itself is the real reproducing itself and for the most part reproducing itself changed." ⁷¹

Thus, time, space, and causation, the leading features of the sensible-concrete real, reveal themselves as objects

70. op. cit. p. 14.

71. ibid.

to our cognition. Their appearance as essences in sentience, however, which is prior is neither mental, nor material, or some possible third thing, but rather 'mind-stuff.' "Awareness, then, or consciousness as it is usually called, is no part of the nature of things; it is an animal function. The nature of things is unaware, anoetic, blind. It is, as Bertrand Russell says, something midway between mind and matter." ⁷²

Thus, Professor Strong's theory of knowledge reveals the nature of things before instinctive reaction as indifferential to matter or mind, and he regards it as his peculiar contribution to epistemology to have revealed this as a result of his sharp distinction between "sentience" and "awareness" in consciousness.⁷³

Section F. Relevant Historical Influences

With these doctrines set before us, we are now in the proper position to see how Professor Strong regards himself as being able to answer the historical statement of his so-called epistemological problem. The datum and consciousness are surely the ultimate notions, while the theory of instinct, on his view, closes the gap between knowledge and its object, a problem raised by the Cartesians and the Kantians. Let us now see how this is so.

The datum, as we have seen, is in essence a proposed

72. op. cit. pp. 16-17.

73. ibid.

"vehicle"; it is in Professor Strong's regard the last characteristic which can be safely ascribed to it in the face of scientific criticism. Some credit can be given to it as a report of the real object, but this is unreliable and unnecessary, not only because of the constant possibility that hallucinations, dreams, or errors may be taking place, but also because the reaction of instinct guarantees in the operation of the total organism that the subject is really attaining the existence of the object or not. Consciousness is nothing else than precisely this reaction, the motor side of the mind. All data, then, are data of consciousness, but consciousness itself is not a datum; there can be no real self-consciousness.

Now, the fact that consciousness itself cannot be a datum is the one mistake which led to the long search for a solution to the general question historically raised by the Cartesians and Kantians as to the reality and adequacy of cognition, or the search for a guarantee between knowledge and its object. Berkeley's "esse est percipi" was the original premise. It is Professor Strong's contention that the "esse" should be disengaged from the "percipi", at least in the generally accepted sense as the essence or being of knowledge itself: his contention being that the essence can be given to the knower physiologically, i.e. be inside the organism of the knower without knowledge at all

having taken place; thus, we must drive a wedge between the given-essence of the object and the knowledge itself which only **issues** forth in the reaction or motor response of the organism to the given-essence of the object.⁷⁴ This is the true "esse" of perception or knowledge; at the arrival of this characteristic the datum is the real ground of knowledge.⁷⁵

In this way, Professor Strong feels confident of a sound answer to the Scepticism of Hume and the Agnosticism of the Cartesians and Kantians.

As will be recalled, in the modern period of Philosophy, it was Descartes who tried to shake off the Scepticism culminating from the Mediaeval Period and personally focused and expressed in his time in the writings of Montaigne. Through the use of the well known universal positive methodic doubt he came to the conclusion that there was one fact

74. cf. A Theory of Knowledge, p.41: "There are three things to be distinguished: the datum, immediate experience, and the relation between the two. The datum (owing to the synthesis) is a whole, or has "totality"; immediate experience is a continuum; the synthesis of awareness, or glance by which immediate experience apprehends the datum, alone has unity. When these three are properly kept apart, all is harmonious, and there is no contradiction. But when awareness is said to be at once of the datum and of immediate experience, or when immediate experience is said to be in its nature awareness, confusion follows, and, as a result of the confusion, contradiction. The error consists in confusing the unity of the glance with the mere continuity of immediate experience."

75. op. cit. p. 37.

which defied all doubt - the existence of thought. To doubt is to think, and thinking is existing. The evident fact for Descartes was the "cogito". To establish the existence of the external material world, he was obliged to deduce the existence of God by means of the ontological argument, and thus base the certainty of all other existences on the veracity of God. This dictum was the point of departure to all later thought: reality is a datum of consciousness, that is to say - it exists only in thought. But Professor Strong asks the question: was the certainty of his own existence securely based?⁷⁶ Did Descartes actually give a rational disproof of Scepticism?

Evidently not. To be sure, we should not be conscious, or conscious of ourselves, if we did not "think", just as a mirror which would not reflect would not be a mirror, and least of all reflect another mirror with its own self-image. But the existence of the mirror does not for that reason consist in reflecting, nor does the existence of the self consist in thinking. Thus, Descartes should have carried his "universal doubt" further and discarded his own existence as well.⁷⁷ And yet, it seems that we cannot doubt that we doubt: where does the contradiction lie? It does not appear

76. The Origin of Consciousness, p.214: whether this was actually Descartes' position or not is not what is intended here, but, rather Professor Strong's view of Descartes' position is being proposed.

77. op. cit. p. 215.

to be a contradiction between the thesis regarding one form of cognition and the thesis regarding another, for we doubt the existence of all objects impartially. The contradiction lies between the doubting as an act (as a fact) and the **object** of that act - anything whatever one asserts or is tempted to assert: in short, the contradiction lies between the act (of doubt) and the sceptical thesis itself. The sceptical thesis must be devoid of anything knowable - and in this wise it is genuine, but the fault lies in attempting to penetrate it theoretically (demand a truth from it where it has none to give), whereas it should be grasped practically, or on moral grounds. "Theoretical universal scepticism is faultless", the fault with it is a moral one.⁷⁸

Universal scepticism can only be defeated on grounds of instinct: we should be unable to act, if it were so - we should stop eating and drinking, talking to other persons as though they were real, and finally cease to think that we exist! But one will readily reply that we cannot live this way. And this is precisely the point - the ultimate ground of knowledge, at the cost of no knowledge at all, is "a powerful instinct."⁷⁹

We must then embark on a course of cognition which impels us to act as if objects existed - this way will not only **serve** our interests, but also will be a source of

78. op. cit. pp. 217-218.

79. op. cit. p. 221.

infallibility in all circumstances, for even the supposed sceptics must live as ordinary men.

Reason alone cannot provide any light: she can offer no abstract principles from which the deduction of existences may be certain - we must turn to instinct! And what is instinct? Not a mysterious, mystic belief, to be sure. It is the direct existential response of an organism to another existence: this is truth. Reaction to non-existence is unbelievable. Thus, falsity is always revealed in the face of truth. And another name for instinct, then, is consciousness.

However, this doctrine must not be misapplied. It does not mean that we are committed to believing everything the human race has believed in (as, ghosts) since we believe in material objects and other selves. "Every belief must be tested by its conformity with experience." 80

Scepticism then arises through ignoring the motor response of the mind, or the intent of the organism toward what is deemed real in virtue of "instinctive trust." 81 Thus, his refutation of Scepticism depends on two principles, which in his regard avoid the total bankruptcy of human knowledge: (1) the sense-datum is an apparent thing because of the muscular feelings which enter into its composition (2) the sense-datum as an apparent thing believed to be real

80. op. cit. pp. 222-224.

81. A Creed for Sceptics, p. 9.

is so because of the motor response answering to the feelings. And as he goes on to explain:

"The need for instinctive trust in a consequence of the looseness of the cognitive relation, as Nature, accumulating chance variations, has in fact brought it about. But this loose relation, if naturally used, yields knowledge, which later knowledge confirms; and we have no other means of knowing, or even of thinking about the non-given. Scepticism ignores the real situation, and is therefore as mistaken as it is unnatural." ⁸²

But granting that reality is known to exist on grounds of instinct, the further question arises as to the degree of validity such cognition can have. How can we be certain of the thing as cognition shows it? In other words, to what degree is knowledge adequate?

The Kantian and the post-Kantian tradition in epistemology was virtually agnostic on this question, which is obviously but scepticism further applied to the adequacy of cognition. Kant, it will be recalled, did not grant that the essence of reality itself was in any way adequately knowledge: the intellect could never form a true and scientific universal concept from sense knowledge alone; however, to be realistic he held to the bare existentia of the ding-an-sich. The further details of his system are well known: the sensible objects of intuition are given (invested) with the purely subjective forms of time and space, and there follows upwards an appropriate spiral of a priori forms for the judgment and pure reason itself. The post-Kantians in

82. op. cit. pp. 10-11.

turn found it necessary to suppress completely the realistic ding-an-sich of the Kantian system and argue to a complete subjectivism of Absolute Idealism. For they argue that whatever object is known by the knower must inevitably take on the reality of the knower, and since there is no third principle to which we can appeal as a check for the conformity of the object with the given-essence, there is no way of penetrating things as they really are - granting that they are really there at all at this stage of the argument.⁸³

Thus Agnosticism, in its initial Kantian formulation, does not doubt the existence of the externally real, but doubts the possibility of knowing its nature or essence because real things are known by substitutes. In its post-Kantian form, Agnosticism goes so far as to doubt the existence of the externally real world.

That it is; yes! (originally with Kant; later, no! with the post-Kantians) But what it is; never!

In Professor Strong's view of the matter, there could be no answer if it were not for the principles which he presumes already to have established firmly. The vehicular theory of cognition avoids the entire difficulty, granting to it whatever reality knowledge interpreted in the agnostic view may have, but transcending the entire question through the sense-data of instinctive organismic response. As we have seen, these data are simply not the objects which they

83. The Origin of Consciousness, pp. 224-225.

mean in the sense of given-essences; they rather attain reality through the immediacy of motor-response. Consequently, the Agnosticism precipitated by the Kantian and post-Kantian thought has been defective in its epistemology on the obvious fact that human beings are animals. The animals live in an environment more or less successfully, owing to their ability to adjust themselves to things for survival. The evolution and development of Nature has gradually endowed them with the organs of sense to accomplish this; in virtue of these instruments, animals are able to deal with objects in their different aspects and relations of color, size, location, etc. In a word, these organs enable them "to react". And it is this ability to react that reveals existence or non-existence (i.e. real knowledge) to the animal. The ultimate justification and ground, then, for the reality of knowledge is the animal faith (instinct) of existence. ⁸⁴

It does no good for Idealistic Agnosticism to reply that their assertions do not deny that we are animals, and that objects refer to the body in an evident externality, which is other than the mind, to which they are mental, and not extramental; in this sense, according to the agnostic doctrine, their "being" must be a "being known" (*esse est percipi*) and the inevitable agnostic conclusions must then follow. Professor Strong's general approach again evidences

84. A Creed for Sceptics, p. 17

itself here in his answer to their objection: the mind is inseparably bound up with the body - in fact they are two sides of the same knife (the "physical method"). Objects, in being external to the body are also external to the mind, but not external or beyond in the sense of being known in perception and thoughts, but only in the sense of enjoying existence independently of these. Accordingly, it is the essence of Professor Strong's position on knowledge that objects exist in the knower as unperceived, i.e. really be there inside the knower as presentments or essences, but not be known until they become data through organismic reaction. Thus, on his view the difficulty in knowledge which apparently leads the Agnostics to their position is avoided. Consequently, there are two factors at stake which ought not to be confused: (1) the object can exist within the knower unperceived: at this, the knower can be the known, but this does not yet constitute the act of knowledge, and the Agnostics cannot draw their critical conclusions on the cognitive act (2) the motor-response to the essence (all of which mean the sense-datum) affirms the reality (existence) of the object, and the act of knowledge then genuinely takes place: to this, Professor Strong is able to reply further to the agnostic position by preventing its application completely in pointing to the independent existences of the datum, the object, and the essence.

Consciousness as an act does not and cannot then constitute knowledge when the object is presented internally within the sentient organism itself; consciousness is rather a second act or better, operation (function), answering to the prior entry of the object as an essence intimately within the organism in a later temporal moment through a highly indicative reaction to its existence, thus infallibly disclosing it to be really there or not (truth or falsity) in knowledge.

With the apparently complete bankruptcy of the cognitive relation in Kantian and post-Kantian idealism, which yielded Agnosticism and Scepticism, Professor Strong finds it possible to interpret post-Kantian voluntarism empirically⁸⁵ and solve the problem in realistic terms.

The answer to Agnosticism therefore according to Professor Strong is to reveal the medium by which the relation between the object and the given-essence may be guaranteed. This particular medium he finds in his own theory as the peculiar relation between the given-essence and the psychic state according to the vehicular notion of cognition. The psychic state in conjunction with the motor-response provide the sense-datum with a guarantee for closing the doubtful breach between the given-essence and the object. Thus, if we can compare the given-essence with the psychic state,

85. Here James' and Renouvier's pluralistic and realistic voluntarism is strikingly illustrated.

there is the equivalent of validating the comparison of the adequacy of grasp of the object by the given-essence. And we can do this - as we have already seen in the doctrine on introspection. Here, we can critically estimate the adequacy of the object in terms of the given-essence insofar as the given-essence itself serves us for our adjustment to objects.⁸⁶ "In brief, on the vehicular theory introspection may be held to be approximately true knowledge."⁸⁷

Let us consider some examples. Take the size of visual objects (essences) in sense-perception. These vary greatly from one another, but always seem to be known genuinely and adequately in the sensation through the motor-attitude - not, however, in the perceptual essence of the sensation, but in the introspective essence. If an attentive comparison is made between the two, the proper size will be found. The same may be said of pain: the painfulness of pain is not the pain-sensations themselves, but the strong resistance with which we oppose them (the motor-response); if we attentively abstract from this resistance, or suppress it totally, the adequacy of the pure sensation reveals itself in introspection, i.e. the motor-attitude now directs our knowledge to its inward reality.⁸⁸

And so, he maintains that,

86. The Origin of Consciousness, p. 230.

87. op. cit. p. 231.

88. op. cit. pp. 231-232.

"The most important result of our epistemological enquiry is, after all, that knowledge has been demonstrated to be really knowledge. The essences given in sense-perception and introspection are not veils which have the effect of concealing reality from us, but loop holes through which we truly contemplate it. Is not the clearest disproof of modern idealistic and sceptical philosophy to be found in the fact that it resulted in demonstrating knowledge to be ignorance?"⁸⁹

Accordingly, as Professor Strong openly admits, the essential pre-suppositions of his position are Kantian in observing the distinction between "phenomena" and "things in themselves" to be knowable within certain limits.⁹⁰ Thus, what we are really witnessing is the Kantian view of Mind transformed into Will with a similar pattern of distribution. For Kant, the Mind distributed itself at the three levels of knowledge: Sense, Understanding, and Reason - yielding intuitions, concepts, and ideas. For Professor Strong, it is the Will which establishes and guarantees the reality and knowledge of "things in themselves" (Being) in terms of Belief at the three levels of organismic function: external and internal perception, and the Ego itself - yielding reactions to the existence of physical objects, the attainment of their space, time, and causation, and the existence of the Ego as an object of

89. op.cit. p. 235.

90. op. cit. pp. 234-235.

introspection.⁹¹ Hence, the conformity or non-conformity of this "vehicular theory of cognition" with the traditional Kantian distinction between "things in themselves" and "appearances" reapplied in terms of the "datum" and the "object". And, in conclusion, he points out that,

"Agnosticism, then, must be replaced by Gnosticism, as Scepticism was replaced by Belief. And again, I hasten to add that this reasoning is not ultimately cogent, or rather coercive, for the reason that it unfortunately has to rest on premises. In the end we have to fall back on Belief, to maintain the value of knowledge as much as to maintain the fact of it." 92

91. A Theory of Knowledge, p. 55: "It is none the less true that we live in a world of matter. Time and space part us from other selves, and also from inanimate objects. In this incurable separation of objects from the percipient, how shall they be known? We grasp at the idea of an immediate intuition; but Nature could not give it to us, for we are dust. What she has done is to permit us, by means of sense-organs, to picture external things, and to endow us with a natural trust that those pictures are true. We believe upon instinct, which is the guide of life to every healthy animal."

92. op. cit. p. 65

CHAPTER III.

TIME, SPACE AND BEING

In a small, but closely written and compact, essay in Professor Strong's "Creed for Sceptics",¹ there is explained his basic views on the ultimates of Nature; this actual essay on natural philosophy is entitled "L'Être et le Devenir" and is written entirely in French for the reason that it "makes its points in what the writer devoutly believes to be a French way".² And since the tradition of French exposition is one of clarity, we should expect much of such a treatise.

The points of departure for his analysis of the ultimate meaning of nature are, as expressed in the title, the classical notions of "Being" and "Becoming". He asks what "becoming" is, and its relation to "being"? From common sense observation, the obvious answer is that "becoming" presupposes "that something exists" for clearly a thing cannot act unless it exists: change always presupposes the thing itself which changes, or better, the thing itself which is changed, for if change itself were to change, it would pass into something else and be another reality entirely apart from the very point of the original discussion. So, "the seed becomes the plant, the child becomes a man, a liquid becomes a gas.

1. A Creed for Sceptics, Macmillan, 1936, p. 59.

2. op. cit., Intro., p. vii.

Becoming is a relation between two beings. Being is the more fundamental conception." ³

Going further, however, we discover that in what we have designated as being, there is an undefined quantity to being itself. For example, a liquid is made up of molecules, the molecule of atoms, and the atom of protons and electrons - moreover, all these elements are in a continual state of motion; furthermore, it is obvious to general observation that an element has to be first in one place, and then possibly change to another place. Hence, "to be in a place(s)" is more fundamental, and, so to speak, beneath becoming itself. ⁴

A lapse of time, however small, is further required for a becoming. And a becoming, if it is continuous cannot in its change be in any one place or state for more than an instant. What then are these instants, and their relation to duration itself? Thus, our problem is to ascertain the nature of time. And the same question arises for space in terms of points. What are the ultimate elements of time and space? ⁵

No one, however, has had any sense experience of either instants or points. Such an inference is one of knowledge

3. op. cit. p. 59

4. ibid.

5. ibid.

into the nature of the real and presupposes a discussion on the nature of knowledge itself,⁶ for sense experience does not reveal in itself what our knowledge of it has just recently led us to - instants and points.

And yet, there seem to be cases of becoming which do not involve changes of place. One who speaks of knowledge speaks of consciousness. And consciousness, appearing and disappearing, is among those things which change or become. What then is the relation of this becoming to a material becoming?⁷

Also, with consciousness is allied the will, a similar case of a becoming without a change of place. Its becoming is said to be free. How is this liberty to be reconciled with the necessity of a material becoming?⁸

This last problem, on Professor Strong's view, crystallizes all the principal questions of philosophy - not to mention its intimate relationship to theories and scientific facts. He seems to think that we should not even attempt to deal with the question until all the data are in from physics, biology, or psychology; only then may philosophy begin modestly to clarify our ideas.⁹

6. op. cit. p. 60

7. ibid.

8. ibid.

9. ibid.

Nevertheless, we are told that our problem is a good means to attack the fundamental enigma of the one and the many. Let us begin at the bottom and proceed upwards through synthesis. But this must be a provisional synthesis based on the facts of natural science, which are always open to revision in the face of further possible research, and we must humbly realize this.¹⁰

The program of topics for discussion which Professor Strong sets before us in his study of Nature therefore are Time, Space, Being, Consciousness, and Free Will. We shall consider the first three in this chapter and take up the latter two in the chapter following.

Section A. Time

The smallest elements are not matters of ordinary sense experience. The facts of physics bear this out: no one can sense a proton or an electron; our sense organs, and the very structure of our brain, are not equipped to disclose the ultra-microscopic. Their general significance and function are only to serve the needs of life. Nevertheless, some atoms can be counted and their speed calculated, and these ought to be regarded as real. But there is still a difference between the real and the apparent. And the intellect sets up divisions or units for space and time. How legitimate are such divisions in the face of the fact that

10. ibid.

the unit-bases of such divisions are inferences of knowledge based on ordinary sense experiences which do not at all wholly reveal them?¹¹

In the case of time, for example, it is the plainest fact that we are living and existing in the present: in fact, what wholly exists is the present. The past is a time which was present, while the future is a time which will be present. But what then is the present?¹²

The present of our experience, the present which is a given of consciousness is a small lapse of time amounting to a fraction of a second. Its first part has already passed the moment we perceive it and is only really given in the perception of primary memory. And so, it is not of the true present. The extremely small duration of the true present is really only an appearance, summarily simplified and telescoped to such a temporal limit for the needs of life; its accuracy is only an appearance for the sake of practical needs. The real present behind this specious present still has to be sought for behind this appearance in its process of ever dividing into smaller units. But how? It would seem that we would have to analyze the instant.¹³

However, if the present is of an infinitely small

11. op. cit. pp. 60-61

12. ibid.

13. ibid.

duration, the instant would seem to be unable completely to support and contain real time, for it would disappear. Consequently, the suggestion arises that it ought to contain at least two presents to prevent its absolute disappearance or evaporation into the unanalyzable dust of an infinitely small duration. But this is equally impossible for the real present can only exist at one time and not several. Time then cannot be an instant, but rather instants.¹⁴

But once this is admitted, how then does it flow? Composed of instants, time seems to be broken, disjointed, and discrete, and not continuous and flowing - all of which is against the facts or data of science. Moreover, if time consists of a series of instants, how can one instant be right next to the other when each can exist at one time only? Any two instants of time cannot be simultaneous, but only successive, and the parts of a succession must withdraw into non-existence in favor of the current one; the king, for example, must die, or at least abdicate, in order for the prince to succeed him.¹⁵

The answer to the difficulties resulting from our last-taken position seem to center on the general error of misconceiving time to be a real void and vacant container which somehow must simultaneously accommodate the past and and the future in itself as ever-present; yet, as

14. ibid.

15. ibid.

ever-present, it cannot really flow, as it should; hence, the difficulties. The true nature of time, based on the data of physics, tells us that time is not an independent receptacle, but that there is an entire universe in each instant; it contains the universe as actual, but not as actual and entire, for there is an actuality following, as sense experience attests, and the universe exists again at that instant: this actuality is the power (puissance) to present - literally - the future.¹⁶

But what is this power of the instant? It is the condition of what is to follow, which renders the latter inevitable. This, in Professor Strong's view of the matter, is what makes time comprehensible on the basis of the data supplied by physics: the power and action of what exists at one instant is a fact, a primitive starting point, which one must admit in order to begin to understand the nature of time. One's instincts demand this analysis and philosophy cannot withdraw these forces, otherwise it would be baseless. The grand truth is reached in one's instincts responding according to their essential character to the instinct or power of time's instant to present the future or the next instant. This is surely the theory, or better the fact, of present instinctive time framed in the heart of a crude Realism. The power (puissance) of this instant to present the actual future is an ability (pouvoir), and

16. ibid.

this ability must be equally well accepted with the power to explain change:

"la puissance est aussi un pouvoir...Mais il sera com-
mode de distinguer verbalement puissance et pouvoir,
et de dire que la puissance est ce qui fait que les
choses continuent, ou se créent de nouveau, et le pou-
voir ce qui fait qu'elles changent." 17

Now a difficulty arises: is the new instant, in this analysis, merely the old instant being instantaneously continued (and then it is really not successive at all), or does it create a different being in the actualizing itself? Professor Strong gives reasons for one or the other choice. Firstly, the future instant (even the next immediate future instant) does not exist to the present instant; so, to arrive, it has to be created. But this is a miracle; now, since existence is not a miracle (which Professor Strong regards as something which we cannot explain, but ought to accept), then it must be due to creation, which is also not an explanation, for it would be a case of a being created trying to support another being created, the former having to fade out in production of another, the latter, which is going to do precisely the same thing. But nothing can naturally come from nothing. Secondly, then, why not say that the present instant produces the future instant in the old instant being merely continued? The answer is that there would exist two instants in the same time, which is

17. op. cit. pp. 63-64.

impossible. Moreover, the instant itself would be really eternal and would not really pass or be truly successive. Professor Strong's final solution is supposed to avoid both extremes; we quote it in his own mode of expression:

"Enfin, remarquons que ce lien que nous avons appelé dérivation, ou actualisation de la puissance, n'est pas un événement qui s'insère entre les deux instants du réel. C'est l'arrivée immédiate du deuxième instant. Il n'y a pas d'instant intermédiaire. Ces instants sont donc, pour ainsi dire, en apposition temporelle. Voici justement ce qui fait la continuité du temps, son écoulement sans rupture. Tout événement a une durée, et consiste en au moins deux instants du réel, qui n'existent pas à la fois."¹⁹

Thus, in order to avoid a non-existent instant absurdly producing in ghost-like fashion a new instant an eternally continued instant, we find ourselves being asked to subscribe to an explanation of time which is somewhere midway between a theory of pure creation and a continued eternal instant. By willfully discarding the miraculous element in the first considered extreme of creation and deliberately adhering still to the forced recognition of the real arrival of an instant which will survive somehow to produce the next one (and not be immediately gone or on the way to fading out before it has done so), we are asked to realize that the

18. op. cit., pp. 64-65.

19. op. cit., p. 65: "Finally, let us remark that the link which we have called derivation, or the actualization of the power, is not an event which is inserted between the two instants of the real. It is the immediate arrival of the second instant. These instants are then, that is to say, in temporal opposition. That is rightly what makes the continuity of time, its

continuity without rupture. Every event has a duration, and it consists in at least two instants of the real, which do not exist at the same time."

next instant is effectively and creatively new - being in the ability of the present instant' s power.

In another work, "Essays on the Natural Origin of the Mind", wherein he develops the same topic, he summarizes his basic intension and meaning thus: "It is of the nature of the real to continue in being. The real is of such a nature as to prolong its being from instant to instant. It is self-perpetuating." ²⁰

Professor Strong, however, advances these views on Time with some misgivings, for he admits that possibly either creation or continuation alone could be defensible explanations, and if we should be pressed to be specific, it would be far better, he advises, to remain alone humbly with the facts of experimental science, rather than accept his admittedly strained explanation of them, or his whole metaphysic. ²¹

Section B. Space

The logical point of departure to the consideration of space from that of time is to pass from the analysis and explanation of instants, the apparent units of time, to that of points, the units of space. However, according to Professor Strong, we must guard against carrying this analogy too far, for the same relationships do not carry through

20. Essays on the Natural Origin of the Mind, p. 153.

21. A Creed for Sceptics, p. 65.

in the same fashion. But the safety of the analogy carries with it the similar warnings: we must not conceive space as some sort of empty receptacle in which bodies rest, but rather as "a dimension of matter", co-extensively identical with the real itself. Indeed, a portion of space (or matter) is again seen to be infinitely divisible into smaller and smaller stretched-out spaces as with the instants of time, and this process is seen to continue to infinity. So we must observe that "ce qui est divisible est déjà en soi divisible".²² These ultimate divided elements are the points. Physical science may yet reveal further elements beyond these points, but it is sufficient at this stage of our knowledge to realize that they are conceptually necessary to the understanding of our current knowledge of space.

Ought space to be conceived as an "ensemble" of points? The position that it should be so conceived is plausible, but the difficulty arises as to the nature or reason for them coming into such an ensemble or arrangement so as to constitute a three dimensional formation; in other words, what is there about points that leads their arrangement to be three dimensional? The genuine necessity for searching for such a reason appears clearly when we consider the fact that if two points lie next to each other, there can be no place or space between them; if there were, each of the points would be next to the place, but they would not be

22. op. cit. p. 66

next to each other. It would then be impossible to draw a line between the two adjacent points: the line must pass either through one point or through the other. The points are then distinct - they are really two, not one - but there is no gap between them. Extension then in three dimensions must lie in points (at least two) in their bond, juncture, or relation to one another, and this relation is not other than the points themselves: it does not fall outside them. Indeed, an isolated point could not account for extension, for it would finally disappear beyond conceptual attainment in the infinite number of divisions necessary to reach it. Any given unit of extension must then consist of two adjacent points.²³

We observed the same state of affairs to hold in reference to time: one instant germinates the next instant. But how does one point produce extension in reference to the next point? The specific answer is to be found in the genesis of instants in time. It will be recalled that, in time, the one instant "quasi-creatively" produced the next instant so that the fading out of the one would expel an impulse, force, or energy (puissance) which regenerate or recreate the rise of the next instant - in which case the new instant would be so conceived as to be contained in the virtual energy or ability (pouvoir) of the previous instant because

23. Op. cit. p. 67; cf. also, Essays on the Natural Origin of the Mind, pp. 136-139.

of the blunt fact of its very arrival, or sheer being there.²⁴ Now, the disparity of energy embodied in the flowing instants constantly hypostasizes the present into a radical bifurcation - which is the precise factor for the explanation of extension. The instant of time is a continued creation to the next one, and as a necessary by-product pulsates in an energy gap of points in extension: this gives space. Thus, the very crux of the difficulty in the explanation of the instants of time with regard to their flowing (when there seems to be a disjointed scheme of one going out of existence and another coming into existence) actually becomes the reason for the extension of points giving space. The instants temporarily create (or rather self-perpetuate) one another, and the necessary disjunction in their reciprocal "fade-out:fade-in" process immediately gives birth to a series of points spread out in

24. A Creed for Sceptics, p. 68: "Nous nous rappelons que la science courante parle d'espace-temps. Ces liens, qui ne peuvent pas exister dans l'instant, se forment peut-être dans la transition d'un instant à l'instant suivant. Car le changement est un fait. Nous avons dit que l'énergie coule de point en point, qu'elle se redistribue dans la transition entre deux instants: cela constitue un lien entre les points."

extension, or simply Space! 25

We quote, from the original text, the summary of these two notions: space and time, and their interrelations:

"Tous deux sont des liaisons réelles entre êtres qui à chaque instant restent sans liaison et, ainsi, indépendants les uns des autres; liaisons qui s'établissent quand les choses continuent d'être tout en changeant, et qu'un de leurs arrangements se transforme en un autre. Ces deux ordres, le temporel et le spatial, sont indissolublement unis, puisqu'ils sont créés par la même action. Ils n'en sont pas moins distincts. On ne devrait pas dire que le temps est une dimension de l'espace; tout ce qui demeure vrai, c'est que le temps peut être traité mathématiquement comme s'il était une telle dimension, par les mêmes équations différentielles. Ce qui pourrait, avec plus de raison, être appelé une quatrième dimension de l'espace est l'intensité, la quantité d'énergie que contient chaque point en un instant. Il se peut que cette quantité, ou le rapport entre ces quantités dans une petite étendue, indique ou préforme le cours que l'énergie suivra de cet instant à l'instant prochain. L'être et le devenir sont donc distincts. Le devenir est quelque chose qui arrive aux êtres, quelque chose qu'ils font. Il présuppose des êtres; il est donc plus complexe que l'être, occupe un plan logiquement supérieur. Ainsi nous avons reconnu la réalité des deux catégories fondamentales de substance

25. However, if one were to press the question at this juncture as to where this energy comes from, the answer of Professor Strong would be: "Ce qui crée l'énergie actuelle est l'énergie antérieure en tant que puissance; et, en créant, elle périt elle-même. C'est une croissance. Mais une croissance, dont les étapes successives sont combinées d'une manière incompréhensible pour nous miraculeuse. C'est un miracle naturel. Tout ce que nous pouvons dire, c'est qu'à une certaine distribution des énergies succède une autre, légèrement différente. C'est un fait ultime." (A Creed for Sceptics, p. 69) Thus, we reach the same central principle - belief - which is the reaction of our organism (consciousness) to the power and force of the object.

et de cause, précisé leur rapport, et admis qu'elles sont de type différent." ²⁶

Thus, we reach the notions of "substance" as referring to space and "cause" as referring to time. In reality, apart from the mind there is no substance, no cause, no space, no time - but only beings which are spaced, and are timed; the "relations between non-adjacent parts of space and of time have no existence in Nature, but are sums made by human minds thinking of Nature, and if the sums have

26. op. cit. p. 71: "Both are of the real relations between beings which at each instant remain without relation and, accordingly, are independent from each other; relations which are established when things continue being whole in changing, so that one of their relationships is transformed into another. These two orders, the temporal and the spatial, are indissolubly united, although they are created through the same action. They are not at all distinct from one another. One ought not to say that time is a dimension of space; the whole truth rests in the fact that time ought to be treated mathematically as if it would be one dimension through the same differential equations. What could be called then with very great reason a fourth dimension of space is intensity, the quantity of energy which contains each point in an instant. It is possible that this quantity, or the relation between these quantities in a small extension, indicates or preforms the course which the energy would follow from this instant to the next instant. Being and becoming are then distinct. Becoming is something which appears between beings, something which they make. It presupposes beings; it is then more complex than being, it occupies a logically superior plan. And so, we have recognized the reality of two fundamental categories, of substance and cause, precised their relationship, and admitted that they are of a different type."

been correctly made, possessed of truth." 27

Section C. The Nature of Being

Is it possible to explain the beings of consciousness and will, which have been traditionally regarded as immaterial, as independent of the material becomings of space and time which are at the very structure of the universe? It will be seen that these beings too which exist among the beings subject to change in time and space are also essential parts of the same explanation and pattern, although they still retain their fundamental value as expressed in traditional philosophy; consciousness and will still

27. Essays on the Natural Origin of the Mind, p.159:
 It is interesting to note that Strong again puts forth this thesis on space with an apologetic air; as he says: "C'est celle de mes thèses que j'avance avec le moins de confiance" (A Creed for Sceptics, p.70) -- An illuminating parallel text occurs in the Essays...pp.157-8: "Turning now to space, we say that the forces in contiguous points strive together or cooperate. This means that they act as one in producing the redistribution of energy which is their effect. They act as one, because the effect cannot be ascribed to either alone, but only to them both. This effect, if the quantity of energy in the two points is equal, will be continuance of their relation without change; if the quantity is unequal, it will be passage of energy from one point into the other. Thus, in action, powers which are internal to two (or more) points produce an effect beyond each of those points: so that, here again, what was internal has given rise to a new external relation. New spatial junctions between the units of energy are bred at each fresh instant by the action of those units at the preceding instant. Space, like time, appears to rest on that operation of energies which is the essence of becoming."

characterize our cognitions and appetitions. But these notions still must be precised and revised in the more central conception of natural being.²⁸

We have already assigned force or energy to time in the category of causality, and its offspring, space, refers to the category of substance. But this has been only a preliminary and somewhat descriptive approach to the real question: what is this substance in itself to which time and space lead us to consider? Physics does not seem to be much help to us on this point for it confines its investigations to the real as disclosed by the apparent and measures only externals, so to speak.²⁹

And if the objection be raised that not all beings have this animation or sentient life: organisms are always produced through other organisms, it will be accordingly necessary to derive the nature of these organisms, from what is non-organic, inorganic, or mineral. Vitalism seems to demand that there be a fundamental distinction between living and non-living beings. What is non-living seems to be devoid of consciousness. However, as will be seen, that what has been regarded to be devoid of consciousness (non-cognitive) in the traditional view of vitalism, could be regarded as truly being conscious (cognitive) when

28. A Creed for Sceptics, p. 71.

29. op. cit. p. 72.

interpreted in another sense.³⁰

Very obviously, the starting point for the fulfillment of this promise is to ascertain the precise value of the organic versus the inorganic, or living organism versus the mineral. Organism or organization amount merely to the arrangement of beings which somewhat permanently endures or continues: the forces of their beings are allied in a stable configuration which produces the vital result or living operation. And we regard the brain as a unique culmination to this gradual rise in more and more complicated organization in the continuity of nature. What then is the soul, life itself, animation, or the form which is at the basis of this organization, for, after all, organization is only a species of form?

Let us adopt the general approach to the solution of this question as dictated by the physical method: the soul and matter are of the same nature; there is an inchoative animation or life - nature in all beings. What then is the nature of this life, or the very kernel of its "thinghood?"³¹ It is sensation: at the bottom of ourselves and in each object of the universe we find this sensation-force, or impulsion, which is at the very essence of

30. op. cit. pp. 72-73.

31. On this point, Strong quotes Spinoza with approval: "omnia quamvis diversis gradibus animata sunt". op. cit. p. 72.

instinct (belief). And what is sensation? We quote from the original text in Professor Strong's own words:

"J'entends par 'sensation', non la perception d'une qualité, mais l'état de celui qui la perçoit - non le senti, mais le sentant. Ne pas vouloir distinguer entre la sensation et l'acte de percevoir une qualité, c'est comme si on ne voulait pas distinguer entre L'estomac et la digestion, ou entre les jambes et la marche. Ce n'est pas en cogitant que nous sommes, mais en sentant." 32

This impulsion then of the organism to act or react is therefore the real radix of power or act (puissance), or the ability to act (pouvoir) in our beings, and they are really in the last analysis only energies, and this is natural being. And so, he further explains:

"Imaginons maintenant que nos systèmes nerveux consistent en un nombre immense de sensations-forces, dont chacune est, pour ainsi dire, un petit point de lumière intérieure; que celles-ci se recréent continuellement et, par leurs pouvoirs, déterminent le changement, s'entretenant toujours de manière nouvelle. N'aurions-nous pas ainsi quelque chose qui ressemble fort à l'âme - et qui pourrait apparaître du

32. op. cit. footnote, p. 74: "I understand through 'sensation' not the perception of a quality, but the state of the one who perceives - not the being sensed, but the sensing. Not to be willing to distinguish between the sensation and the act of perceiving a quality is like one who would not distinguish between the stomach and the digestion, or between the legs and the walk. It is not in thinking that we are, but in sensing."

dehors comme un système nerveux?" 33

However, if the objection be raised that if time and the points of space constitute consciousness, and no point could know itself, making self-consciousness impossible, Professor Strong merely points out that he has already explained consciousness to be a transient function through which the soul comes into relation with an object; both the soul and its object are multiple and they attain to the relation of knowledge, or the essence of the object reveals its unity, meaning, and significance to the soul, when the soul or material organism reacts in a function, action, or operation to the object; just as, for example, in eyesight "le regard est un, et la vision qui se presente a lui enveloppe une multitude." 34

33. op. cit. p. 75: "Let us imagine then that our nervous system consists of an immense number of sensation-forces each of which is, so to speak, a small point of interior light; that these sensation-forces re-create themselves continually, and through their abilities, determine change, supporting themselves always in a new manner. Would we not then have something which very strongly resembles the soul - and which would appear externally as a nervous system?"

34. ibid.

CHAPTER IV

CONSCIOUSNESS AND FREE WILL

Section A. Consciousness

Before setting forth the basic principles constituting what Professor Strong believes to be the mechanism of consciousness, we must report a brief description, which is more or less of a review, of what he thinks are the important aspects of the knowing process, for it is to this task that the "mechanism" of consciousness is directed, and the service of this end is the very reason for its being, as with every machine in reference to its intended purpose.

To Professor Strong, the elements of the knowing process, pertinently summarized, reveal themselves as follows. Sensible objects obtrude themselves upon us - they appear before us. Through visual, tactile, muscular, etc., sensations the object(s) reveals itself in a definite time and space. The representations, phantasms, or sensations are the sensible significations of the objects themselves, but are not identical with them; they are up to this point only pure appearances, with neither substance nor power.¹ It is only at the moment of attention, or instinctive tension, when the organism reacts to the object in that aspect of it which will direct the states of the soul or organism itself to what is

1. cf. A Creed for Sceptics, p. 76.

useful to its very life. This is knowledge, consciousness, or "animation", which Professor Strong regards as the ultimate master-key to his entire natural philosophy.²

Now, in the mechanism of consciousness which is meant to implement the elements of the knowing process, briefly described above, there are involved, according to Professor Strong, three factors, each with specific and definite contributions:

- (1) the sensation-forces themselves
- (2) their projection as signs through the reaction
- (3) the simplifying effect of attention, revealing what is important and of value to life.³

The important stage, of course, is number three in the development of consciousness or attention: it is here that the object itself is known as real in its sensation-forces which are bound together in space-time; indeed, Professor Strong looks upon the soul itself as nothing else but the action in the reaction, or the very core of the natural organism itself. The soul then is in space and in time, which are but two aspects of the same action, the very radix of the organism itself. All Nature is basically Life in Action, or simply "Animation", as he puts it.⁴

2. op. cit. p. 77.

3. ibid.

4. ibid.

But let us examine an illustrative example of the "mechanism of consciousness" at work, say in the perception of space. First of all, there is an arrangement of visual, or perhaps tactile, sensations in the brain; then, these precipitate a reaction pointed toward the object which caused them. Now, it is this reaction, combined with the simultaneous muscular sensations, which causes our orientation to the object and gives birth to a visual or tactile phantasm situating the object before us.⁵ We neither see nor touch the smallest aspects or parts of things, but attention alone suffices to clarify what is at once and immediately useful to the organism's life (as, the snake strikes its prey for food; similarly, the cat crouches and jumps on its victim.)⁶

Consequently, for Professor Strong, if this theory is correct, it supposedly answers the errors, doubts, and insufficiencies of the theories of consciousness issuing forth from the well-spring of historical tradition: phenomenalism, scepticism, and agnosticism. Phenomenalism holds to the identity of representations with things in themselves: the real is the apparent. But the false principle upon which this is based is that the representations or phantasms are the very stuff, sum and substance of things in themselves. The fundamental unsoundness and resulting

5. ibid.

6. op. cit. p. 78.

instability of such a position, according to Professor Strong, is best revealed in the emergence of the above-mentioned two later "isms", which attempted to find a more solid basis of truth within phenomenalism's assertions, but instead flounder only in further increasing difficulty. Scepticism, for example, in attempting to reach a sounder level of explanation in phenomenism, pushes further the issue and bone of contention raised in phenomenism about ideas and their relation to things and asserts the very non-identity between the representations and the original objects, thus making it possible to doubt the latter with almost negative assurance. Agnosticism then finishes with the positive assurance that the real objects can never be really known in their very essence. Under closer re-examination the only real truth to the phenomenistic position could then have been that the representations are merely the first means or instruments of acquaintance by which real objects begin to initiate the act of knowledge within us - it is really during the stage of instinctive tension, reaction, or consciousness, in which they are known at all. ⁷

Thus, the broad outlines of Professor Strong's general program for a fundamentally sound epistemological position then appear in the following steps:

7. ibid.

(1) the representations do result as effects within us from the active causes of the original objects; without these latter, there would be no such representations or sensations

(2) the visions, or representations, are only first attained by the knower in his orientation, turning-toward, or initial reference, regard, or view to the object(s) - AS IF they were really there existing independently of us

(3) this orientation heightens in intensity to the abruptly precipitated response or reaction of the organism to the open and bald fact that the object or objects are REALLY there: or in equivalent terms - they are consciously known.⁸

Thus, "consciousness is one part of knowledge, it is not the whole. It is in essence a transitive function, and to suppress its transitive nature is to deny the independent existence of objects, and the possibility of knowing them."⁹ Action produces Appearances, and Appearances, Reality.

In this way, Professor Strong accredits the true value of the contributions of Hume and Kantian philosophy to the birth of this new principle, instinctive confidence, or simply the modern theory of will. Hume's phenomenalism, in which the representations of experience concerning objects are knowledge, produced the radical Scepticism which led

8. ibid.

9. ibid.

Kant to disavow the real knowability of external objects (agnosticism); this, in turn, led to the reasonableness and worth of the present theory that knowledge is only initially experience, for true knowledge or consciousness takes place only in the experienced: what is reacted to upon the representations. Animation is the basic mechanism of consciousness.¹⁰

Indeed, so impressed is Professor Strong with this explanation and interpretation of consciousness, that he recommends that it form the basis of the definition of the science of psychology itself. "The science of the data of consciousness" should be the proper object of psychology. This would, according to him, properly replace the older definition which states that psychology is "the science of psychic states."¹¹ Under critical examination, Professor Strong analyzes the first definition into two possible interpretations for the sake of accurate understanding: (1) "that these data have consciousness given in and with them as a distinguishable element", or (2) "that they are given to a consciousness other than they, which itself may or may not be capable of being given."¹² The first interpretation seems to regard the data and consciousness as distinct

10. op. cit. p. 79

11. cf. The Origin of Consciousness, p. 88.

12. ibid.

entities, which, in Professor Strong's view of the matter, is erroneous, for, as has already been seen, consciousness is an integral part of the data themselves, being formally the motor action whereby the data are real. Thus, it can be seen that such an interpretation would merely resurrect the older definition of psychology which had to do with the investigation of psychic states, and this he regards as one of the bad legacies of phenomenism in psychology.

The real subject matter of psychology is data, and these are the essences of physical objects as-reached-to by the organism. The subject matter of physics is all that is prior to this reaction - the so-called "anoetic" phases of knowledge; the correct manner of dealing with these objects is the task of logic; psychology alone deals with the real data themselves.¹³

The psychic states themselves, which are the capacities for the data to be given or givenness themselves, are not known, with the data, but are only laterly known, since 'to know' is one thing, and the fact that knowledge has genuinely taken place - the 'to be known' is quite another thing, as we have already seen.¹⁴ Thus, the second older definition, properly interpreted or re-understood, merely

13. op. cit. p. 89.

14. op. cit. pp. 90-91; also see our previous analysis in Chapter II, Sect. C, p.44, and Sect. D, p. 49.

adds to the later one; psychology investigating psychic states can only do so as data of internal perception, while the usual data is that of external perception; hence, both definitions mutually complement one another and psychic states are never really known as psychic states until they become data of internal perception in introspection. The genuine definition of psychology is then ultimately "the science of the data of consciousness."

Therefore, on the basis of this established definition of psychology, we may again the more clearly delineate the specific province of its investigations in comparison to the other sciences. Physics, at least physiological physics, will concern itself with the so-called 'brain-event' in perception: this represents the 'anoetic' phase of cognition and is based on the fact that the sentient organism (whether man or brute) is continuous with an environment. Looking at perception in this biological light indicates that the initial stages of the act of cognition must be bound up with the transforming character of its own receptive subjectivity. "For if perception ends in and reveals only the object, it starts from the organism and reveals the object only from that point of view; it has a terminus a quo and not merely a terminus ad quem, being like an arrow shot from a bow. To ignore the organism, on the ground that it is only another object like that which is

perceived, is really to ignore not simply the organism but the fact that consciousness is connected with it; in other words, to suppress one half of the facts about the function investigated." ¹⁵

It is then upon this basis that we first realize the fundamental possibility, and very prevalent actuality, of the distinction between appearance and reality. Although it is true that what we know in sense-perception is the thing: mineral, plant, animal, or another man, the perfection of knowledge is not gained until we adjust our relations to them. "We do not need to adjust our relations to mere qualities, and it is consequently not these in their abstractness that perception makes us aware of. It is not the striped yellow of the tiger's coat, but the beast with (possibly unseen) claws and teeth and capable of using them to our undoing, that we perceive even solely through vision." ¹⁶ Such sense-perception cannot be, therefore, an intuition, for "perception, physically considered, proceeds not only from the body to the object but from the object to the body." ¹⁷ In its initial stages the intimations of cognition are not what are known. The act of knowledge attaining real objects goes deeper: it reaches to the "inner substance" of the last and ultimate brain

15. op. cit. pp. 8-9.

16. ibid.

17. op. cit. p. 10.

event of the initial stages just mentioned, wherein the subject proceeds to the object (the reaction, or motor-response). "Nature, doubtless, would have given us a faculty of intuition if she could; but she had to content herself with utilizing, for the construction of external perceptions, that resident sensibility, that psychic substance, which she found at least in organized bodies. And this is why perception is subjectively conditioned, and involves a distinction between phenomena and things in themselves, instead of being immediately intuitive." 18

Psychology, therefore, must at the direction of Epistemology deal with the data of consciousness (the essence of objects, things, culminating in motor responses), while physics (physiological) deals with the physical object becoming an essence, i.e. the details of the brain event, and Logic deals with essences or simple natures (objects) with a view to their mutual well ordering - ultimately to that function of the mind called reasoning. Such are the proper objects of these three branches of knowledge, according to Professor Strong.

Once having seen what Professor Strong believes to be the nature of psychology and its proper object in comparison to the other sciences closely connected with it - Logic and Physics - it now remains to enter into the deeper consideration of what he spoke of before as the "inner

18. ibid.

substance" of cognition, which has hitherto been signalized in the various provocative phrases of reaction, motor-response, or simply the transitive action of consciousness. Viewed psychologically (according to Strong) what is it, unstripped of its various roles to the other aspects of cognition - the thing, the object, the essence, the psychic state, the datum, etc? Professor Strong answers in the following manner:

"We must first recall our distinction between the function of consciousness or awareness and the psychic existence of which it is a function...I used to think of consciousness in the prevalent way, as constituting the substance of the mind, but I now see that something which I should call feeling or sentience - and which is none other than mind-stuff - constitutes the substance of the mind, and that consciousness is only its function." 19

The psychic state, or the existent responsive capacity for the datum (which in its larger meaning is intellect), corresponds then to a psychic existence whose function it is to react or adjust, and its very nature is designated as nothing else than a "mind-stuff". But to push our investigations further: what is "mind-stuff"?

To answer this, we must immediately go to Professor Strong's explanation of the relation between mind and body itself, for it is from here that the function of adjustment (consciousness) stems.

In explaining himself, he proposes the three traditional theories in the history of philosophy, to which by way of

19. op. cit. p. 11.

fruitful contrast he adds his own as a fourth. First, there is the theory of inter-actionism which maintained that the mind and the brain act upon each other; secondly, there is parallelism, denying this, and holding that brain-events and mental states simply flow along side by side; thirdly, there is the "conscious automaton" theory, holding that the mental states are in all cases effects of the brain-events, upon which they never react in their turn. Fourthly, there is Professor Strong's theory, in which the latter relation is reversed and which holds that the mental states,

"instead of being the effects, are the causes of the brain-events - or, to speak exactly, the causes of the brain-events being perceived, and themselves the existences (or an integral part of, an 'extract' from, the existences) that appear to the senses under that form." ²⁰

Thus, he concludes that at the basis of consciousness there is only psychic existence, the stuff of mind itself, or simply, "mind-stuff", and since the psychical and the physical are but two aspects of the same reality, according to the law of psycho-physical correlation, the ultimate nature of consciousness is the activity of matter which has been pressed into becoming cognitive because of the necessity of making a successful adjustment to the environment in which its gradual more specialized structure of development took place: the structure of cognition followed

20. op. cit. p. 3.

the more advanced and complex functional developments of matter.

And so, we not only have here a psychological theory which is an avowed "panpsychism", but we also have the first class beginnings of a position which has justified its claim to be "evolutionary" in character. Professor Strong then through his epistemological analysis becomes an evolutionary psychologist, panpsychical, and in the last analysis, a monist.²¹

The evolutionary basis for his psychology appears more fundamental when we examine the characteristics which he attributes to "mind-stuff". First, in its nature, mind-stuff is not necessarily psychic in the sense of being intelligent, cognitive, voluntary, or even conscious; it has that certain quality out of which all these attributes can come about - if need be. Second, in its distribution, mind-stuff is plural; it has parts with relations between them, since a visual sensation, for example, or a complicated thought evidently contain many simultaneous details and inter-relations. Psychologists, however, as yet have dealt with one of these relations - extensity, for in a visual sensation, though it is not the space of the object given by means of that sensation, it is yet presumably the space of the real object reductively, practically, i.e. in terms

21. op. cit. pp. 12-13; also pp. 28-29.

of the functional adjustment.

Thus, mind-stuff is in general mid-way between mind and matter by being so conceived that it becomes the real principle for the foundation of an evolutionary psychology, which is the ultimate aim of Professor Strong in his work; the detailed forces by which this specifically took place, however, he regards as the future task of the experimental sciences to discover.

Section B. Free Will

After noting the general tenor of thought in modern physics to be that of determinism, Professor Strong feels it necessary to treat the topic of free will in this contemporaneous light. He observes, however, that the ordinary knowledge of the plain man revolts against such an implication that his free will is just a label for our present ignorance of the true forces which are at work inevitably shaping our daily destiny. Does modern science demand that we be nothing else than prisoners of matter?²³

Evidently, there must be some misunderstandings about the two points on both sides. On the one hand, we have the individual, possessed of a personal ego, which is his concrete self as a whole; more specifically, his nervous system, their centers, and in the last analysis, his spinal

22. op. cit. p. 24.

23. cf. A Creed for Sceptics, pp. 79-80.

cord. All these components determine his action: must it be purely physical and inevitable determination; in a word, a fate? On the other hand, in Professor Strong's theory, it is purely instinct which breaks through the appearances into the reality, and this is the radix of the personal ego; is it subject to a rigid determinism, or is it free? As Professor Strong presents the facts, we must rule in favor of the latter alternative. But how?²⁴

The first fact which forces itself upon us at this narrow focus of the question is undoubtedly that of liberty. The second fact which increases the drift of the solution towards liberty again is the personal awareness of the efficacy and power of the individual ego. One does react on his own part to sensation-forces, and this is not merely the brain, as some would have it, but it is the whole person, soul, consciousness, or its radix - the action in reaction, which responds to the real. In a phrase, it is the "conscious soul", the whole individual who knows, acts, or wills under the form of phantasms, which agitate and stir the person to activity.²⁵

The third very important fact is that the "I" which both knows and wills is actual: it is not past, but in the present. The past states of the "I" have no influence on what the "I" does in the present, no bearing at all on what

24. ibid.

25. op. cit. pp. 80-81.

it desires in the present; the past has only historical significance, not existential significance. The "I" then has full liberty over what it wills and does. In this ability, it can deliberate, and choose in the face of its instincts and ideas of the moment of its action; only in this sense is it not free, for it cannot act without ideas and instincts: it is not free from them.²⁶

Now deliberation implies that we have a well defined nature at each moment. But "no individual has a nature exactly similar to that of another."²⁷ One person's instincts are stronger than the next person's; his thoughts will even describe a greater variety, even to infinity, in comparison to the next man's - according to the experiences he has had and the capacity of feeling and thinking.²⁸

But the basic points stand out, withal, that we are both free in our thought and willing. However, of what ought one to think and will in liberty of thought and action?

One imagines that self-reflection and the object of thought and action are instantaneous and co-existent with one another. But the fourth fact, which Professor Strong ushers forth, reveals this as the fundamental illusion

26. ibid.

27. ibid.

28. ibid.

regarding liberty and is the turning point in the whole explanation of his position on liberty. "The ego cannot be an object of self-knowledge at the moment when it acts."²⁹ If it were otherwise, it would be dominated, constrained, and determined by the characteristics of the object and its own capacities. Being such-and-such, and the action such-and-such, it would not be free. Consciousness then is only retrospective of itself - never introspective. It is impossible to know oneself and will, or act, at the same time; it is always the past ego which is known in primary memory, never the present one. The nature of man can never become a fact external to himself to occupy his own attention at one and the same time, for it is already himself, his very own essence which surely cannot be other than himself.³⁰

But does this view preserve and install freedom, which Professor Strong calls at this point "indeterminism?"³¹

The answer for him is, yes: through a characteristic which he sees fit to recognize in nature called "chance" - not in the sense that it would contradict and form an exception to causality, which Professor Strong believes to be a universal principle, but in the sense of a "contingency."³² He goes on to explain that the energies forming the universe

29. op. cit. p. 82.

30. ibid.

31. ibid.

32. ibid.

are at any one instant distributed arbitrarily.³³ They cannot be predicted in our knowledge; we do not know at any one moment, for example, where in terms of distance certain men will be, whether it will rain tomorrow, or be good weather. All these are contingencies, i.e. "contacts, produced through the fusion of energies from point to point in the universe and which converge at certain points."³⁴ Furthermore, "each new moment is a moment of newness. Nature is the empire of the unproven, of the arbitrary."³⁵ As he points out:

"La connaissant si peu, nous ne pouvons pas prévoir ce qui arrivera à la terre dans les siècles à venir, peut-être par l'irruption d'un astre comme celui qu'on imagine avoir donné naissance au système solaire. Par ailleurs, nous ne pouvons pas savoir quelles influences, venant de l'infiniment petit ou d'en dehors de nous, agiront peut-être sur nos centres nerveux de manière à modifier nos décisions. J'espère que mes amis indéterministes seront contents de cet élément d'arbitraire, qui les délivrera de la nécessité de supposer que leur choix est déterminé uniquement et irrémédiablement par la constitution présente de leur propre nature."³⁶

33. op. cit. p. 83.

34. ibid.

35. ibid.

36. ibid. "Knowing so little, we cannot foresee what will happen to the earth in the centuries to come, perhaps through the eruption of a star like the one which one imagines to have given birth to the solar system. Similarly, we cannot know what influences, coming from the infinitely small or from outside us, perhaps will act on our nerve centers in a way to modify our decisions. I hope that my indeterminist friends will be happy over this arbitrary element, which delivers them from the necessity of supposing that their choice is uniquely and irremediably determined through the present constitution of their proper nature."

Freedom, therefore, is chance, and chance is contingency. Nature is indifferent to both good and evil. How could one suppose that each blow of the wind, each surge of a wave, takes on purpose? For as he continues to point out:

"La nature n'est pas éveillée comme nous; elle est endormie, et tout ce qu'on peut dire, c'est qu'elle contient bien cette puissance. Elle n'est pas morte, mais vivante. Et nous sommes ses enfants, chair de sa chair, héritiers de sa vie, de sa variété, de son ordre mathématique; mais des enfants devenus adultes, et dont c'est la tâche de régler eux-mêmes leur vies selon les données de la conscience. Voilà que notre théorie explique même le devoir." 37

This doctrine of freedom then is but one special case of the rigid rule of universal causation and is not a view which justifies weakness, but rather strengthens character, according to Professor Strong. Using an illustration from familiar facts, he points out that the criticism of such a view of freedom as leading to a stand of compulsory activity on the part of men would be as foolish as a bird which is not content to fly high or low, north, south, east, or west, but would think its liberty decreased if it could not fly past the air. Causality is the great challenge of life! 38

37. ibid.: "Nature cannot be awakened as we; she is asleep, and all that one can say, is that she certainly contains the power. She is not dead, but living. And we are her children, flesh of her flesh, inheritors of her life, of her variety, of her mathematical order; but some children have become adults, for whom it is the task to regulate their own lives according to the dictates of conscience. That is how our theory explains moral obligations."

38. op. cit. p. 84.

In developing this doctrine of freedom, Professor Strong quotes verbatim a dialogue of Voltaire in the hope that one might not mistake what he means by contingency being freedom and the current ignorance of physical science about certain facts. His doctrine of freedom is not negative, a subjective ignorance of the objective causes totally determining action, but positive - in one word, unpredictability. Rather than quote the entire dialogue verbatim with a running commentary, we shall sum up the substance of its teaching as relevant to his present views on liberty. Prefacing the actual quotation, however, he does summarize his basic objective, and this is very illuminating:

"What is good in this dialogue is, that it shows so forcibly that a man regards himself as free when he does what is led by his instincts to do: in other words, that the freedom of which we have a sense is not indetermination, but is the absence of compulsion from without. Freedom may be defined as unhindered efficacy of willing; and that is what we mean when we say, I am free to lift my arm." 39

The dialogue itself takes place between two persons, called A and B, in which, during the course of the discussion the details concerning the exact nature of freedom gradually unfold. At the outset, it is generally agreed on by both that anyone who claims to be free must admit that he is still confronted by what is exactly opposite to such an attribute - the imposing necessity of circumstances;

39. op. cit. p. 85; the dialogue is part of Voltaire's Dictionnaire Philosophique.

a free man simply cannot escape the ever-present forces of internal and external circumstances engulfing his purportedly "free nature." Against this situation, the problem emerges as to how to reconcile the nature of human freedom, here taken to mean "the power you have as a separate person to do what your will demands with absolute necessity,"⁴⁰ with the demands of reality, over which a free man does not have deliberate control. It would seem, at first sight, that this internal spontaneous self-determination or motion, called freedom, can only consist in the ability to maneuver oneself into convenient and suitable relationships with the necessity of the onrushing events of sensible experience; so, for example, a man can move from the range of a cannon about to be fired upon him, or for that matter the dog can will to run if he sees a rabbit.

But if this be so, it becomes further agreed that man, then, is as free as the beasts. The general point, therefore, which Professor Strong has in mind by citing this dialogue, thus reveals itself conclusively to be that the difference between man and the purely sentient organism (or brute animal) on the score of freedom is only one of degree, that is in quality and quantity; the difference is accidental, and not such that the one has it (man), and

40. op. cit. p. 86.

the other does not (animal): both possess it in a gradual scale of ascending and descending degrees, such that a man has a mind directed to reasoning with a great many metaphysical ideas, while the brute has only a few complex ideas; therefore, the man is many more times freer than the brute, for he has "a thousand times his (the brute) power to think." ⁴¹

The dialogue then continues to discuss the reason and necessity for the coming into view before the mind of one idea rather than another - which idea will ultimately lead to action on the part of the will. In any one decision, there seem to be at least two distinguishable alternatives - to do, or not to do; to will, or not to will; the apparent possibility of taking a stand of indifference for one side or the other, "I will neither the one thing nor the other", ⁴² is dismissed mutually by both as meaningless and inconceivable, for there is no will without a reason, even when there is deliberately set up no reason - for this itself serves as a sort of reason. Consequently, there is mutual agreement further that willing must have reason, otherwise there would manifestly be an effect without a cause.

At this apparent mutual agreement, the issue further extends as to what is this reason: to what does it owe its origin? Why does one idea come before the mind rather than

41. ibid.

42. op. cit. p. 87.

another?

It is at this point that the specific nature of Professor Strong's view of freedom has the opportunity to show itself within the matrix of this dialogue of Voltaire quoted by him. Why, for instance, at gaming does one choose evens rather than odds? The only answer seems to be "that the idea of even has presented itself to your mind, rather than the contrary idea."⁴³ Therefore, we are to understand that the reason for the emergence of one idea rather than another before the mind for the will to act upon is due to chance, and is thus most assuredly a free process, but it must be clearly understood that the will is necessarily (not freely) directed to this form of activity and no other, for "your will is not free, but your acts are. You are free to act when you have the power to act."⁴⁴

Professor Strong, after subscribing to the fundamental teaching of Voltaire's dialogue, does, however, object to the way Voltaire rejects "freedom of indifference" as an absurd expression found in books resulting from the stupidity of their authors. For Strong maintains that the expression, "freedom of indifference", cannot be entirely devoid of some significance, for it may occur, as he points out,

"When we are simultaneously solicited by two instincts

43. ibid.

44. ibid.

of equal strength, or when we cannot for the life of us see which of two courses to take. But this freedom is the freedom of the penny to fall heads or tails. Not thus should a man wish to be made free. He should wish to be made free by having true ideas of the consequences of his acts, right ideas of good and evil."⁴⁵

Thus, according to Professor Strong, "freedom of indifference" can be given another meaning consistent with his own doctrine on freedom, which will not be as absurd as the signification which Voltaire attaches to the expression and proceeds to reject. For although "freedom of indifference" could in fact occur, Strong regards it as denoting a lack of vision and insight on the subject's part from not trying to look beyond the two courses of action to the possible values which one would have over the other; it would be like a piece of iron, which was midway between the two forces of magnets placed at equal distances from it, not exercising its internal source of movement (if it could have one) to stir, fall, and rise to the challenge of one of the magnet's reality of opportunity rather than the other.

Following this dialogue, Professor Strong sets down a poem composed by him, the last two lines of which characterize what he believes to be the idea of the fatalist or determinist:

"Yet what a brave man tears from you
You cannot take again."⁴⁶

45. ibid.

46. op. cit. p. 89.

This is to say that the only hope and joy of one who denies free will is that the fates cannot take or give again (good or bad: the pleasurable or the painful) what a man originally got from something he had to do as necessarily determined by his nature and circumstances. But if this be what a man personally acquires in the line of fate and which fate itself has not the power to remove (for the past cannot be changed - even by fate itself!), then he argues why not have the fatalist reach over to his position where all is determined and **necessitated** on the part of the will, but all is not determined, but free, on the part of the chance inter-play and gradual emergence of one idea, rather than another, leading to will action. Fatalism then becomes freedom without thereby really losing any of its cherished tenets, for this is what it is basically trying to mean anyway, from Professor Strong's point of view.

CHAPTER V

THE ULTIMATE DESTINY OF MAN

After apologizing for his bold strokes into the philosophical realm and his humble results, Professor Strong next begins to give us an appraisal of what he considers to be the proper and general effect of his philosophic views on morals and religion, and the purpose of man and mankind in general. However, he warns us that we are not to take a purely philosophic view of these matters, but rather a scientifically philosophic view, since it is Professor Strong's basic contention that a sound philosophy must receive its data of origin and points of departure from the sources of experimental science. There must be "an agreed scientific philosophy;" "the probable knowledge" of both spheres must culminate in a satisfying rational supplement to human curiosity.¹

In proposing his views on morality, Professor Strong begins by affirming that in his opinion we should at the outset keep in mind two points: that "the universe as a whole is morally indifferent"² and that it is self-sufficient as well. At first sight, then, it would seem that human morals have no foundation or basis, that there is no

1. cf. A Creed for Sceptics, p. 90.

2. op. cit. p. 91.

universally valid and objective difference between good and evil; yet Professor Strong assures us that this difference between good and evil is fixed and unchangeable, despite the indifference of Nature, and his position will substantiate this. Secondly, he observes that there is "no reason to think that the universe was created or came into existence at a moment of past time."³ He affirms that only the continuity of matter in existence, constantly reproducing itself, is the sensibly experienced fact; creation is a fairy tale unless it comes to this. The universe always existed and always will exist with everlasting motion. "Logicians tell us that there is no fallacy in the conception of infinite past and infinite future time. It is only amazing to the uninstructed mind. It baffles us because of our habitual assumption that everything had a beginning; but every beginning known to us had antecedents that produced."⁴ The same view, he affirms, must hold for space; the world or universe is boundless in space - for is it not true that all ~~we~~ we have ever experienced of space was continuous? The infinity of space is as reasonable as its infinite divisibility.

In summary, nature is radically indifferent and self-sufficient, and the existence of an extra-mundane being is without foundation.

3. ibid.

4. ibid.

However, the one important feature and leading characteristic of the universe is its "unity"; there is a sort of synthesizing principle that holds the plurality of its objects together. In fact, so impressed by this centralizing principle of unity may we become, that we may even attribute it to the causal production of a superior spiritual being. That is, we may be impelled to adopt the traditional view of Theism - but this would be an abnormal and exaggerated hypostasization of this principle of unity from its natural habitat and proper place, Nature itself.⁵ As he goes on to explain:

"The existence of the universe is an ultimate fact, of which there is and can be no explanation, because the universe is not derived from anything else but is self-sufficient. The same is true, it seems to me, of its order: this does not require an explanation, because it is not derived from any source *distinct* from the universe itself. It is simply an ultimate fact which must be accepted."⁶

Consequently, both the existence of the universe as well as its unity must be flatly accepted as matters of fact. And if we carry our analysis further, we shall be forced to see that not only is unity and order a very ultimate part of the plurality of objects making up the universe itself, but also that this very unity and order, which is so evidently factual, is nothing else than "a multiplicity

5. op. cit. p. 92.

6. ibid.

of conspiring and conflicting forces." ⁷ The so-called order of the universe is not really distinct from its plain multiplicity,

"as time owes its continuity to the action by which the earlier produces the later, so the continuity of space lies in the interaction of neighboring forces. All connexion between things is actional. Or, to express the same idea otherwise, there is no unity, but only continuity." ⁸

Thus, to illustrate: if we are confronted with two existent beings bearing upon one another, they come before the mind in a unitary datum because of the brain event culminating in a motor response. The knowledge so-reached is real and true of the reality, since the reality of the interaction between the two existents has been reacted to in the cognitive, conscious act of the mind itself in the datum. "Relations, then, do not exist in Nature; but infinitesimal parts-connexions-junctions between adjacents in space and time - do exist, or rather happen as modes of action." ⁹ In support of this idea he quotes Heraclitus with approval in holding that "strife is the father of all things." The objects of the universe are distributed in arrangements of differing energies, and in encountering one another' s forces pulsate in energy-gaps which produce space or matter. This process, of course, all takes place

7. ibid.

8. ibid.

9. op. cit. p. 93.

by chance.

And so, at the root of Nature and the universe are existents acting in a chance-like fashion converging on

"groupings having self-perpetuating forms - the atom, plant and animal organisms. The form is not active, but describes the mode of activity of the parts arranged in it. When chance leads to sense-organs, brains, and muscles, it overpasses itself and becomes conscious vision and purpose." ¹⁰

Clearly, then, the universe is not initially and primordially a cognitive, spiritual, or conscious being; it is, at the least, alive. Consciousness only arises from sensory states or brain events precipitating motor-responses directing the organism to a real object in knowledge; this obviously occurs only in animal organisms, and not with the universe itself. Furthermore, Professor Strong observes that consciousness has been unduly emphasized in philosophy, for it can only occur under certain (evolutionary) conditions, and its overrated importance in philosophy has been due to anthropomorphism. ¹¹

A further proof that the universe is not a spiritual being is the sense experience of events themselves in their very process:

"The wind blows and the waves dash without a reason. Let a man note what happens through the years - earthquakes, floods, pestilence, wars - and ask himself whether it is conceivable that a world in which such things are possible was created by or proceeded from a mind: he

10. ibid.

11. ibid.

must in honesty answer, No. Let him ask the same question regarding specific human ills. Insanity - how can goodness or intelligence have produced that cruellest and most debasing of inflictions? The different forms of disease, the innumerable varieties of insects in tropical forests, the sea, which covers far more of the earth's surface than the land, the stars that are so beautiful to look at but so devastating to think of, the vast desolation of interstellar space - all prove that the universe was not made for man or by a being like a man, but is what it is, an ever burning fire. --- The excuse that evil serves a moral purpose, though in fact it sometimes does, is a subterfuge; refuted by the disproportion and maladaptation of the means to the end. It is futile to reflect how we would alter the scheme of things if we had the power; we lose ourselves at once in vagueness. We are products of just such a world as this, and should be out of our element in any other." ¹²

Professor Strong, however, assures us that all is not lost in the face of this pessimistic picture. There is a place for some optimism, even happiness, for life above all is still basically worth living - if not for the very reason that we are living it. This point alone plus the continued cultural development of the human race in making the world a better place to live in outweighs the possible ills which may befall us. We then have an unlimited power within us both of avoiding and bearing these evil confrontations, and gradually we may look forward to a heaven on earth wherein brutality and its variations shall have been stamped out among men. ¹³ Thus, the savior of mankind is mankind himself.

12. op. cit. pp. 93-94.

13. ibid.

But what then must we specifically think of human nature, its morals and destiny? To answer this question, let us retrace our steps to the door of Professor Strong's solution. Consciousness, or mind is not at the base of Nature, for both the evils in the universe and the chance-like actions of the parts, which only under special conditions produce consciousness in beings (or animal organisms), evidently preclude such a type of being from being anyway at all the root of the whole process. The unity of the universe is nothing else than the fundamental identity between its actions and its parts, which is better expressed by the word, "continuity", which even reaches to knowledge itself, for it is that part of the datum called motor-response which makes knowledge to be knowledge, and ~~this~~ is reductively reaction, or at least action too - the very unifying characteristic in the cognitive process. Thus, the universe at roots basis in uncreated, unproduced, self-sufficient - always existing in space, time and motion. It is fundamentally featureless, devoid of mind, intelligence, or directive determination, having not even the effect imprinted on it of an external cause, such as a God. And so, we reach Professor Strong's original observation, that "the universe as a whole is morally indifferent."

What, then, is the real explanation for the morality and destiny of human nature? Certainly, in view of the

"natural wildness" which is at the core of Nature and therefore of human nature, we cannot attribute an intrinsic and objective fixity to the natures of men individually or in general and be fair to the realities as we have seen them. We must rather trace these fixed and so-called unchanging norms of human morals more to "social tradition and custom", which in a free community factually suffer constant violation and subsequent reflective revision, precisely because it is a free community. It is, therefore, the freedom of the individuals in the community to which we must address ourselves, if we are to find the source for morality. But what then is this kind of freedom? Professor Strong states it as follows:

"It is that of being able to do what we like, if we are not prevented. Moral freedom is of the same kind as political freedom. Such freedom is entirely consistent with determination by the past; and possible, because each person, besides being caused, is a cause, and a more or less adaptable one according to the range of his ideas, which can determine the future. To put it otherwise, though everything is fated, a man himself is a portion of fate, and the most important portion in what concerns himself. Blessed be causation, which by being universal ensures that our wills should have gratification. That their character at each moment is determined partly by heredity and partly by the influences that have acted on us, need not distress us. -- Freedom to choose exposes us to the necessity of accepting the consequences of our acts. Here causation in Nature comes nearest to the recognition of a difference between good and evil, to a judgment on the **transgressor** and a reward to him who does well. Let it be duly recorded that, in passing judgment upon human acts, Nature holds the scales with the strictest impartiality." ¹⁴

14. op. cit. p. 95.

Freedom, then, consists in doing what you want, subject to all the influences of the past and present, which inevitably and fatefully lead to future action. In this rhythm of universal causation, an individual man must eke out his moral life and practical existence dynamically by responsibly accepting the consequences of his acts, in terms of rewards and punishments, which must always be just because of the strict indifference or impartiality of Nature itself. The only taste of freedom he may really enjoy is the contingent, chance-like series of these events, which describe a joyous variety to him, much like would be genuinely the case if he were really free to act or not act, for this would give rise to a real variety of decisions.

The distinction between good and bad is unchangeably fixed because the human will to be happy and not suffer is unalterably fixed. It is clear that it is bad for the individual to eat or drink in a way that would undermine the health, to avoid disease, to seek bodily well-being. Socially, a man is judged to be good who contributes to our happiness, while he is bad if he makes us suffer; in this relationship, there is reciprocity - by doing good to others they in turn become good to us. Consciousness, knowledge, and perception have not led us to this conclusion but rather evolution, for it is in such a way that the descent from cruelty and the ascent to kindness and sympathy necessarily produced life in society. Men are thus impelled to mediate,

weigh, and balance their conflicts with other men and objectify their differences; and if the supply of worldly goods were adequate this tendency toward conflict and the instinct to fight would be held in check, for this is the reason for conflict in most cases. Instinct then is the foundation for morals, the need to conform to impulses which are fundamental to our organism, such as to care for one's children, to be just to one's fellowmen, etc. Remorse of conscience is when the evidence of our conscience reveals to us that we have not so conformed to these deepest tendencies in human nature. There is, therefore,

"an objective basis for morals in the fixed and unalterable character of the human will. It matters not that Nature is indifferent to the difference between good and evil, if human nature insists on recognizing it. The fixity of human will supplies a standard as valid and changeless as could be desired. --- Once this standard is recognized, by men advancing in comfort and intelligence, conformity to it becomes the object of moral culture. Conscience - the awareness how far one has conformed - becomes the guide of the inner life. Goodness in action is seen to be as imperative as truthfulness in thought!" 15

However, in accepting Professor Strong's rulings on conscience, we must remember that this does not occur in the traditional sense, as it appears. One must remember that for him "the ego is not a possible object of observation at the moment it wills. That is, we cannot, as is sometimes assumed, with disturbing results to morals, watch ourselves act." 16 Consequently, there is no self-conscious reflection

15. op. cit. pp. 96-97.

16. cf. The Origin of Consciousness, p.184.

in moral decisions; we never know whether we have done good or bad presently, but only afterwards.

In summary, therefore, the moral position of Professor Strong reaches from the argued indifference of Nature, with all its self-sufficiency, unity, and order, suffused in chance, up to human nature in its wildness with the power and action of human will or freedom: it is here, in this faculty, if we can call it such, that the purpose, motivation, and end to be happy lies, and not in human nature as such, that is as an objective essence. The customs and traditions of society, which are fixed for a time find their true source in the function of individual freedom of will to be perfectly happy, and they are but signs of this fundamental moral reality. But this power is but one aspect of the pattern of universal causation and is really determined through the concreteness of circumstances (of environment and heredity) in which a man's acts take place. However, a man must accept the true consequences of his actions in any case as coming from the unbiased and indifferent Nature itself. Instincts which lie at the base of our deepest tendencies are the norms to which our conscience must conform for its feeling of satisfaction, and lacking such conformity we must perforce feel remorse, contrition, and humility. The present stage of the evolutionary process among men has made this necessary for social life today, and to ignore these values is equivalent to ignoring the complex aspects

of our nature which our state of development has currently attained and forced upon us. Thus, to suppress morality is to ignore our real selves. But we must remember, too, that we never know right or wrong in a present decision, but only as an object of internal perception in a later act.

CHAPTER VI.

THE DIFFICULTIES AND CONTRADICTIONS IN STRONG'S PHILOSOPHY

Section A. Strong's Method, Problem, and Principle

As we have seen above, it was originally the doctrine of Panpsychism which led Professor Strong to the evolution and development of his Critical Realism. Starting with the view that there is a necessary correspondence between the mind and the physical data which reveal it to sense perception, he commits himself to a fundamental identity between the mind and the body. And since there is at least an apparent difference then between mind and body, as has been taught traditionally in the history of philosophic thought, especially so since the time of Descartes in the modern period in the form of an extreme dualism, Professor Strong finds it necessary to make a parallel distinction in the philosophic explanation of knowledge, epistemology, with principles of the mind, the datum, and the object. No longer can the mind be in direct touch with the object which it knows, for this can only produce essence-appearances, the principal one being the dualism between mind and body which traditional philosophy upholds. There is, therefore, according to Professor Strong, a genuine necessity for introducing a third element, the datum, which will

serve as a critical and discriminating fulcrum in the assurance of the truth and accuracy that the cognitive act itself has turned on a real object, or truly known reality itself. The transition then from a monistic panpsychism to a critical realism is, therefore, clearly a passage from a psychological analysis to an ultimate epistemological position and problem, to which he devoted the greater part of his life in giving a detailed solution. The conclusion to his psychological analysis is, however, not reached without a method, and this we recall is the so-called "Physical Method", or the law of psychophysical correlation. Stated in briefest terms it runs as follows: mental activities never occur without physical functions, and the latter are always intimately and parallelly associated, or recognizably "correlated" with the former. Hence, the realities of mind and body at the basis of this evidently parallel series must be admittedly identical: the reason seemingly being in substance, that they operate together, they can be correlated together; so, they are really one, as two sides of the same knife. But is such a conclusion really warranted? Let us re-examine the proposed instances which are offered as evidence to support this final assertion. We are told that we must find cases of mental functions taking place without physical, bodily, material counterparts, if we are to accept the doctrine of non-identity between mind and

body. And Professor Strong's observations come to the point that there are none; feelings and emotions are intimately bound up with bodily changes, to feel well or ill depends on our bodily condition, say whether we are well-fed or hungry; stimulants and soporifics physically modifying our constitution produce mental acuteness or dullness. Therefore, since mental and bodily processes operate and co-operate with one another, the fact is that they are one.¹

For our part, we wonder whether the principle of this argumentation is not only basically sound, but whether it is consistent with Professor Strong's own ideas, thoughts, and principles. Let us recall a passage which he offers in criticism of the issue between idealism and materialism on whether material things can exist independently of our knowledge and perceptions of them. In his view, the whole issue turns on the difference between "distinct" and "independent." As he points out, "two things are said to be 'distinct' when one has a different essence from the other; they are said to be 'independent' when one can exist without the other."² And it is clear from his analysis that he is speaking of a real distinction, for he further affirms that the essence known and the essence of the object are the same; consequently, different essences mean a real distinction. His criticism of Idealism, in which "esse est

1. cf. supra, Chap. 1, Section A, pp. 17-20.

2. cf. The Origin of Consciousness, p. 13.

percipi", is based on this stand - that

"the essence given does not represent, but (where cognition is correct, that is to say) the essence of the object; the essences are not two but one. Idealists... must abandon their doctrine. The being of things is not to be perceived; things can exist, and do exist in countless numbers, without being perceived." ³

Consequently, the existences of an object or essence are always independent, physical in the nature of things and cognitive in the knower, while in true knowledge the essences are identical, and in false knowledge, really distinct. The point then which Professor Strong allows is the vast difference between what is "distinct" and "what is independent." It would seem that according to the dictates of the "physical method" we are to look for cases in which the mental operations exist in isolation from the physical functions to escape the conclusion that mind and body are not identical. Yet all the instances cited indicate none. The "physical method", therefore, can only indicate that there is no independence between the mind and body in its functions; it seems powerless to impose an essential identity between them, or an indistinction.

Consequently, Professor Strong really has no right to argue from the operations of the organism to an identity between its essential principles, mind and body, but only to an identity of existence, wherein the organism itself must be an existential unity. The fact that feelings and

3. ibid.

perceptions cannot take place without parallel bodily changes only argues to the fact that the mind and body cannot exist without one another in these operations, not that they are the same in essence.

Neither the body nor the mind or soul can be said to be the individual organism, so that if together they do not form one nature or essence, the individual organism itself ceases to be. The paradox is well expressed in William de Morgan's epigram:

'John has a soul'. Upon the whole
The tombstone lies which says 'Hic jacet'.
But if John really has a soul,
What in the world is John who has it?

And so, we cannot agree with the mechanical view of life which regards the living organism as nothing else than the sum-total of the physico-chemical forces of which the body is constituted. Nor can we regard the soul as some sort of energy-producing forces(s), distinct, independent, and additional to the physico-chemical powers already present in the organism. Rather, the soul must be looked upon as a directing, co-ordinating, unifying principle of the entire organism, which enables it to act immanently as a whole, and is not on its own part, therefore, a being or an existence in its own right. The soul then does not add to the energy and operation of a living organism but is in reality

a specifying directive principle. To resort to a homely analogy, the soul is to the body as the ability of a man is to a pile of stones: it would take him as much energy to pile them in a disorderly fashion as well as an orderly fashion. The soul then is not joined to the body by means of an operation, not even a special one, and it would be futile to look for one. However, since it is natively designed to be joined to a body, it belongs to the material order, for it is essentially involved with and in matter which it intrinsically informs. But, in itself it is not identical with matter, nor can it have the essential properties of matter predicated directly of it, although it acts in space and time and is the directive source of physico-chemical operations.⁴

Furthermore, the very empiricism which the physical

4. In Aris. De an. II, 2, 414a14: St. Thos. lect. 4, 271, etc; also, C.G. II, 57; S.Th. I, 75, 4; 76, 1. From the point of view of its essence, the human soul is independent from matter, or immaterial in the strict sense, i.e. spiritual, while it is dependent upon matter in its operations (intrinsically so for the sentient and vegetal operations, while only extrinsically so for the spiritual operations of thinking and willing.) The soul of the brute, in contrast, is dependent upon matter in its essence, or material, since it cannot exist without a body, and also for its operation. However, from the viewpoint of its substantiality, i.e. the manner in which it holds its existence, we must admit that the human soul is an incomplete substance by reason of the species only, since it needs the body to make the complete substance, man, but it is still a complete substance by reason of its substantiality, for it genuinely subsists, or is spiritual.

method forces upon us contradicts itself. For Strong, there can be no knowledge beyond sense experience; the demands and limits of the physical method prevent any of our knowledge from ever reaching the field of the suprasensible or immaterial, even negatively. But does not this view contain the seeds of its own self-destruction in its very proposal? To say that there is no knowledge beyond sense knowledge, is itself a statement which pretends to be valid and true for a domain which is itself beyond sense knowledge of the merely sensible world. Consequently, to say that there is no knowledge beyond sense experience is knowledge itself which is already beyond sense experience. Certainly, if there were no knowledge beyond sense experience, we could not know there is not, for we would not have the capacity to realize it.⁵ Thus, there is adequate ground for holding to the traditional distinction between sense knowledge, which is of particulars and contingents, and intellectual knowledge, which is devoid of such characters and is rather independent of time and space. The

5. cf. Smith, Gerard, S.J., Natural Theology, Macmillan, N.Y., 1951, O.68: "if there be no knowledge which transcends experience, we cannot know there is not, because to know there is no such experience is knowledge which itself transcends experience. How indeed can one know, with knowledge which is on the level of experience, that there is no knowledge beyond experience if that knowledge, viz., that there is no knowledge beyond experience, is itself beyond experience? Aristotle had solemn fun with the nonsense which entertains strong notions about the unknowable" (Aris., Met.III, 3, 1005b6-1006a28).

"physical method" of Professor Strong, therefore, recoils in contradiction upon itself, and demands that we respect the real distinction between mind and body. Certainly, if two realities can be indistinct, but independent, as he admits, what prevents them from being dependent, but distinct?

The object of the intellect is being, and although it is the being of sensible things that we primarily know, the intellect is not restricted in itself to a knowledge of these things only. This is amply illustrated by the consideration of being itself. Being, as such, can have no limits for it is the nature of a limit to prevent a reality from being any more of what it is; now, if such a limit were applied to being, it would not indeed restrict it, but rather, as it were, increase it, for the supposed limit is a reality, and whatever is a reality pertains to being. Consequently, we must admit the unlimited value of the mind's object, being, so that it can know anything which exists or can exist, in a word, anything which has the characteristic of existibility.⁶ The intellect has no limit as to what it can know objectively, although it is certainly subjectively limited in itself, since it is a power of an obviously finite being. What our minds know are primarily sensible beings, and these are limited, but this de facto condition does not prevent the intellect from knowing both

6. cf. De Raeymaeker, Louis, The Philosophy of Being, trans. by E.H.Ziegelmeyer, B. Herder, 1954, p. 102.

material and immaterial things in an immaterial way. Therefore, we should not reduce the mind to a sense faculty in any sense, even to a higher difference in degree, but rather admit that there is a radically essential difference, a difference in kind, between the mind and the senses, fundamentally traceable to a real distinction between the soul and body itself.

Next, we come to a reconsideration of Professor Strong's principle, the theory of will. According to this theory, it is only in the response of the organism to the existent object that the physiological processes involved in the act of cognition, the so-called brain-events, become assured of truth. The cat sees its victim as the result of the motor activity in the eye organs and knows that the victim is really there (that its knowledge has reached the object in truth) in the act of springing into bodily contact with the victim. During this process of knowing there has been an association of ideas in the imagination in which the stored reactional instinctive values interplay until one predominates over the others - all of which reach their truth in the animal's crouching, or act of springing, or the anticipation just before the culmination of the act in the bodily contact with the victim.

All these stages take place under the descriptive titles of anticipation, deliberation, adjustment, and consent; these

describe the very life process of the organism itself and are but manifestations and phases of the fundamental force of will, or instinct.⁷

Here, in the proposal and explanation of this will-principle, we reach the basic confusion of realities in Professor Strong's philosophic views. It is the mistaken identity of cognition with appetite. It would seem that for Professor Strong the truth of cognition can only be assured or verified through an appetitive response. Let us try to see how this is so.

Traditionally, the knowledge relationship is conceived to take place between an object and a subject, wherein the object stands for anything which can be known, and the subject stands for the capacity, potency, power, or faculty of knowing. The conformity between the knower and the thing known, wherein the object dominates, measures, and specifies the knower, produces true knowledge, while dis-
conformity, falsity.⁸

For Professor Strong, however, the situation of the knowledge relationship must go far deeper to substantiate its claims. We must resort to what is called the "modern theory of Will" or instinct. It is not the object-subject relationship which adequately accounts for knowledge, but rather a radical and open voluntarism. According to

7. cf. *supra*, Chap. I, Sect. C, pp. 23-26.

8. cf. A Creed for Sceptics, pp. 20-21.

Professor Strong, there is too loose a relation between the object and the subject in the traditional view of the cognitive relationship to ensure true and certain knowledge, for one can never tell when errors and hallucinations might be taking place; consequently, the essence of the object in the knowing subject can never, on the grounds of the traditional view of the cognitive relation, be really known to be in conformity with the essence of the real object itself. But whether there is conformity or not, acts of knowledge do exist apart from the existences of their objects, and the thesis of pure Idealism which shifts the explanation of the meaning of the object in the act of knowledge to the knowing subject or mind itself must be rejected.

The knowing subject absolutely requires some determination or anchorage in the object for assurance that its knowledge is true and real. This, according to Professor Strong, is to be found in the instinctive trust of consciousness which bypasses the object-subject relationship and guarantees in its interpretative functionality to subject-object that things are really there, that there has occurred a real and true conformity between the known and the knower.

Consciousness is this reaction, the motor-response of the mind. The data of consciousness point to the existence of real things through its functionality. The brain pro-

cesses or nervous responses are purportedly non-cognitive prior to the reaction of the organism, and the sense-datum is an apparent thing believed to be real as such, because of the motor-response answering to the muscular feelings. Objects in themselves are basically material, limited, pluralized, while objects as really known through the datum refer to them as objects in the given-essences in a simplifying manner; for example, the microscopic openings in a surface are not known, but only a smooth surface is felt: the action, or re-action, involved in knowledge makes the object not only known to be real, but also unifies it, i.e. makes it a real essence, an object of discrimination, for essence, after all, is according to the classical definition, "that through which a thing is what it is", which in itself is the reason why one thing is distinguished and distinguishable from another.

The "modern theory of will" then clearly goes back to instinct for the explanation of true and certain knowledge. The object-subject relation in knowledge is assured by the inevitably infallible subject-object response. Certain sights, sounds, odors, etc., prompt organisms to spontaneous acts, while others are indifferent - as when the chick pecks at a grain of corn or the snake **strikes** at its prey. The instinctive stimulus arouses the perception, and movement automatically follows: these are already lower sense acts

of will. Imagination anticipates the instinctive object and its movement - this produces a tendency for the movement before the actual occasion arises. With the play of ideas, inhibitions arise, so that an arising instinctive object may fail to evoke its act because of the known connection with objects which appeal to or violate other instincts. Here deliberation (decision) arises amidst the pressure of conflicting ideas (through inhibitions). One is victorious, since the inhibitions of the others have been removed: this is consent. This discharges into action: thus, the truth of knowledge is attained, and the truth of knowledge itself is the relation of an idea to an interest, i.e. a practical attitude, while a concept is nothing else than the conscious reaction (behavior) of the total organism to an object.

From all this it can be readily seen then that it is the subject-object relationship which is the crowning point of cognition for Professor Strong; all else is preparation and is as material for its formal imposition. Yet this is to be understood in no idealistic sense, but rather in a voluntaristic sense, for what we know are extra-mental, trans-subjective, real objects.

However, the very relevant and pertinent question which arises is: what really determines or specifies the kind of action, or rather reaction, of the total organism

to an object (whether internal, or external; environmental, or hereditary)? Granting the usual examples, the reaction of taking food indicates hunger, crying indicates to the person that he is sad, speaking indicates the truth of the knowledge of what one thinks, there must have been in all these and any other alleged instances prior to the reaction (not necessarily in time) a specifying factor, or final cause, to motivate the action.

Every action must have a purpose; every agent must act for an end. Action and purpose cannot be identified, else all actions would be the same, just as by analogy the different forms of matter cannot be identified with matter itself, else there would be no variations, no qualitative difference, indeed no pluralization in matter and material things themselves. Indeed, if an agent were not to act for an end, all effects would be indifferent to it, i.e. it would be pointed toward the production of one just as much as any other. This equal indifference would result in inevitable inaction. This being so, nothing would act, which is absurdly against the obvious and evident facts of sense experience. Consequently, we must admit that an agent, to be an agent, i.e. to be minimally intelligible, must act for an end.⁹ And since it admittedly so acts for an end, it thereby must not have it from itself (by identity), but its

9. St. Thom., C.G. III, 2.

very seeking it shows that it is really distinct from it. The purpose then of any action, or motivation itself, must be naturally prior to the action, although it is certainly manifested or revealed in its effect.¹⁰

Consequently, what authorizes us to say that the various brain or nervous processes (l.e. the general area for the traditional explanation of cognition, wherein the object-subject relationship is of cause to effect) is unknown and unknowable (or to use the terminology of Professor Strong, "anoetic") until the motor-response sets in, which is the side of appetition or love - the subject-object relationship? Indeed, to know this is so at all, is to know at least something about it;¹¹ it would seem that we should have to adopt momentarily the correspondence theory of truth to afford the luxury of this theory of voluntaristic truth, unfortunately illustrating which one is the basic one. Intelligent behavior presupposes concepts, it is not epistemologically identical with them; the appetite following sense representations in man and the animals is parallelly

10. op. cit. prologue. In Scholastic terminology, this amounts to saying that the end is naturally prior in the order of intention, but posterior in the order of execution.

11. Strong appears here to be open to the same criticism leveled against Kant by his successors: if we know "things in themselves" exist, this is already to know something about them. Applied to Professor Strong, the charge rephrased would be: how can he know **these** so-called "anoetic" phases of cognition?

not identical with the sense representations either; true knowledge must always precede action.

This entire issue has been clearly discussed and set forth before in the works of Aristotle and St. Thomas Aquinas. Without confusing the truth of their ideas with their authority, let us view their principles with those of Professor Strong, as we have understood them, and look for some fruitful comparisons.

As we have asserted, the modern theory of will seems to err in looking to the subject-object relationship for the determining and formal characteristic of truth in the preliminary object-subject relationship. Let us examine this more closely in the light of the doctrines of moderate realism of Aristotle and St. Thomas.

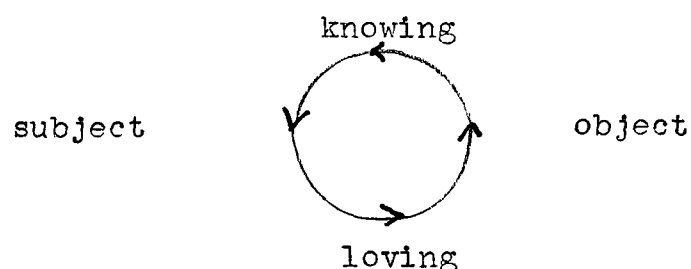
For Aristotle and St. Thomas, there is an important difference between the truth of the intellect and the good of the appetite or will. They find the difference in the explanation of their different formal objects.¹² The "true" is the terminus of cognition, just as the "good" is the

12. The formal object is the manner in which a thing presents itself for consideration; in contrast, the material object is the thing itself which is considered. It is the formal object which specifies scientific knowledge, not the material object, for there can be many sciences with the same material object, but different formal objects; for example, the earth's crust: Physics considers it as a body having mass and moving in a certain way, Geology considers it as a body having composition, structure, and stratification.

terminus of appetite. But there is this difference between them: the terminus of goodness is in the thing or object itself, while for truth it is in the mind, intellect, or soul itself, because "cognition is according as the thing known is in the one knowing, while appetite is according as the one desiring is inclined toward the thing desired." ¹³ This means that the "true" is the term of cognition or the culmination of knowledge, just as the "good" is the term of appetition or desire. Now each term or formal object differs, for the term of appetite is to be extrinsically conjoined with the object as it exists physically in itself in the nature of things, while the term of cognition or knowledge is for the likeness (similitudo) of the known to be in the knower, for cognition only exists and takes place according as the known is in the knower, i.e. objectively or representatively. Therefore, truth is primarily and essentially in things, for in knowing, the object comes to the subject, while in loving the subject goes to the object. In knowing, the object comes to the subject on the subject's own terms at the level of sense knowledge, this term is a sense representation, or say a phantasm, while at the level of intellectual knowledge, this term is concept somehow penetrating to the essence or very being of a thing. In loving, the subject goes to the object on the object's own

13. St. Thom., S.Th. I, 16, 1.

terms, i.e. to be physically conjoined to it as it exists in the nature of things. Hence, the "good" is only secondarily and qualifiedly in the appetite, and the "true" in similar fashion with regard to things. This opposite motion between knowledge and love may be represented in the form of a circle, as in the following diagram:¹⁴



14. In Aris. Met. VI, 4, 1027b25; II, 1, 993b30; Categ. 2, 14b21; St. Thom., De Ver. 1, 2. The term of sense knowledge, as far as the external senses are concerned, is the object itself, i.e. there is no expressed species or representative likeness needed, but only an impressed species or likeness by means of which the object is presented to the knower in these senses. In the realm of the internal senses (imagination, sense memory, estimative sense), such an expressed species or phantasm is required, with the exception of the common sense, since this only functions in the presence of objects existing in front of the external senses, while the other three internal senses can function without such existential presence being at hand. Similar to this, the term of intellectual knowledge is the concept, the VERBUM mentis, an expressed species of the intellectual order in which the object (the essence) is known. The conformity between the knower and the known (truth) is potentially so in the senses, imperfectly so in the simple apprehension of the intellect, but perfectly and explicitly given in the reflective act of intellectual judgment, wherein such conformity is outrightly discovered or realized to be so or not to be so.

Comparing this analysis to Professor Strong's position, it can readily be seen that what he is attempting to do is guarantee the conformity of the subject to the object (the traditional area of the cognitive relationship) by the reaction of the subject to the object, the appetitive response. Thus, knowledge has been confused with love, or is this wishful thinking? Instinct, will, love, rational faith, or simply appetite are surely signs of the presence of cognition, but they surely are not part of the essence of cognition itself, least of all its determining, deciding, specifying and formal characteristic. They are signs of cognition, but not cognition itself, for a sign always represents something other than itself to the knowing power. Consequently, the reality of cognition is deeper.

One of the ways in which we first recognize the presence of an animal, or an organism endowed with a sentient soul, is from its spontaneous motions in contrast to its reflex motions. For if the cause of these motions (the object) be considered physically, and not psychically, there is a lack of proportion between them. For example, when the master whistles for his dog, the dog hears the familiar sound and races toward his master, but on another occasion under similar circumstances (same master, whistle, dog), he may hear the sound and give an entirely different response. Further, the way the dog reacts to his master's whistle emanating from the side window of a house, for instance, by coming in

through a back entrance reveals not only that he has a sense memory, but also that he does not react in direct causal relation to the intensity of the physical impression. Thus, he shows that he has an awareness between the stimulus and the response-sensation, which follows symbolically an "S-A-R" pattern.¹⁵

Now, in reflex motions there is an accurate and adequate proportion between the physical impression and the resultant motion, as between the intensity of the light and the contraction of the pupil. Here, there is an "S-R" pattern only. Sensation, therefore, must proceed from an essentially superior perfection of principle in animals, which is above the mineral and vegetal perfections of their nature, for they are aware of a thing and act in their own way beyond the physical material impression. They respond to objects spontaneously, and not in a mechanically uniform and unvarying way. And so, from the diversity of action in the animal, we reason to a new type of subject - the animal endowed with a sentient soul. Appetition and locomotion then are signs of cognition, but they are not cognition itself.

Thus, we reach the conclusion that cognition, ontologically and psychologically looked at, does not permit appetition being part of its essence. It is true that the

15. In Aris. De An. II, 2, 413b2: St. Thom. lect. 3, 259. Here "S" stands for stimulus, "A" for awareness, and "R" for reaction.

elicited appetites reach satisfaction in the attainment of the existences of their objects, but this does not mean that the cognitive faculties which elicit these appetitive responses cannot for themselves reach and know existences as well. The appetitive responses are indeed signs and confirmations of what the cognitive faculties have known truly on their parts, but they cannot of themselves thereby replace them, or even truly substitute for them. They are closely connected, but really distinct. But if will **then** is not the veridical principle in cognition, what then is? Let us seek further guidance from the doctrines of Aristotle and St. Thomas.

If we make a careful comparison of the difference between a knowing subject and a non-knowing subject (as, a mineral, or plant), we shall find that the first difference appears in the fact that a knowing subject can become a form beyond its own form, while a non-knowing subject cannot; the latter is limited to its own form, while the former goes beyond its own form and can have the forms of **other** things as other, for what every agent communicates is its form, not its matter.¹⁶

Let us take an illustration from familiar facts. A non-knowing, nescient subject, or merely physical thing, receives the form with the same material disposition to the form as is present in the agent; therefore, it receives the

16. St. Thom. in Aris. De An. II, lect. 24.

form with matter, though it is not the same matter as in the agent. For example, in fire heating air, the air receives the form of heat with the same material disposition as in the fire, although it does not receive the wood or coal, the material fuel of the fire.¹⁷ And so, it is both materially and formally changed, and not formally only, as is the case with knowing subjects. In contrast, in knowing or cognitive subjects, the form of the agent or object is received without matter, and they are not changed in their physical being - in their own nature - upon the reception of the form, i.e. they remain formally knowing subjects. A nescient subject, however, receives its forms by the operation of some extrinsic agent acting efficiently on them, while cognitive subjects are made to know actually and formally through the activity of their own operation upon being actuated and specified by a particular object.¹⁸

All cognition is, therefore, brought about in the knowing subject through the notes, determinations, or forms of the

17. ibid.

18. As Dr. Ross observes, in Aristotle, p.136, sensation is an alteration which is "the advance of something towards itself and towards actuality", and "it is only if reception of form means awareness of form that it is a true description of perception." ---Cf. also J. Maritain, Reflexions sur l'intelligence, 1924, p.55: the intellect "only knows the object by becoming it, and this of itself and actively, in the final perfection of operative activity."

thing known. This is to say, that it is necessary that the object be definite and fixed, and not in a state of flux or change, and undetermined, otherwise we could never know it, for it would be changing while we grasp it: consequently, knowledge would have to be of the past - never, the present. We should have to say repeatedly: 'I knew' and not 'I know.' If we exclude all determination from an object, we can have no knowledge of it. The indeterminate or the potential, as such, is not directly knowable, since it is not specific. We only know the potential indirectly, i.e. what can be, by means of the act to which it is related. And so, only acts, determinations, or forms are knowable.¹⁹

A knowing subject, therefore, goes beyond its own form (by which it is 'such-and-such', say, an animal or a man) and comes to possess the forms of other things which it knows: briefly, it is in act to act. It has these forms as alien, as opposite to itself. It knows objects, i.e. it has them objectively. Hence, the definition of knowledge or cognition in general: to know is to become the other thing in its very otherness, i.e. to know it objectively as it is in the nature of things. In this way, Aristotle says that "the soul is in a sense (objectively) all things."²⁰ For

19. For a complete explanation of this aspect of knowledge see J. Gredt, De unione omnium maxima inter subjectum cognoscens et objectum cognitum, in Xenia Thomistica, Vol. I, pp. 303-318.

20. In Aris. De An. II, 8, 431b21.

example, the wax receives a given shape subjectively or potentially, so that it makes a third thing, the composite, while eyesight in receiving the shape or outline of an object does so purely objectively and actively, so that in receiving it, it is, paradoxically enough, the thing itself: it does not receive it as a potency only, purely passively, but as an active potency, an operation or act to a further act.²¹

Allowing this, we further observe that things so known exist in the knowing subject in a unique and peculiar manner - they are in the knowing subject intentionally: the same objects which are in the nature of things have a physical, natural existence (esse): in a word, their own existence there, while in the knowing subject they receive cognition, intentional, or psychic existence.²² In this way, the knower is extended or projected beyond itself to another (the object): it lives the object. Thus, knowledge **really** results from the very existence of the faculty of cognition assuming the form of the object. The existence of the faculty is one act (i.e. its operation), while the faculty itself and the form it receives are two other

21. St. Thom., Quodlib. VIII, 4.

22. Cf. Cajetan, Comm. in S. Th. I, 14, 1.

immaterial acts.²³

And so, the object which is known has two modes of existence: physical in the nature of things and psychical in the knowing subject. The object has physical existence, insofar as it is concretized by material or sensible accidents and individualized by its own existence. The animal by his senses receives the being under its sensible accidents, i.e. as individual and concrete. Hence, he knows forms or accidents of things without matter, but with the conditions of matter, time and space, along with the secondary accidental material characteristics of matter, for every sensation is of a concrete and definite quality, intensity, extensity, and duration. A rational animal (man), however, is able to dissolve the concretion, analyze, abstract, and draw forth the essences of things by distinguishing them from their accidents and purely physical existence in a highly immaterial or spiritual fashion, and thus come to know such objects as being, which is neither

23. St. Thom., De Ver. 10, 4. In the order of essence, the soul is a substance while its faculties are accidents, and hence accidental acts (determinations, etc.). In the order of operation, the knowing faculty is passive, but directed to being actuated, **determined**, or specified by the impressed species (**in actu primo**) and brought to the object in knowledge through the operation of the faculty (**in actu secundo**.)

necessarily material nor immaterial.²⁴

The general position of Materialism would seem to view cognition as entirely transient: the external object would act on the faculty, perfect, change it, and stamp a likeness of itself on the faculty which would be purely passive, much like in photography. In this way, knowledge would not be immanent, or a living act at all. And Professor Strong's position is much like this, for, as we have seen, he does regard consciousness as a transient or "vehicular" function in which the accuracy of the "essence-appearance" is ensured by the "motor-response of the mind." And if we are to bring in the general position of the Idealists, for the sake of clarity of comparison, we would note that cognition for them would be entirely immanent, the object referring to the faculty wholly extrinsically; on this view, the faculty will be entirely active in producing its object which is outside thought or sensation. We would, therefore, never at all know the objective-object, but only the subjective-object, or appearance - the reason seeming to be that whatever is beyond

24. St. Thom., C.G. II, 68: "Anima intellectualis dicitur esse quasi quidam horizon et confinium corporeorum et incorporeorum, inquantum est substantia incorporea, corporis tamen forma, Non autem minus est aliquid unum ex substantia intellectuali et materia corporali quam ex forma ignis et eius materia, sed forte magis: quia quanto forma magis vincit materiam, ex eas et materia efficitur magis unum."

knowledge is unknowable.²⁵

The position of Aristotle and St. Thomas reconciles both extremes, for on the one hand in Idealism the real object does not seem to be attained at all, even though the immanent and living character of knowledge is preserved, while on the other hand in Materialism the object is attained, but the immanent character of knowledge is lost. In the view of Aristotle and St. Thomas, the form, or immaterial principle of the being is what is knowable and makes cognition possible. This form is not the mechanical or material impression of the Materialists, nor is it of the knowing subject only - with the Idealists, but rather of the thing known, the object, so that it thrusts the act of knowledge beyond the knower or subject - to the real. Immateriality then is the principle of cognition.

In summary, therefore, it follows from the very nature of cognition that the precise essence of a knowing subject is to be able to have the forms of other things, as other, or be other things beyond their own form. For a knowing being does not merely have another form in the act of knowledge, but **the** form of the other thing; so, wax receives the form or seal of the thing as its own, while in the act of vision, for example, sight does not see the shape of sight

25. Cf. Selbie, The Psychology of Religion, 1924, p.54; also, Strong, The Origin of Consciousness, p.192, where he gives the same account of Idealism.

or the shaped sight, but the shape of the seal ring, as it is sealed or shaped. But to have another form beyond one's own form is to become fuller in nature, to enlarge, dilate, attain greater amplitude or extension. This can only come about through immateriality, for matter limits form as potency limits act - matter being the fundamental principle of imperfection, and form, of perfection. Consequently, the removal of matter allows its contrary form or act to emerge and the knowing subject becomes fuller or more perfect in that it can become a form beyond its own form. And so, in order to do this, it must be naturally adapted to receive the form immaterially, for whatever is received must be received after the manner of the receiver.²⁶

Therefore, in man and in the animals cognition is an act which by nature has objective content, an action by means of which a form is possessed immaterially - without the potentiality of matter, an immaterial operation enacted by a passive potency which has been actuated by a form or species which presents the object. It is not the will coming into existential collision with an object through a sense datum which makes the nature of knowledge, therefore, but the operation of a potency, which is made to know of its very essence, uniting with the object through the principle of immateriality.

26. In Aris. De An. II, 12, 424a32: St. Thom., 557; cf. lect. 5, 282, etc.; De Ver. II, 2.

Therefore, we must reject Professor Strong's initial position in its problem, method, and principle. His problem is to account for the epistemological relationship of mind, datum, and object, which grew out of the view that there is a basic identity between the psychological realities of soul and body themselves - panpsychism. This latter view in turn was reached and proposed because of his physical method which regards realities as non-identical when they are independent of one another or can exist separately. Consequently, since there is at least an apparent difference between mind and body, the appearance of an object to the mind must be guaranteed by a third source in the knowledge relationship, the datum of consciousness. This in turn is accounted for by the principle of the modern theory of will.

In reconsideration of Professor Strong's position, we have seen that he is laboring under a false problem, the supposed identity of mind and body, largely because of the erroneous demands of a "method" which is not only inaccurate in its application, but also untenable in its very formulation. Professor Strong admits the vast difference between realities that are distinct and independent, and yet in the application of his method proves only that they are not independent, and not that they are identical in essence. The physical method is untenable in its very formulation because it erroneously and contradictorily demands that all knowledge

not transcend sensory limits. We have seen further that, using Professor Strong's own observation on the difference between "distinction" and "independence" that the evidence offered on the obvious parallel between physical and mental functions argues only to a unity of existence between two essentially distinct principles, soul and body, and not to their total and full identity. If mental and physical functions always co-operate together, they must be identical. We admit this on the side of existence, but not on the side of essence. Their essences are really distinct, but not independent to make the total nature, or the source for the operations.²⁷ If there can be an identity or non-identity between two essences which will in no way prevent their independence in existence, it is certainly reasonable to admit that they can be dependent on one another for their existence, but really distinct from one another in essence.

Moreover, the principle or modern theory of will which is summoned forth to explain the epistemological worth of the datum is not only insufficient, but also gratuitous. It is insufficient because elicited appetite at the most can only be the sign of cognition, and the reality itself signified by the sign. Such a theory is moreover gratuitous because further investigation into Professor Strong's charges

27. The human soul is independent of the body in its existence: it subsists; in this sense its substantiality is complete, but since it needs the body to make the whole nature of man, its substantiality is incomplete.

as to the inadequacy of the traditional side of the cognitive, subject-object relationship reveals that it is really the principle of immateriality which explains cognition, not will.

With these critical observations in mind, we pass now to a consideration of the specific arguments which Professor Strong offers for the admission of a third principle, the datum, between the mind and its object in the mechanism or process of the act of knowledge itself.

Section B. The Duality between the Sense Datum and Real Thing

We have already seen that it is the principle of immateriality which makes cognition possible, and not the will theory of Professor Strong. It now remains to consider the "datum",²⁸ which he thinks is necessary to explain adequately the mechanism or process of the act of knowledge itself. For although we regard the will-principle of Professor Strong as untenable in explaining the fundamental basis of cognition, it will do no good to dismiss his position on the necessity of the "datum" from this alone, since the will-principle explains only a portion of the datum, consciousness. Consequently, we must examine the worth of the arguments themselves for the admission of the "datum" which provide a general alignment for his theory of knowledge.

Professor Strong's arguments for the proposed reality of

28. cf. supra, Chap. 2, Sect. B, pp. 33-37.

the "datum" are drawn from the supposed discrepancy between the kind of object or essence given in the contents of sense perception and the real object itself. He argues that it is not only possible, but also very much actual, that the character of the known sense-object be at variance with the trans-subjective object. The will-principle, as we have seen, purportedly establishes the true knowledge of the object which the datum points to, but it is with the reality of the datum itself with which we are presently concerned. Where the "reaction" connects with reality the contents or essence of the object and the object itself are indistinct, but where the "reaction" is abortive the datum and the object itself become distinct and independent. Now, it is in the latter event, that Professor Strong thinks the cases arise illustrating the necessity for the datum. Let us look at them in detail.²⁹

Firstly, we have instances wherein the real object and the known object differ as to time. As his analysis goes, the sensation of an object takes time to reach the brain to

29. Prof. Strong in A Creed ..., p. 50, admits that if it were not for these cases the datum and the object could be resolved in essence alone: "I have asked myself more than once whether the shadowy, phantasmal, purely mental nature of the datum did not make identity possible - the percipient mentally seeing the very thing itself. But such a view overlooks at least three facts: the normal error due to time-lag; also that due to distance, the increasing smallness; also the new qualities produced by confused perception."

be known, for it is only here that the knowledge takes place, not really in the senses. But he argues that just as it takes time to hear the train-whistle after we see the escape of steam, and we are not actually hearing the sound at the time it is elicited, so also the knowledge of the sense-object in reaching the brain, wherein it is first known, suffers a time-lag which makes our knowledge of the real time aspect of the thing other than it really is. The same situation holds also for him in the case of light from a long since non-existent star. Now, if we examine these situations more closely, we shall see that what he says is not true at all. What the external senses know is not the object as it is in itself, but only the object as it communicates itself directly or indirectly to the sense organ. Consequently, while the object is immediately and per se sensed in hearing in the basilar membrane of the ear, it is nevertheless truly more or less intense as a sense object communicated to the ear and fundamentally caused by the sounding body. The sense object of sound as communicated by the fundamental causality of the sounding body is, therefore, really on its part more or less intense according as the listener is more or less distant from it, or it is more or less distant from the listener. The reason for this objective difference in degrees is plain - the more or less remote the cause from the effect, the more or less perfect

will be the effect in perfection. Nothing happens without contact: the cause must in some way be present, or touch, the effect. The same explanation holds for a light from the star. What we immediately sense is a light in contact with the eye, and a light which is not merely given in a subjective time, but an objective time simultaneous to it as physical object and cause. What we see is the light shining at the time when we see it in our eye; its direction, distance, and origin, are other matters which can be ascertained by further sense experiences.

As far as the second case respecting number is concerned, pushing the eyeball out of shape clearly prevents it from normal functioning and could hardly be taken as a normal case for the regular admission of a datum. The same would also hold for "seeing yellow". Moreover, in such cases the object which is seen is in fact double or yellow owing to a disorder or derangement of the sense, but the judgment as to the nature of the external object is not a sensation, immediate and intuitive, but an inference which is liable to error. Consequently, the error is one of judgment.

The sense qualities then are all formally objective, and are genuinely trans-subjective in matter, form, and presence, for it is initially clear that our external senses are indeterminate; we cannot sense any object voluntarily,

although we can imagine an object at will. The senses are passive and their actuality and determination must be from without. So, sensation must be a direct intuition of something, an externally present existing object. Nothing can be reduced from potency to act except by a being already in act.

Accordingly, it appears in general that the organ of sensation must be in real contact simultaneously with the object apprehended in time and space, for the action of the object on the sense organ is really the same as sensation. Certainly, this is reasonable to propose, for if the brain were able to see just because of a physiological change, the eye, with the same sort of constitution, ought to be able to see as well. And this possibility becomes a compelling actuality when we realize that if sensation were not simultaneously in contact with the object temporarily and spatially, the time required, however small, for it to reach the first state of knowledge in the brain, would be enough for the very changeable and unstable object to be changed and not wholly be what it was, i.e. it would not really be present; we live in a changing world. Our life would be like the Mad Gardener of Lewis Carroll:

"He thought he saw a banker's clerk

Descending from a bus.

He looked again, and found it was

A hippopotamus". 30

Therefore, for the essential truth of sensation to be preserved, sensation must occur in the sense faculties immediately and not in the brain. It is true, however, that sensation is imperfect in itself and must be completed by the perceptions of the internal senses in the brain. Therefore, we should reserve the term "perception" for that part of our knowledge called internal experience, while "sensation" should be used for the external senses exclusively: it is only when we conceive the external senses to function like those of the internal senses that "perception" could be seriously applied to external sense experience, as with Professor Strong's position. But this will be treated later in connection with internal sensibility.

Furthermore, the cases quoted from Professor Strong on Page 36 of our work can equally well be answered. A straight stick appearing bent in the water, railway tracks appearing to converge, the size of an object varying according to its distance from seer can all be answered on the basis of the distinction between proper and common sensibles. Size and shape are not the proper formal objects of the faculty of

30. cf. Aris. De An. II, 5, 417b18. St. Thom., De Ver. I, 9, 11; also, Science in Synthesis, Kane, W.H., Corcoran, J.D., Ashley, B.M., Nogar, R.J., pp. 186-187, Dominican College of St. Thomas, River Forest, Ill., 1952. Also, see what we have said regarding the stability of the object, Chap. VI, p, 156.

vision, but rather the color of the thing as so colored.³¹ Common sensibles can be sensed by more than one external sense, such as size, shape, number, motion, and rest, while proper sensibles can be sensed by one sense alone. Consequently, for the correct knowledge of a common sensible object, all the senses should be applied which can attain it. Therefore, the intellect can always, at the time, or by later reflection attend to the possibility of erroneous interpretations in the face of the existing conditions.

The case with regard to the color-blind is similar: what they see is what they really do see - some see green for red, others only various shades of gray - but the error is one of judgment in inferring that the intra-organic object is the same as the extra-organic object.

As far as the argument for the "datum" taken from the science of Physics is concerned, we must observe that the physical and chemical determinations in sensation or bodily modifications effected in the organ are only the means by which the sensible species or representation is produced in the faculty. We admit, for example, that in the sensation of color there are wave vibrations in the ether acting on the retina and depicting there a photo-chemical likeness of itself; in sound, the extremities of the acoustic nerve are stimulated by vibrations in the air; in taste and smell, the

31. In *Aris. De An.* II, 6, 418a8: St. Thom. lect 13, 383, 386, 395.

respective nerves combine chemically with the substances themselves, while the resistance of bodies and the vibrations of heat mechanically excite the sense of touch. However, these are all material mutations, and do not directly touch the point that there is an immaterial mutation or production of a sensible form or species, by means of which the knower becomes the known. The sense qualities are active forms and energies inhering in bodies, and the vibrations, mechanical stimulations, etc., are not identical with these sensible qualities, but accompany them, or are more accurately speaking their mobile-quantified substrate. What is more,

"we learned of the existence of ether and air vibrations through the data given to the senses. Scientists established their theories of color and sound on facts furnished by sense knowledge. Hence, if these theories of science are true, they prove, if anything, that the senses are trustworthy sources of information about the extramental order." 32

But, if the object is not united with the knower in the essence-appearance through the datum, what then is it in the intrinsic constitution of the relation between the knowing subject and the known object which enables it to elicit the act of knowledge? In brief, what really explains the process of knowledge itself? The object and the subject must in some way be assimilated to one another, for like is only

32. Barron, Jos. T., Elements of Epistemology, Macmillan, 1941, p. 152.

known by like, and one thing cannot become one with another thing which is wholly different from it. Consequently, the subject, object, or both must undergo a change. It clearly cannot be the object, for things are in no way changed in themselves for their being known; so, it must be the subject.

Now the possible ways in which the knowing subject could be the known object are twofold: either through identity or through information. Let us examine these possibilities more closely.³³

Identity would imply that the cognitive potency or faculty were identical with all the objects which it can or does know. On this hypothesis, we would have a return to the ancient position of Empedocles, in that the "sentient soul is in a certain way composed of all sensible objects and things".³⁴ However, as St. Thomas comments, this would lead us to two impossible consequences (1) the senses could themselves be sensed, since they would be composed of the actual sensibles, or objects, and (2) the senses could sense without external sensible objects being present, since they themselves would be the actual sensibles. Also, on the score of intellectual

33. The doctrine expounded here regarding the process of cognition is taken from Fr. Jos. Gredt, O.S.B., in his Elementa Philosophiae Aristotelico-Thomisticae, Vol. I, Herder, 1937, pp. 363-367; cf. also Aris. De An. III, 4, 429a13: St. Thom. lect. 7, 675, etc.

34. St. Thom. in Aris. De An. II, lect. 10.

knowledge, if the human intellect were to know the object of its knowledge by identity, it would have to be actually all beings or be actually infinite, for the object of the intellect is being, or every object which exists or can exist. All of which is plainly absurd. Consequently, in general, it can be seen that if we are to understand a knowing subject, as a subject, i.e. a genuine capacity or potency for knowledge, and seriously keep to the reality that we are dealing with a limited, finite, faculty of cognition, we cannot maintain that it can unite with its object by identity, if not for the very evident reason that as a fundamental potency or capacity it is determined and limited to itself through its own entity. Hence, the general view of the Idealists, wherein knowledge would seem to take place by such an identity, would not account for the expansion effect necessarily entailed in the act of

cognition.³⁵

The only alternative then is some sort of information. This process would imply that the object be communicated to the subject from without, i.e. by some sort of extrinsic communication. But this could be direct (immediate) or indirect (mediate).

In a direct information, the object would immediately, through itself, inform the faculty. Now, in the case of the senses, this is obviously impossible, because the sensible object acts on the sense organ primarily by means of a material impression and then finally on the sense faculty itself, and, what is more, the sense object itself is a finite being, limiting its form exclusively to itself and

35. The only instances where some sort of identity makes cognition possible is in separated human souls, angels, and God Himself. Separated souls and angels, for example, know themselves without the impressed species by radical identity, for here **the object** is intelligible in itself, directly present to the subject, and spiritually proportionate or adequate to its manner of understanding or spiritual **intellection**. At this high level of being, the order of nature coincides with the order of intention, thus eliminating the need for an impressed species to present the object; however, an expressed species is required to represent themselves to themselves, since their essences, being creatures, are in potency to their existences, requiring an elevation in their act of self-knowledge; thus, immateriality, as the principle of cognition, means not only the removal of matter from the known object, but more profoundly, the removal of potentiality from the known object. In the case of God's knowledge of Himself, there is no trace of such potentiality at all, and hence He knows Himself through a strictly formal identity, for the Divine essence is specifically the Divine intellect.

not allowing it radically to be the form of another at all, leastwise of a sense faculty. The intellect, in similar fashion, cannot unite with its object by direct information, for again a finite form, as finite, is inexorably limited to the thing which it informs. Consequently, in general, a cognitive potency cannot unite with its object by direct information, for a finite form cannot physically migrate from one being to another, so that the act of one being could be simultaneously the act of another being physically and entitively; the form of a finite being is limited to its own existence and is essentially the form or act of this subject and not some other subject.

Consequently, the only reasonable alternative is that the process of knowledge takes place by indirect information, wherein the faculty is only potentially capable of knowing objects, and must be informed by actual likenesses or representations of them. Hence, the general view of the Materialists in which the object would seem to be physically present in the knower is unacceptable: knowledge cannot be reduced to a mere mechanical or material impression, but the object must be elevated to an immaterial state, for immateriality is the root and principle of cognition. This likeness then is the vicarious form of the object and is called in the Scholastic terminology of the Moderate Realism of Aristotle and St. Thomas, the "impressed species"

(species impressa); it is the "means by which" the faculty is formally determined and first constituted to knowing the object.

The position of Aristotle and St. Thomas takes the intermediate view in holding that a cognitive potency, as a potency is primarily passive (against the Idealists) and must be **acted** upon by an external object to become active (with the Materialists), but only by means of a representative likeness, or intentional species, through which the object achieves a new mode of existence in the knowing subject. Consequently, in referring to Professor Strong's position on the mechanism or process of knowledge itself, we are forced to abandon what he calls the "datum" and admit that the real treasure of knowledge is in the sphere of what he disparagingly refers to as the "essence-appearance" of the object. Under the reflective analysis of reason, we must admit that the representative likeness of the object, or the impressed species, is the object. As St. Thomas says, the species is, at the level of intellectual knowledge, "the likeness of the **very essence** and nature of a thing with regard to its intentional existence: not with regard to its natural existence, as it exists in things." Furthermore, "the sensible in act is the sense in act, and the intelligible in act is the intellect in act. For, the reason why we actually feel or know a thing is that our intellect or sense is actually

informed by the sensible or intelligible species".³⁶ The acts here referred to are not the species but the objects; consequently, the form received into the intellect is the same form according to its intelligible content (essence) outside the intellect, while in the case of the senses it is the accidental forms of the external appearing thing. In this way, before any "datum" or "motor response" of the sentient organism, the subject is the object - through an intervening likeness uniting the faculty with its object, i.e. an intentional, or impressed species.

This impressed likeness is then aptly called an "intentional species." And since the nature of a thing is determined by its form, the intentional species may be called the intentional form. It is called "intentional" to distinguish it from the substantial and accidental forms which determine things in their physical being. Furthermore, they are called "intentional" to show that they are essentially relative, and not absolute, enabling the knowing subject "to tend toward" (intendere) the object. And finally, in being called "species" the role in which it determines **the** kind of object known, or the particular thing cognized, is shown. Therefore, without the impressed species, produced simultaneously with the biological changes or material mutations in the organs which Professor Strong vaguely refers to in

36. St. Thom., S.Th. I, 14, 2.

the expression "brain-events" or the so-called "anoetic phases of cognition", no knowledge of finite things is possible.³⁷

In looking back over Professor Strong's position, then, on knowledge, we generally observe that in the first stages of knowledge it seems a strange view for a realistic philosopher to claim that we immediately perceive objects not as they are but as they are not.

Section C. Internal Perception and the Nature of the Self

As has already been seen in Sections C and D, Chapter II, of our analysis,³⁸ Professor Strong ultimately reaches the "self" by interpreting the data of internal perception, which latter sphere is reached through an analogy from his explanation and analysis of external perception, the sphere or field of primitive sensation. Just as there is in external perception a fundamental duality between the object of

37. Exceptions to this have already been noted, #35 for separated souls, angels, and God, wherein the problem of the finiteness or limitation of the known object (their own essence) by matter does not enter. A species is required, to be sure, for the knowledge of their own essence, but not one that is impressed, but only one that is expressed (except for God) to elevate the existential status of their essences from the sphere of potential intelligibility in the entitative line of being to that of actual intelligibility in their respective intellects. God, Whose essence is pure existence, needs no distinct species at all for His Divine intellect to know anything.

38. cf. supra, pp. 38-55.

perception (the essence-appearance) and the datum, so also in internal perception there is a duality between the object of perception (now, the datum of external perception) and the "state" in which the organism individually finds itself, i.e. its "feeling". The one difference, however, according to Strong, between internal and external perception is the fact that in the datum of an external perception the "motor-response" points outward, while in internal perception it points inward to the reality of a "feeling." So, when I hear a bell ringing in external perception and accordingly react to it (for this is for him necessary to know it), the fact that there was a "state" in me which carried the response is itself an essence-appearance, really up to this point unknown or anoetic, until I reacted inwardly to it as a "feeling", realizing the vibration within me: now it is truly objectified, now it is a datum of knowledge - but a datum of internal perception.

Now, before carrying our summary analysis of this portion of Professor Strong's theories further, we should agree that there is **adequate** ground for distinguishing between the cognition of the external senses and internal senses. But we should not be inclined to agree that the similarity between the two spheres or fields of knowledge is as he says it is. The feelings given in internal perception do not become truly real when reacted to inwardly; there is no recognizable duality between the object of internal perception and

its datum, which points to the reality of a feeling. We have already seen that there is no such duality in external perception; and so, there is not only for our part no basis for his analogical reference to internal perception, but also no evidence for his proposed explanation for the reality of feelings in the field of internal sensibility considered in itself.

If we make a careful comparison between internal and external sensibility, we shall find that the only legitimate similarity is that both spheres are fields of cognition in a sensory light: both kinds of sensibility give sense knowledge. Beyond this, there are some important differences. The external senses take their objects immediately and directly from the real world and not by means of other senses or faculties of cognition, while the internal senses take, accept, or receive their objects mediately or indirectly from one another or from the external senses. Thus, the cognition of internal sensibility elaborates further on what has already been cognitively experienced or apprehended from the real world. And so, the cognition of the external senses is of simple sensations, the primitive elements from which all human cognition arises, develops, and is ultimately based. The perception of internal sensibility unites the several sensations by means of "common or central sense", the "imagination" in turn perfects them in phantasms or

images for later repetition, or reproduction, while the "sense memory" revives them again with definite concrete reference to their past sensible occurrence, and the "estimative sense" characterizes their biological value to the specific nature of the organism.³⁹ In man, however, over and above the animals, the "intellect" intelligibly elaborates on these objects of perception in the knowledge of the "universal essence" by the process of abstraction - but we shall come to this later when we shall have the occasion to consider Professor Strong's view of the intellect.⁴⁰ But withal, "sensation" is reserved for the external senses, "perception" for the internal senses, and "conception" for the intellect; an object of knowledge can, therefore, be sensed, perceived, or thought.

The Scholastic position of Moderate Realism, following the tradition of Aristotle and St. Thomas, commonly divided then the functions of internal sensibility, or perception, into four "internal senses:" the common sense, imagination, memory, and estimative faculty.⁴¹ Now, the functions performed by the common sense would be those referring to what we would call today "sensitive or sentient consciousness", in which both man and the animals would be conscious of

39. cf. St. Thom., S. Th. I, 78, 4; also 2m.

40. cf. St. Thom., Q de An., a.13.

41. cf. Aris. De An. III, 2, 426b12; 3, 428b11; De Mem. et Rem. I, 451a15; St. Thom. in De An. II, lect. 13, 395.

their sensations, much like all the radii of a circle converge toward its center. In this way, the common sense would have for its proper object (a) the simultaneous perception of all the varied sense-objects given in the sensations of the external senses, e.g. of sight and touch, by which the subject is here-and-now affected (b) the integration or reference of all these sense qualities to one central sense image or phantasm of the same object (c) the discrimination or comparison between the various differences in the sense qualities so attained. Thus, the common sense seems to be a general internal sensitivity, perceiving also those appetitions of pleasure or pain which immediately follow the sensations of the external senses, for these are intimately connected with the character of the sensations themselves and pertain to them by way of inclination or aversion of the organism. Consequently, sensible pain and pleasure are not strictly sensations, but rather the results of sensations in the sense appetite which rests in, or is delighted with, an object revealed in sensation as agreeable, or flees the object as disagreeable.

Now, without going into the details concerning the rest of the internal senses, it can be seen that Professor Strong's position here overlooks the rich field of cognitive reality in internal sensibility, by restricting internal perception to a datum pointing to a feeling. To be sure,

feelings are the results of sensibility, but they do not in themselves make such sensibility specifically cognitive. Prior to feelings there are items of knowledge (phantasms) in the internal senses, already known, and which further lead to the well or ill feelings. But these feelings, pointed to in the data of being felt (for Professor Strong), do not make and constitute the cognition and knowledge of internal sensibility.⁴² It can be seen, therefore, that here again Professor Strong is resorting to the appetite as being the real key to cognition, which error we have already criticized.

However, assuming with Professor Strong that feelings become truly real when reacted to inwardly, we next consider what he further derives from this: that the reaction to an emotion destroys it; when we cannot have a motion, we betake ourselves to emotion, which then means that we are literally getting away from reality. For him, then, the traditional view of emotions, states, and feelings as being elicited by appropriate items of knowledge must be realigned. The emotions themselves are not really known, but are anoetic, until they are inwardly reacted to. And when they are so reacted to, they are broken, dispelled, and abandoned. All emotion is a frustration, waiting for a solid motion. For a mother to grieve for her dead son is

42. cf. Aris. De An. II, 3; 414b1: St. Thom., lect. 5, 288.

injurious to organic health; granted that the event presents the crying, it is only when she looks at the state of her own grief that she truly knows what is going on - and with it she stops crying, achieving, for Professor Strong, true balance. The traditional view holds that nothing is felt unless pre-known (*nihil volitum, nisi prae-cognitum*), but for Professor Strong, nothing is known unless it is first felt-to, reacted-to, responded-to. Consequently, we can immediately see why he regards emotions, at least in the traditional sense, not as the natural outgrowths of prior items of sense or intellectual knowledge, but as left-overs, so to speak, from our evolutionary past. The only probable original value to crying, for example, was to enable the organism to slip from its enemy's grasp; now, with our advanced development and the evolutionary construction of the mechanism of internal perception, all this can be, in our enlightened age, surmounted. We should as far as possible establish and cultivate the new order of "motion for emotion". We should then really "go, grow, and glow," for "you can do it, if you will!"

Now, we see no reason to depart from the traditional view of the emotions as we have explained it. The phenomenon of reacting to an emotion and dispelling it is merely a change from one eliciting object to another: hence, the variation in the feeling. Certainly to cry over the known

information of the loss of a loved one is one object of knowledge, while directing one's knowledge to the fact that one is sad, grieving, or crying, looked at isolatedly in itself, is another object of knowledge, which is certainly going to elicit a different reaction in the passions of the sense appetite. If one directs his attention and knowledge to what he is crying about and looks at the crying itself, albeit cognitively, he is certainly going to stop crying. Consequently, the traditional formula still holds: nothing is desired unless pre-known.

Professor Strong, however, continues to draw further implications from his views and accordingly proclaims that there are "no instantaneous feelings", and "no knowledge of a series of instants or a passage of time", unless the appropriate response on the part of the organism has been made, of course, to unify them operationally, and so, cognitively! Also, we are told that "to cognize" is one item of knowledge, while "to be cognized" is another item of knowledge - a datum pointing to the new realities of psychic states. And, lo and behold! they are there - as we have recounted on pp. 48-51 of Chapter II in our present work. And if we emphasize the latter sort of process, we shall have been, magically enough, introduced to the real self of ego. Prior to this orientation to ourself in these final data, the psychic states are radically plural, atomic,

serial, in their unknown nature, until we direct, turn, or react to them in data, in which case, we encounter a full-fledged unified ego - but this existence is not in the ego itself, but only of our turning or reacting to it, for there is a great difference between finding an existence which is already there and an existence which comes of our action of finding it itself. Thus, we indeliberately make the ego an existential unity in our motor-response of finding it.⁴³ The ego, then, is a changing thing having more historical than existential reality and is nothing else than the organism plus its present states as well as past states, as far as these can be or are remembered. Now, these states have a particular attribution: they are "psychic states", not the data of internal or external perception, but the data of an internal perception pointing to the ego or self as object. Intellection is the larger reservoir for these psychic states which opens the organism to value in reference to the past, present, and future: it is latent reactional value. In reacting to these psychic states, however, the data vesting them with functional truth closes their plurality into a unity, producing one self or ego.

Going back to Professor Strong's rejection of "instantaneous feelings", we observe that in order to ascertain

43. cf. A Creed..., p. 28: "But there is the greatest difference between things found that would have existed just as much as if they had not been found, and things that owe their existence solely to the finding of them."

whether this is really so, we must disengage the appetitive or emotional part of a feeling from its cognitive part. However, in so doing we unwittingly are doing something which is not consonant with Professor Strong's basic approach, i.e. that the organismic reaction determines knowledge. However, if we are to reach an accurate and true appraisal of instantaneous feelings, it seems that this is absolutely necessary, for it can be seen by this time in virtue of our criticism that it is not fair to the reality of cognition to confuse it constantly with appetition. Consequently, if we take the nature of a sensible feeling in its cognitive aspect, we must admit that there are such kinds of instantaneous feelings on the basis that immateriality is the principle of cognition, and not the appetitive tendency of will. Certainly, if we allow that knowledge can take place on the traditional side of the cognitive relationship, of object-subject, we must admit that it is not only entirely possible, but also a matter of admitting the actual occurrence of what happens, for a perception to take place in one or more of the internal senses simultaneously eliciting a particular kind of emotion or passion in the sense appetite. However, if we are to adopt the voluntaristic position of Professor Strong, wherein the subject-object relationship is held to, then, the perceptions of internal sensibility would have to await

the volitional response for true knowledge, and the feelings could not be instantaneous with their objects, but always verified subsequently. The decision then rests ultimately on which principle one relies on to explain cognition - immateriality or appetition. The same account would hold for the cognition of time; the passage of instants would be known in virtue of the internal sense memory, but if the appetitive response must be called in, then Professor Strong's view would seem to follow; however, if one allows immateriality as the sufficient principle to explain the traditional side of the cognitive relationship, then, the explanation would tend toward the traditional, Scholastic view, in terms of the internal sense memory.

We have seen that the deepest meaning which expresses the real essence of cognition is an action by which a faculty of cognition possesses another form immaterially - i.e. precisely as form. The knower does not receive the form materially, or as a potency, but immaterially as an act.⁴⁴ And

44. The impressed species or intentional form which is so received has a twofold esse, entitative and intentional, in virtue of its twofold union with the faculty. There belongs to it an entitative esse by reason of its nature as a real accident physically uniting with the faculty and forming a tertium quid with it, thus constituting a subjective, material union; an intentional esse, however, belongs to it inasmuch as it is by means of the species that the faculty knows the object: here there is an objective, immaterial union, making the cognitive act identical (intentionally) with reality itself. Cf. Maritain, J., The Degrees of Knowledge, London: Centenary Press, 1937, p. 142, no. 7.

this form may be the form of another, or of oneself, which, in the latter event, produces the reality of self-cognition. Now, we admit that such self-cognition is only characteristic of those forms which subsist immaterially, i.e. are not received into matter (spiritual), and have or possess themselves immaterially, or as forms as such, and we do not then assign this function to any of the sense faculties, whether internal or external. We affirm rather that this is due to the suprasensuous (not supernatural) power of a spiritual intellect,⁴⁵ which, of course, alienates us from Professor Strong completely, for this is not permissible by the limits of the so-called "physical method." The human intellect, as well as any intellect, is a faculty whose object is being, and this means that it is not just confined to the sphere of sensible objects or material phenomena for the contents of what it knows, or rather the man who has it who knows, for the human intellect, with the other faculties of human nature, is a power of a soul made to be joined to a body, the whole of which constitutes the ego, and not a peculiar sort of datum endowing equally peculiar tenuous

45. St. Thom., in De Causis, lect. 7: "Quod ad seipsum conversivum est, incorporeum..Nullum enim corporeum ad seipsum natum est converti. Si enim quod convertitur ad aliquid, copulatur illi ad quod convertitur, palam itaque quia et omnes partes corporis eius quod ad seipsum convertitur, ad omnes copulabantur: quod est impossibile in omnibus partibilibus propter partium separationem (distinctionem), aliis earum alibi iacentibus."

forms of subjectivity called psychic states with a pseudo-unity.

Consequently, if we remain in the sphere of sense knowledge alone, Professor Strong seems to be right in asserting that the ego can only be known the moment after. The senses are conscious, but never self-conscious, for no sense faculty can make a "reditio complete in seipsum", since it is a faculty intrinsically informing a material organ. A material paper sheet can fold over on itself in half, but never wholly over upon itself in its entirety, because of the inherent limits of quantity and extension.⁴⁶

How is the self, then, really an object of consciousness? It is a fact that we refer all our affections in reflex consciousness to some sort of permanent, abiding subject, for this subject or self cannot be merely considered as a series of acts. This is evident both in sensation and intellection. The external senses themselves reveal a knowing subject affected by their sensation in concomitant consciousness, and the common sense in (improper) reflex consciousness apprehends this subject even more so, while the sense memory, which is necessary to thought, knows this subject as permanent, for there must be one subject who priorly had a thought and now remembers it, i.e. a connecting link, otherwise memory of past thoughts, facts, and experiences would be impossible. However, it takes the action of the

46. cf. St. Thom., C.G. II, 66.

intellect in proper reflex consciousness to distinguish clearly between the permanent subject and its passing cognitive and appetitive affections. For it is clear that in any process of thought, in following out the details of an argument, through the major, the minor, premises to conclusion, there must be present a subject, one subject, a thinker to sustain and continue it, to give it unified consideration. What is more, if all our conscious life were a stream of acts, one act could not feel morally responsible for what another act had done - there must be a real subject capable of merit and demerit.⁴⁷

Consequently, we reach the existence of the mind, self, or ego by an immediate concrete and existential judgment: "I exist." At first, we do not have an actual and perfect knowledge of this, but only a confused, habitual, and imperfect knowledge in which we do not clearly distinguish the substance of the mind from its acts. But then by the actual reflection of the intellect on these acts, it seizes the act together with its root or principle, i.e. the mind

47. St. Thom. in Aris. De An. III, 4, lect. 9, 724; also, S.Th. I, 87, 3, 2m: "Alius est actus quo intellectus intelligit lapidem, et alius est actus quo intellectus se intelligere lapidem."

itself.⁴⁸ What is grasped here is not an act in the abstract, but in the concrete; "we know that we have this definite sensation, or thought about this object:" for a thing must exist in order to act. What is first reached here is of the existential order, not of the essential order.

Therefore, we reach the truth of the judgment, "I exist", starting with the concomitant consciousness of the external senses, thence to the improper reflection of the common sense and the intellect, wherein the latter faculty the full existential truth is affirmed by its own peculiar act of proper reflection. Thus, the ego **is** the indirect object of reflex consciousness.

What then are the intellect and the ego? In the light of our analysis, we find the intellect to be a spiritual, self-conscious faculty whose object is being, a power of the soul and body intrinsically united, which all together compose the ego. The proximate foundation for the ego is the intellect itself, while its remote foundation and subject are the soul and body united. The psychic states which

48. St. Thom., De Ver. X, 8: "Nullus autem percipit se intelligere nisi ex hoc quod aliquid intelligit; quia prius est intelligere aliquid quam intelligere se intelligere. Et ideo pervenit anima ad actualiter percipiendum se esse, per illud quod intelligit vel sentit. Sed quantum ad cognitionem habitualement, sic dico, quod anima per essentiam suam se videt, id est ex hoc ipso quod essentia sua est sibi praesens, est potens exire in actum cognitionis sui ipsius; sicut aliquis ex hoc quod habet alicuius scientiae habitum, ex ipsa praesentia habitus, est potens percipere illa quae subsunt illi habitui."

Professor Strong refers to upon closer examination appear in many instances to be nothing else than evidences for the fact that the sense faculties intimately inhere in bodily organs, which provide their acts with varying degrees of subjectivity, while in other instances they appear equally well to be susceptible of other very innocent explanations.

We have already seen that "immateriality is the principle of cognition." Now, not all cognitive faculties participate in the reality of cognition to the same degree: in fact some senses attain their objects in a more material way than others. For example, sight and hearing attain their objects in a less material way than smell, touch, and taste, for the former feel their objects without being directly aware of themselves as experiencing them, while the latter sense themselves as affected by these objects mingled with their own subjectivity in the process - and this is all fundamentally due, as we have just said, to the fact that the senses are faculties of material organs. Consequently, the education of the impressed species from the sense faculty may be more or less perfect owing to the accompanying change or material mutation in the sense organ. "In some senses, we find a spiritual mutation only, as in sight, while in others we find not only a spiritual but a natural mutation...Now, the sight...is the most spiritual, the most perfect, the most universal of all the senses. After this comes the hearing,

and then the **smell...** touch and taste are the most material of all." ⁴⁹ There is, therefore, a proportional ratio between the faculty and its mutation **or** organic change, which will affect the cognitive act of the faculty itself. Thus, in some instances we can by an effort of attention segregate the cognitive act from its object more or less distinctly, but the cognitive act is never in **isolation** from its object, for concomitant consciousness always reveals subject, act, and object concretely together.

Therefore, in the case of the **toothache**, we can always distinguish its meaning as a conscious state, act, or feeling from its object, a diseased physical or organic condition; this is also true of the sense of touch: the feeling of the change in the skin and the objective hardness of the object; the muscular sensations as acts are distinguished from their objects, the position of the limbs; also, the acts of tasting and smelling are always capable of being objectively distinguished from the objects which those acts attain. But withal, these acts, which are consciously

49. St.Thom., S. Th. I, 78, 3. St. Thomas uses "spiritual" here in the broad sense, meaning "immaterial", **inasmuch** as sight and hearing receive the impressed species or form, which is simply not matter, in a more objective or formal way than the lower senses; this is not the strict sense of "spiritual" as referring to the nature of the intellect, which implies independence in being from matter. Thus, "immaterial" and "spiritual" are **not** always interchangeable. Cf. Maritain, J., The Degrees of Knowledge, p.139.

perceptive objects, make us concomitantly aware not only of themselves, but also ourselves, and it is never justifiable to identify even concretely the self - or subject with them.

The visual after-image in the act of vision is another illustration of the influence of the bodily organs on the sense faculties, for this phenomenon merely brings out the point that the excellence or exuberance of a sensible object can in a way corrupt the organ when the limits of its disposition and state are exceeded. Thus, too bright a light will produce the results in vision which Professor Strong notes; the object appears to be imposed on all other objects seen, it moves with us, and fades from view on its own.⁵⁰ The sense faculties then are psycho-physical realities, and these acts are not the real explanation for the self.

Finally, when we consider the subjective character of perceptions and phantasms of the sense memory, and the auditory perceptions in the imagination associated with inner speech, and the so-called "general ideas" drawn from "particular ideas", we observe that these also, while being personal and subjective to the perceiver are by no means the same as the subject or perceiver itself, for they change, but the perceiver abides; they are subjective, but not the subject.

Professor Strong comes close to the real truth when he affirms that the psychic states are not the ego, but the

50. St. Thom. in Aris. De An. II, lects. 19, 24.

whole psychic existence. However, all these realities are atomic, anoetic, and disparate until the reaction process sets in which unifies them, and this we have observed is not enough. The intellect can properly reflect on itself and know that indirectly there is an abiding and ultimate subject as the foundation for itself as ego; reaction giving unity to psychic states in a so-called functional unitary **psychic** existence is not the true explanation.

As far as his account of the intellect is concerned, it seems to be a confusion of the real faculty of intellect with what St. Thomas calls "the estimative force", and which today is commonly referred to as "instinct." By this internal sense, an animal is able to know the harmful or useful character of sensible objects to himself, and so try to get them, or avoid them. This power is undoubtedly susceptible to educational influences, but it is by no means the same as the intellect which has a knowledge of the absolute and relative essences of things, as 'means-to-end', 'cause and effect'. In instinct, the means is fixed, while for the intellect, it is variable. And so, while in man the two faculties may interact, as do all the internal senses with the intellect, they ought not to be confused.⁵¹

51. St. Thom. in C.G. II, 82: "Non intelligunt (bruta) neque ratiocinantur. Quod ex hoc apparet, quia omnia animalia eiusdem speciei similitudo operantur, quasi a natura motae et non ex arte operantis: omnis enim hirundo similiter facit nidum, et omnis aranea similiter telam."

Section D. The Nature and Reality of the Data

As we have seen hereinbefore, Professor Strong ascribes the origin of the data to the self; it is the self which produces the characteristics of "simplicity" and "externality" of the data as "fictive presentments" of the real. These attributes are, according to him, undoubtedly due to the subjective constitution of the sentient organism, but are "harmless fictions" insofar as their one saving grace is to disclose the nature of the real in terms of the operational response. We wonder, however, what mysterious faculty, or explanation which is far from forthcoming on Professor Strong's part, suddenly steps in to convert what has been up to this point, radically subjective into a vivid opening up onto the real world. No such explanation is given and one such is certainly necessary, for even existential contact with the real demands some sort of "open-ness" on the part of the knower to explain it; yet, on Professor Strong's view, this is assumed without overt explanation; certainly if it is at least self-evident on his part, he should have designated it as such. But all remains subjective until the "motor-response", and this breaks forth into the so-called knowledge of the actually real. In brief, then, how does Professor Strong know the datum; by what faculty does he know the objective-real if the very characteristics of

the datum "simplicity" and "externality" are still subjective in their supposed realistic thrust. True, for Professor Strong there is no self-consciousness - and consequently no data which know themselves as data, so to speak, but even granting this for the sake of argument, how does the datum reach the objective-real, the extra-mental, the trans-subjective, if the very attribute of "externality" is a product of the self? This, in our opinion, illustrates the point that Professor Strong, in spite of his professed intention to be realistic in his epistemology, never really succeeds for this purpose. Therefore, we must regard his explanation for the origin of the data as untenable and inconsistent with his intended realistic approach.

Moreover, we fail to see what is gained by pointing out, as he does, the character of the datum as that which "depicts" the real object, but does not "represent" it. There is obviously here the well-intentioned purpose of attempting to avoid pseudo-representative realism, in which we infer the real object from the image, but there is no real explanation how the supposed datum would report the details or specific characteristics of the real object other than disclose the existential presence; no facilities, however, are provided for the knowledge of anything pertaining to its ultimately real essence, let alone a knowledge of how it can be at least superficially or accidentally differentiated from all other objects. Consequently, the data seem

to enable the knower to cognize as tenuous a reality as Professor Strong grants to them themselves in their nature as phantasms. The objects supposedly cognized by the data, therefore, seem to be as unsubstantial and inefficacious as the data themselves, and his entire apparatus of explanation seems then to fade into absolute unreality.

This last observation becomes especially pointed and crucial when we come to examine what Professor Strong regards as the "office" of the data: "to present substantial efficacious things." He regards "time and space" as the attributes which endow reality with substantiality, while "causation" refers to its efficacious character. Now, without entering into a criticism of his explanation of the nature of time and space themselves, which we shall do later in consideration of his cosmological views, we would note at this point, that it is entirely wrong to regard time and space as the characteristics of what is substantial in the nature of things. Therefore, without showing the insufficiencies of his explanation for how the subjective time and space of the datum reach the sphere of real time and space, for we have just already noted in the preceding paragraphs that his fundamental thesis on the radical subjectivity of the datum seems to preclude this, we would rather point out that it is more profoundly wrong to regard substantiality as adequately explicable in terms of time and space at all.

This is also true of his theory of causation, as we shall shortly see. But first, let us take them in order: (1) time and space as being the essential attributes of substance, and (2) causation.

It is true that time and space seem to be the first characteristics of the sensible-real insofar as time refers to the change and changeability of the sensible world and space refers to the fact that sensible objects occupy a proper place and location in reference to one another in virtue of their quantity; it is in this sense that we can say that every object of sense experience is contingent and particular; we live in a changing world of many and multiple physical objects, and the senses truly know singulars. However, particularity and changeability, or contingency, are merely the first intimations and beginnings, so to speak, in the order of our knowledge, of the later and profounder knowledge of the reality of substance. Objects are surely known first as being under time and space, but these latter characteristics surely do not constitute the intrinsic character of the substantiality of sensible objects themselves. Let us see how this is so.

Admittedly, reality does first present itself to the senses as particular and contingent, or briefly as a spatio-temporal continuum, but it is a further fact of general experience that the changes of place, quality and quantity are

not attributable to themselves, but rather attributed to "things that are placed", "things that are hot or cold", or "things that have a certain quantity." Thus, it is more ultimately and fundamentally evident that there is a more primary reality underlying these attributes, a reality which is, so to speak, a support to them, a reality which we genuinely deserve to call "substance". For all these qualities and attributes are only intelligible in terms of an ultimate subject which they determine, and, in turn, are supported by: in a word, a "being in itself", substance.⁵²

Accordingly, a blade of grass from spring to late summer changes in the accidental attributes of color, odor, size, shape, etc., but yet remains specifically and the same substance - grass. The child becomes an adult, yet the same individuality remains in spite of the continued modifications, such as his changing thoughts, volitions, desires, etc. Although all these changes are new determinations to the being, they do not fundamentally change the specific and individual perfection of the being itself; they are not of the basic essence of the substance itself, but come to it without its intrinsic change. And so, we recognize the composition of substance and accident from the order of activity in changeable being.

It can be seen, therefore, that substance is not

52. cf. Regis, Jolivet, La Notion de Substance, Paris, Beauchesne, 1929, p. 39.

something inert and inactive, but rather through the existential dynamism of its action properties emanate from its essential principles by a natural resultance. Substance is, indeed, the "active cause in a certain way" of its various properties as St. Thomas points out.⁵³ It is not their efficient cause, to be sure, but they result from the subject as color from light.⁵⁴ This is not true of purely contingent accidents, however, which come and go through the causal influence of some extrinsic agent,⁵⁵ but it is primarily in virtue of these contingent accidents, that the being and reality of substance is recognized.⁵⁶

What, then, is substance? It is certainly something more, something deeper and more fundamental than time and space; these refer in general to the contingent accidents of motion and quantity inhering in material substance, but are obviously, in the sense of our analysis, not identical

53. St. Thom., S. Th. I, 77, 6, 2m; De Ente et **Essentia**, c. VII.

54. St. Thom., S. Th. I, 77, 6, 3m.

55. St. Thom., De Ente et Essentia, cVII.

56. So Fr. Garrigou-Lagrange says: "The many, in fact, are only intelligible as a function of the one, and the transitory as a function of the permanent or identical; because 'every being is, of itself, one and the same, which is one of the formulas of the principle of identity. To say that a being is a substance is to say that it is one and the same under its multiple and changing appearances.'" Dieu, son existence et sa nature, 5^e edit., p. 168.

with the nature of substance itself; they are accidental, and at the most, necessary accidents, or properties. There are, therefore, really two characteristics of substance: (1) to be the subject of accidents (2) to be that which exists in itself (in se or per se). The first character is purely relative and presupposes the second one, the ability to exist in itself. Therefore, the formal nature of substance is "essence to whose being is due existence in itself and not in another" as a subject of inhesion.⁵⁷ Consequently, we must reject Professor Strong's position which finds the nature of substantiality in space and time for the datum.

Next, let us consider the value of his position on the "efficaciousness" of the objects reached and known through the data, or causation.

As we have seen in our exposition above,⁵⁸ Professor Strong upon coming to his view of "causation" allies it to the notion of "creation", in point of fact, he uses the term "recreation". Furthermore, he admits that the very minuscule changes, the subtler changes, or the very small changes, escape the knowledge of our external senses, but he affirms that we do know the "larger wholes of change" with approximately probable knowledge through these very same external senses. Again, invoking his principle of volition,

57. cf. Aris. Met. VII, 1-3; St. Thom., C.G. I, 25.

58. cf. supra, Chap. II, Sect. E, p. 62.

he thinks that our response to this changing and changeable situation is what chiefly assures our knowledge of it as a causal relation. In themselves, these causal relations are linked in an infinite series, but the volitional response unifies them into individual selected objects of single cases of cause and effect for our cognitions. And any given "uniform sequence" may thus be designated as a case of cause and effect since time is nothing else than reality reproducing itself - and to a large degree is unchanged.

For our part, we cannot see that creation is a change, in the usual sense of a "natural change", nor can we admit that anything can recreate itself, assuming for the sake of argument that creation could be considered as such change or causation. Along with this, we see no necessity to resort once again to a volitional response in order to provide a simple object of cause and effect to be distinguished or differentiated as such for an object in the order of our knowledge, if not for the very good reason that his supposed statement of the issue, that in reality there is an infinite series of caused beings to cope with, is an open contradiction in itself. Let us now pursue the reasons for these assertions in greater detail.

First of all, the one great difference between a creation and an ordinary change is that creation totally excludes any material cause of pre-existing material principle,

while a natural change absolutely requires such a principle or subject, i.e. a real passive potency. In point of fact, therefore, there are three realities accordingly demanded for such change: a terminus a quo, a terminus ad quem, and the subject itself which undergoes the different transformations, for nothing naturally comes from nothing. Now this is not true of creation, in which a thing is produced in its whole being - presupposing no subject at all which can become otherwise than it was before. Consequently, by the term creation, we understand the "production of a thing from nothing, i.e. from no pre-existing subject." Defined in this way, creation looks to the terminus a quo, or the agent, i.e. creation actively considered. Looked at in relation to the terminus ad quem, or the effect, i.e. creation passively considered, it could be defined as the "production of a thing according to its whole substance", that is "the production of a being inasmuch as it is being." Or, as St. Thomas phrases it: "creation is the emanation of the whole existence" (the entire 'to be').⁵⁹ Creation then totally excludes any material cause or pre-existing material; it is truly "from nothing of itself (no form) and any subject (no matter)." "From" therefore, does not signify a material cause, as if "nothing" were to be some sort of matter from which the creature were to become,

59. St. Thom., S. Th. I, 45, 1; 2, 1m: 3.

but rather signifies an order only of reason between a negative term and a positive term, or between the antecedent nothing and the subsequent positing of the thing.⁶⁰ The object of creation is the whole being and not just some part of being; this distinguishes creation from substantial and accidental form, and the pre-existing subjects of prime matter or the whole substance are presupposed. Creation, therefore, strictly taken, is not a true change, for the potency in creation is not in another (as with change), but rather only from another. And we may further observe that while we may not be able to grasp every detailed change or changes in particular, owing to the obvious limitation of our sense faculties, we must maintain that we infallibly do know the essential principles at stake in every change no matter when, where, or if such changes were to occur in particular: the essential explanation would hold true in all cases even if some changes were not ever accessible to our senses because of their "ultimate fineness". Our knowledge then is not merely average and approximate, but certain and infallible. Change in its proper meaning is not a creation, and we observe further that such a view of causation is no doubt ultimately prejudiced by the Cartesian view of motion as something added to an already fully actualized entity, a state or permanent condition corresponding to a mere change in position of particles wherein the motion of

60. St. Thom., S. Th. I, 45, 1, 3m.

one body literally passes it to another. Now, while this description is highly appealing to the senses, and especially to the imagination, it is obviously not very rationally or philosophically respectable. Motion is not something added to a fully actualized entity at all, but rather a real passage or *transitus* of a passive potency to actualization; it is not a state, since it is essentially transient, and it certainly cannot be passed or handed down from one body to another since it is not a complete being, which is the only kind of being which can or does exist on its own part. When one billiard ball in motion contacts a second, the motion of the first is not communicated to the second, but rather a new motion is *educed* or generated within it. And so, while this view of motion may be helpful in experimental science, it certainly is not at all philosophically sound. And this Cartesian alliance becomes painfully clear when we realize that in designating motion as a mere "state" it is undoubtedly contingent and in radical need of a conserving cause, such as would be the continued creative activity of God, rather than a mover continuously acting *on* something which is moved, as a natural agent extrinsically making it pass from potency to act. It thus appears that we are dealing with the Cartesian notion of causation in Strong's unique form of it.

Secondly, it is a mistake on Professor Strong's part to

conceive causation, even as he erroneously refers to it as creation, as the ability to cause oneself. Assuming for the moment that we could, with him, hold that creation enters into every causation, we could not seriously admit that anything could "recreate itself." Nothing can at all cause itself, even in the erroneous sense that natural causes and changes are creative. For in order that a thing may cause, it must exist, which it cannot do until it has been caused; it must be in order to cause itself, and it cannot be until it has caused itself. Clearly, we cannot admit that causation is the real "recreating itself", let alone "recreating itself changed!"

Thirdly, we come to the point of the infinite series of cause-effect relations which become single objects of knowledge through our volitional response. Now, clearly such a supposed series of an actually infinite number of caused beings is an open contradiction. We offer two reasons:

(1) if the series exists at all, each member will have to be caused, and yet if it is said to be infinite, it would have to be without a cause, or uncaused, no matter, the number
(2) an actually infinite number is a contradiction, since a number can always be increased and decreased and what is actually infinite cannot. And so, we must reject completely Professor Strong's account of causation.

Finally, we come to examine Professor Strong's ultimate justification of the deepest form of his whole position:

Belief. He regards this as the final reduction of his views **in the face** of all others. Consciousness, motor-response, will, instinct, all go down to belief. And this he defends as the only alternative to a universal scepticism in itself taken as a position, as well as being the final conclusion historically of all philosophy up to his time - more specifically Kantian and post-Kantian thought, which in his view culminates in a scepticism born of an abortive agnosticism.⁶¹

If one is driven to the intellectual position wherein the object of all thought and knowledge itself is made equivalent to doubt, with a capital "D", such an attempt is clearly seen to be abortive - for in erasing all objects of knowledge from the content of knowledge the one object which itself cannot be erased is the actual and specific capacity of the mind to know this totally impoverished situation; consequently, there is inevitably one dollar, so to speak, always left in any general attempt to wipe out the bank account of knowledge. And this one object does not commit us to the field of voluntarism or idealism, but to the intelligibility of the real world, wherein the being and objective essences of things are self-evidently knowable. It is therefore a basic mistake to think that a universal doubt can only be overcome by an abandonment of the traditional meaning of mind in favor of the ultimate reality of the

61. cf. supra, Chap. II, Sect. F. pp. 63-76.

power of will, manifesting itself through a carefully graded series of levels of reaction.

And what does the object of this specific capacity of intellect indicate? It clearly shows that the mind is designed by nature, or built in its very intrinsic constitution and structure, to know a reality other than itself, i.e. cognition is always the cognition of something even when this something is "the specific capacity to know reality", for this itself is a reality and truly objective reality, clearly marked out in any attempted general doubt. Knowledge whose object is to know an object is still very much objective.

The question therefore, "how do we know that we know?" which purportedly puts all knowledge into doubt still leaves certain knowable points of unquestioned reality in its very formulation: that the knower can infallibly know the question, and the assured meaning and reality of the words in the question, for in proposing the question at all it is implied that we have abstracted or separated the total meaning (being) behind each of its words.

To doubt, we must know what we are doubting, which indicates that there must always be some assured knowledge of something surrounding the doubt, and the doubt itself can only be a gap within a sound field of knowledge and backdrop of some infallible cognition. Thus, the only scepticism

which is reasonable is a partial scepticism, and this only asks for the further advancement of knowledge already possessed, for if we can know some truth, we can know other truth. It is not the will coming into existential collision with the object through a sense datum, but the operation of a potency, which is made to know of its very essence uniting with the object through the principle of immateriality.

Section E. Time, Space, Being

Professor Strong, in his opening remarks expounding his views on time, space, and being, situates the treatment of these topics by linking them up as genetic outgrowths of one another. As will be recalled, he rightly observes that "becoming" presupposes that "being itself exists", for clearly no reality can act or be acted upon unless it exists. He further points out that "becoming" more specifically requires that the reality be first in a place, in order to become or pass to another place, while in the process of such a passing itself, it will even more specifically require to be in one point or place after another, in a series of temporal instants. Thus, in explaining ourselves on these topics, we should study in order of precedence, according to Professor Strong, instants, points, and existence, in order to reach the nature of time, space, and natural being itself.

We may note also, in order to establish the task and

continuity of our next section concerning his views on consciousness and free will, that he observes in general that we have no sense knowledge about instants, points, or existence as such, but that they seem to be necessary conceptually, in our knowledge of time and space. Consequently, the process of our knowledge, and its impulse, will, seem to be immune in their becomings from material becoming in time and space. Are they really exceptions?

However, in beginning his discussions on time, space, and being, Professor Strong makes an important concession in the face of these embarrassingly apparent exceptions to the natural demands of ordinary material becoming and being, and notes that the philosophical analysis, which he is about to undertake in connection with them must be only temporary or provisional because the "facts and data" are not all in from experimental science.

Now, for our part, we not only object to the general tone of his approach to the discussion of these topics, but also to the specific explanations which he gives to the nature of time, space, and being themselves. Consequently, our criticism of this portion of Professor Strong's philosophy will fall into two parts: (1) his confusion of the serious difference between philosophical science and experimental science, and (2) his inaccurate accounts of the fundamental character of the realities of time, space, and

being themselves.

First of all, we must reject the view that Philosophy is at the mercy of the experimental sciences in the discussion of its topics, even those of the cosmological notions of time, space and natural being. It is true that both sciences must in all honesty begin with sense observations, but it is not true to expect that they will have the same explanatory character. They both have radically different viewpoints. Experimental science dotes on the data of sense experiences: the field of sensible appearances or phenomena is the limit of its scope, and the discovery of the uniform and stable concomitance and succession of what occurs in this matrix is one of the heights of its accomplishment. The object, then, of experimental science, centers around the experiment which brings into sharp relief the functional relation between phenomena under controlled conditions; the observed regular sequence of events becomes the basis for an hypothesis, and this becomes a law by more and more sense observation verifying it through the process of induction. Newton's Laws of motion, for example, show that under definite circumstances certain bodies must fall and others must rise in the air, the tides must occur regularly, and the stars must follow certain motions.

The ultimate scientific note, in the experimental order, however, is not reached until the stage of the theory; here,

the man of science takes the laws themselves as instances for a higher induction by means of which he comes to postulate one or more simple and fundamental tenets which would express in an even more universal order the lesser universality and comprehension of all the so-called laws. The first purpose of a theory, therefore, is to make a logical synthesis of all the known laws; such a synthesis is neither true nor false, but only valid or invalid, good, or wrong, in achieving this goal. Indeed, if the theory were to be proven, it would become a law. At the most, it can become a deductive basis for the suggestion of future experiments, leading to new hypotheses and laws.

Now, in the realm of philosophical science, the starting-point is sense observation also. But the movement of the mind from this is more intensive than extensive, as is the case with experimental science. On the basis of sense observation, the mind deduces the nature or essence of a thing: it tries to know the intrinsic cause of its being and thus, step by step, discover, collect, and build up a system of truly scientific knowledge. The principle is the essence, and the method is deduction, i.e. one thing is known because of its connection with a nature or something which is superior to it. Here, we do not need a strict induction as a point of departure for the understanding of reality, for from the nature everything can be deduced. The point of de-

parture in experimental science is ordinary experience too, but from the very beginning, methods of control and physical measurement are applied, and hypotheses are duly submitted to give a tentative, provisional, and temporary explanation of the functional uniformity of the factual situation.

Therefore, philosophy differs from experimental science in its object, method, and principles, and hence, in its conclusions. Both begin with sense observation, but the object for philosophy is to discover the nature or the essence underlying the phenomena, while for experimental science it is to note the regular sequence of events among certain phenomena under controlled conditions; the method of philosophy is chiefly deduction, while for experimental science it is only induction; the principle for philosophic proof is the essence, while for experimental science it is more and more sense observation; in fact, the theory for the experimental scientist is the logical (unreal) substitute for the essence in philosophy. Therefore, it is quite unjust to expect that the material derived from the experimental sciences should form the basis for philosophical investigations - in point of fact, the concepts and laws which they derive from their systems of observations and investigations are irrelevant to the fundamentally philosophic approach and are in reality distinct and independent

to its truth. The explanatory character of both sciences, therefore, radically differs: philosophy is concerned with the "know-why" of reality (ultimate causes, essences, etc.), while experimental science is concerned with the "know-how" of things, and at the most, the latter is concerned with gaining more and more power over nature, rather than gaining its fundamental comprehension and understanding. Consequently, we find it necessary to discard Professor Strong's serious reliance on the results of the researches of experimental science for philosophic discussion,⁶² and we do not regard the results of genuine philosophic researches as open to constant revision in the face of further possible experimental investigation. This may be a perfectly legitimate stand in experimental science itself with regard to its own experimental theories which from time to time must be modified or even totally replaced by wholly new tenets to embrace all the currently discovered laws, but it is a basic mistake to confuse this theory with the philosopher's analogical equivalent - the essence, for a scientific theory does not really pertain to this province of study at all.⁶³

Next, we turn our attention to what we regard as

62. This viewpoint of his permeates completely through his discussions; that is why we criticize it at length here; cf. *supra*, Chap. III, pp. 80, 86, 92. (footnote #28)

63. cf. De Raeymaeker, Louis, Ph.D., S.T.D., Introduction to Philosophy, trans. by Harry McNeill, N.Y., J.F. Wagner, Inc., 1948, pp. 8-19.

Professor Strong's inaccurate account of time, space, and natural being.

Professor Strong, in analyzing the extra-mental status or objective reality of time, rightly proceeds to the nature of the instant and correctly observes that under no circumstances can the instant of time be permanent: for on that erroneous hypothesis, it would not really account for the objective passing of the motion at the bottom of time as a measure, but would rather involve the absurdity of one instant reaching out to another, both instants co-existing, making the past be present and past simultaneously. He clearly realizes, therefore, that insofar as time exists, it must do so by reason of the present instant. But, on his view, what in the present instant enables the past to have vanished and the future yet to be, when both of these attributes can have no real actuality at all in the present instant? The answer, as we have seen, is its ability or power, not merely to act (*puissance*), but to produce change (*pouvoir*). For him, this is not a miracle, nor is it a pure creation; it is not a miracle, for we are explaining the arrival of the new instant in terms of the present one (and this is not a blind acceptance, which he regards as a miraculous view), and it is not a pure creation for the present instant in actualizing itself, in the same breath, projects another into its becoming.

Now, for our part, we willingly confess with Professor Strong that ~~this~~ explanation must be advanced before any serious thinker with fear and trepidation, for it clearly forces the issue into no real solution at all. The present instant, to be sure, is what is alone real, but to avoid the embarrassing difficulty of explaining the actual arrival and reality of the next instant by saying that it is part of the very actualization of the present instant, that is a sort of secondary task to its own primary task of actualization, is much like the classic trick of the magician's pulling the rabbit out of the hat - "now you see it, and then you do not!" You do not and cannot see it in the present instant's actuality because it simply is not actually there, and so cannot actually be understood and viewed as there, and yet you are supposed to see it actually, not as the present instant's power (puissance), but in its ability (pouvoir).

Now, Professor Strong claims both these viewpoints to ~~be~~ currently actual, and so, I think we must admit that the future instant in relation to the present instant actually is and is not. It is no wonder then that he allows the other repugnant extremes of a pure creation or a continuation of one present instant to be possible explanations, when this view is so equally distasteful under rational analysis.⁶⁴

64. cf. supra, Chap. III, Sect. B., p.86.

At this juncture, it is interesting to note that Professor Strong's epistemological backdrop breaks down seriously when forced to come to serious terms about the nature of reality. He admittedly realizes that all instants of time are unified and simplified, or rather smoothed out in the datum of consciousness, so that the successive instants form a coherent object of knowledge in the knower - "for the needs of life", "for the sake of practical needs"; this is to say, that the organismic response fictionally synthesizes what is basically otherwise, analytical, plural, and serial. And yet, when it comes to bearing down on the real nature of time (and subsequently, space and natural being, of course), do we find the truth of our understandings through our reactions, responses, etc., which are purportedly the "true data of knowledge?" Certainly not; we find ourselves investigating time, for instance, through a completely different avenue of approach and with a completely other set of principles than his own, the first one being "the essential capacity of the mind to know the truth", (without appetition entering in to make it true) "the objective intelligibility of being existing independently of the knower", etc., all of which we have noted before in our criticism of his doctrine on knowledge. It would seem that when we have some serious philosophizing to do on these subjects, Strong's supposed view and explanation of knowledge must be put into

cold storage, and the traditional position must be adopted.⁶⁵

However, to return to Professor Strong's problem, we note that there is a real issue at stake in explaining the objective nature of time in terms of its instants. And we must admit that Professor Strong comes near to the real truth when he distinguishes the "power" and the "ability" of the present instant with respect to the origin of the future instant. There is a twofold aspect of the present instant regarding the future instant in (1) its actualization, and (2) in its potency or ability to bring forth the future instant, or what he calls the "pouvoir". However, it is to be noted that this is not an active potency, or ability, but a passive potency, or capacity, which though being real in the present instant, still in no way actually exists as future, but only as present. As St. Thomas puts it:

"it is the nature of motion to be completed not only by what is of motion in the nature of things, but also by what the intellect apprehends. For, of the motion in the nature of things, there is nothing more than an imperfect act, which is a sort of a beginning (inchoatio) of a perfect act in that which is moved. Thus, in a thing which is turning white, there is already some whiteness. However, in order for that imperfect act to have the nature of a motion, it is further required that we should understand it as a mean between two extremes, of which the preceding one bears to it the relation of potency to act, and the one which follows it that of act of potency: which is the reason that we call motion the act of that which is in potency." ⁶⁶

65. cf. supra, Chap. III, Sect. A., p.81; also our analyses and criticismx in Sects. A, B, C, D, in this Chap. VI.

66. St. Thom. in Aris. Phys.III, 3, 202b25, lects.5,17.

Therefore, there is a twofold character to the nature of time: objective and subjective. Objectively, the present instant actually exists in terms of some extrinsic efficient cause positively influencing it, for what becomes must have a cause; however, in this present instant there is a real passive potency for a new actual instant, the future instant, which is in no way actual under the present instant's actuality, and this is reduced into act, combined with the influence of an appropriate extrinsic efficient cause, the future instant becomes present. Subjectively, the mental memory of the present which has become past through the arrival of the future, gives us the measure of time for these real instants of motion. Thus, time as a measure is a mental fiction (*ens rationis*) with some real foundation in reality, the imperfect existence of the present instant of motion.

Next, let us pass to the consideration of Professor Strong's views on space. We have already noted that he regards space as a genetic outgrowth of time, for in his regard, in order for a body to pass in time, it must go from place to place, or point to point. On this score, he seems to reduce all motion to local motion, excluding qualitative and quantitative motions altogether, and this is undoubtedly due ultimately to a Cartesian prejudice on motion, by which all motions are local and merely a change in the position of particles adding nothing real to them. However, we note

further, passing over this initial criticism for the moment, that in assigning the proper investigation of space to points, he offers the added argument that any portion of space is infinitely divisible into smaller and smaller units or points - the principle being that "that which is divisible is already divided." Consequently, we must face the understanding of space in terms of the examination of points, but with the warning again that whatever our ultimate conclusions may be, the data of experimental science are not all in, and so our philosophic conclusions cannot ever be final, a position which we have just recently discarded as hardly philosophically respectable.

Having reduced space to points in these two approaches, Professor Strong further proceeds to solve the difficulty connected with an assemblage of points producing three dimensional extension. Two points next to one another can have no space between them, for they would be next to the space only, and not next to one another, and what is further absurd, no line could be drawn between them, if they were really next to one another, since there would be no space for the line. Consequently, the points themselves must be extension, and extension cannot be really distinct from them. But it cannot be one point, but at least two points, since our conceptual means of reaching it would involve an endless, infinite regress of concepts of points, no one

ever being the final one. Now, for our part, we think this latter observation⁶⁷ a serious subjectivist and idealistic confusion of the mode of our knowledge with its object: we ought not really to confuse our ways of thinking of things with the objects themselves, the map for the country, so to speak. Concepts are means by which we attain truth, and not ends in themselves. Consequently, we see no reason at this point to discard the possibility of knowing ultimates simply because the process of one thought after another is apparently endless; it is the content or meaning of a thought which is important.

But let us address ourselves to what he regards as the specific nature and character of space. We will recall that it is involved by analogy with time; the instants of time in both their actuality and ability originate in a sort of creative fashion the next (future) instant. Now, Professor Strong acutely observes here that there is an ebb and flow, so to speak, of current energy, the present instant ebbing and the future instant flowing into reality by a simultaneous substitution. This ebb and flow then produce the spatial aspect of the motion of the temporal process, that is real local motion. When this energy distribution is equal in the present instant to the future instant, we have rest, or an object staying in one place.

67. cf. supra, Chap. III, **Sect.** B, p. 89.

Now, for our part, on this matter, we regard Professor Strong's very concealed error in his explanation of the instants of time as coming out into the open air here in respect of his views on space. For it seems plain that we should have to have both the present and future instants existing simultaneously, for the fall and rise of energy required to produce extension. Now, clearly we cannot have the future be present. It is no wonder that Professor Strong advances this thesis of his work with the least confidence.⁶⁸

However, these are not the only difficulties which Professor Strong's position here labors under. It destroys the very reality he meant to explain - extension itself. How can an extended reality be made up of unextended, indivisible points? What is more, if such were the case, the points would be at a distance from one another, or in contact; if the first, they would not form a continuous extension or quantity, and if the second, they would all coincide with another, having no middles, ends or extremes, or extension at all, with parts outside one another. Therefore, either the continuity of extension or extension itself disappears. As we have noted with the instant of time, so we also assert of the elements of space, their parts are potentially present, not actually present. Both time and space are infinitely divisible, but not infinitely divided.

68. cf. supra, Chap. III, Sect. B, p.91 (footnote #28.)

Consequently, time and space not only are not composed of indivisibles, but also, though infinitely divisible, are not actually so divided at all.⁶⁹

Finally, we come to consider Professor Strong's views on the nature of being. Having reduced time and space to variations of energy, we are brought to the doors of natural being itself. What is the inner character of natural being which emits time and space, or the causality and substance of natural things? Professor Strong asserts it to be animation, a sensation-force, energy or belief. The transient reaction of being, whether organic or inorganic (for the difference is only one of degree) accounts for the whole of nature. All the plurality in nature is unified in terms of function. Consequently, Strong's philosophy of nature terminates in a radical dynamism, and, therefore, lays itself open to every criticism against such a position in general.

First of all, the reality of extension is unquestioned

69. St. Thom. in Aris. De Sensu et Sensato, lect. 15:
 "Corpus mathematicum est divisibile in infinitum, in quo consideratur sola ratio quantitatis in qua nihil est repugnans divisioni infinitae. Sed corpus naturale, quod consideratur sub tota forma, non potest in infinitum dividi, quia, quando jam ad minimum deducitur, statim propter debilitatem virtutis convertitur in aliud. Unde est inventus minimam carnem, sicut dicitur in I. Physicorum, nec tamen corpus naturale componitur ex mathematicis."
 ---St. Thom. in Aris. Phys. VII, lect. 9, 5: "Sicut aliquid est ens, sicut et unum: unum autem est quod est in se indivisum et ab aliis divisum: pars autem prout est in toto, non est divisa in actu sed in potentia tantum unde non est actu ens neque una, sed in potentia tantum."

and unquestionable, and any argument against this fact such as Dynamism, must be rejected. Professor Strong's explanation of extension amounts to a denial of it, besides revealing the very evident defect in his views on time, for in order to explain it, he must have the present and future instants existing simultaneously, an obvious impossibility.

Secondly, if time, space, and natural being are ultimately simple energies or forces, they must be in contact or not in contact. If they are in contact, they will all coalesce forming a single force at one geometrical point, for extension is required for contact (if a tangent of a circle touched it at one point only, it would not touch it at all.) In the latter event, therefore, the plurality of bodies would disappear. However, if they are not in contact, no one body could be one body or a unity, since its forces would be entirely distinct from one another and could not act on one another, since nothing happens without contact. This would also be true if all the forces converged at one point, since they would all be independent in it. But if bodies have no unity, they have no nature, for if a thing is not one thing it is nothing. Consequently, we shall be left with a meaningless force or a nihilism of the first order.

Section F. Consciousness and Free Will

We are already perfectly familiar by now with what Professor Strong ascribes to the specific nature of consciousness, the motor-response of the total organism revealing the value of the object to the subject, but in facing the reality of consciousness itself at this point, we are told a number of things by Professor Strong which were left in the background in the stages of its derivation.

First of all, we are informed that his position answers the epistemological issues raised by phenomenalism, scepticism and agnosticism; what all these "isms" have to contribute positively in Strong's regard must be accepted, while their negative ideas must be obviously put aside and rejected. Thus, Professor Strong considers his own position on knowledge and consciousness to be supplementary to the positive aspects of all these "isms" in bringing them to a stable epistemological balance. Phenomenalism, for example, in his regard, makes too naive an identity between the species or representations of things and the objects themselves; there seems to be here no possibility or provision for accounting for the everyday occurrences of error in our knowledge and cognition. Consequently, it is no surprise to Professor Strong that the "ism" of scepticism sets in, wherein, as a matter of policy, it is held that it is useless to try to distinguish between the true or false

representations of our cognition, when such a rigid position of phenomenalism makes no allowances for errors. One cannot live with such a position and one cannot, if it is supposedly so true, live without it; scepticism, then, would do both and consider knowledge as much true as it is false, i.e. worthless. Agnosticism would save us from scepticism by telling us our knowledge is of the appearances of things only, and so there is no real problem in worrying about whether they do or do not correspond with things in themselves, for what is important is the necessary and fixed way we conceive and sense things, rather than the things in themselves: the mind then produces the natures or essences of things with a facile infallibility, while the existences of things in themselves cannot be held to do so. But, in Professor Strong's regard, agnosticism also fails since it is self-contradictory, for to know that things exist beyond the knower is already to know something about them, while to hold that they blindly excite the knower to the eliciting of the subjectivity of his cognitions already puts the very important relative essence of cause and effect beyond the knower unblindly. Clearly, then, there must be a further and sounder "ism" beyond these three, and it is Professor Strong's position. To be sure, phenomenalism is right in regarding our knowledge to take place by the process of representations, but it is wrong in being so rigid that it

cannot make room for error; scepticism is right in magnifying this point by revealing the worthlessness of cognition if we hold fast to the inevitable infallibility of representations, but it is wrong in giving up the issue altogether; agnosticism is right in trying to hold on to what is seemingly of the only value - representations, but is wrong in trying to hypostasize them from their necessary existential and essential connection with real objects by giving this role over to the subjectivity of the mind or knower. Professor Strong embraces the positive value in these "isms" and expels the negative value; he admits the only reality which comes through this critical dialectic of the pure positions of the history of the philosophy of the issue is the representation, but he adds what he regards as his own contribution, reaction. Reality acts on the knower, produces these representations or appearances, which are guaranteed to be true through the reactional value of the total organism.

Now, for our part, we wonder whether the issue leads to as desperate a problem and solution as he seems to think. The original point of departure, phenomenism, when conceived adequately seems perfectly capable of telling the truth of cognition properly without giving way to its prospective successors or spectres of scepticism and agnosticism, and finally to Professor Strong's position. We have

already pointed out that knowledge must take place in finite beings by means of a representation or species, and I think it remains now only to bring out how this position, call it phenomenalism if you wish, takes care of the occurrence of error and false appearances.

There is always an evident basis for recognizing the difference between "what things appear" and "what things are." We can always tell what things may appear to be in an individual, abnormal case from what they are known to appear normally. And there is no ground for holding that what things appear in normal cognition to be anything other than what they are really in themselves; the best reason why things appear as they do is because they are as they are. And it is a gratuitous and very arbitrary assumption that the object of knowledge must be hopelessly swallowed up by the subjectivity of the knower to such a degree that what we know is wholly subjective and not objective. It is always possible to distinguish between what an object appears normally and what it appears in abnormal, special conditions, and to call the former true knowledge, and the latter false or illusory knowledge of how reality appears.⁷⁰

Furthermore, it is extremely ambiguous to speak of "appearances produced by reality" for this way of speaking implies that the appearances have been disconnected from

70. cf. Coffey, P., Epistemology, Peter Smith, N.Y., 1938, p. 177.

reality (for they are 'pseudo') and yet they have been produced by reality as effect to cause. This already sets the existence of reality outside the knower, but still accessible to the knower, and it also sets its essence outside in reality in terms of the nature of the knowability of the cause-effect relationship seen as existing between the reality and the knower, as we have already noted. Clearly, then, the being of reality in its existence and essence is actually knowable to us, and it is grossly unfair on our part to be intimidated by "appearances." ⁷¹

Past experience attests to the fact that we have suffered from illusions and deceptions, but we also know that we can rely on our sensations when they take place under normal conditions.

The human intellect through its power of self-reflection can always distinguish the conditions necessary for an act of cognition to be normal (1) on the part of the knower (2) on the part of the object known, and (3) on the part of the relationship or medium between the two. It is plain, for instance, that the senses must be physically healthy (no color-blindness, near-sightedness, deafness, etc.) to distinguish one object from another normally, and that the imagination can be diverted through anxiety, fear, and desire producing illusions and hallucinations. The object

⁷¹ op. cit., p. 182.

known, for instance, must be at a certain distance from the sensing organ to be sensed normally, its speed of movement must not be too fast or too slow, and sometimes in the case of common sensibles (size, shape, etc.) more than one sense must be put into play in order to have the act of sensory cognition be normal. The medium, too, should be normal: we cannot have too blinding or too dark a light, we cannot see an object if there is another distorting medium, such as seeing an oar bent in the water, etc. But all these references have to do with the relation of the senses to sensible reality as viewed by the intellect, while the intellect in relation to the senses may itself be impeded per accidens from reaching the truth in sensory cognitions, say if there were some preconceived ideas or prejudices which prevent the mind from seeing the truth. However, at the supreme height of our knowledge in intellectual cognition, the absolute contradiction of not observing the evident distinction of the conditions for distinguishing the normal from the abnormal appears in saying that all knowledge is relative - for this itself presupposes that this knowledge of the so-called fact of relativity is not relative, and that it is wrong to retreat from the supremacy and domination of the object in our knowledge to some other supposed source, say the intellect itself, or the will, just because we have been wrong at times in hitting on the normal versus the abnormal. Indeed, the

very fact that we know we have certainly been wrong in the past and have later found out about it indicates that the truth of our knowledge, as measured by an objective reality, is not out of our cognitive reach, but is accessible. In fact, from the viewpoint of this "knower-correspondence-to-an-object" explanation of truth, there is as much evidence for it in its failure as well as in its success: for to know a truth and really know it, is to conform or correspond to it, while to know an error as such must take place in the same fashion. Far from disqualifying this position on truth, error confirms it. A lost island implies that at some time it must have been found. And it is an entirely arbitrary view of the evidence to rule in favor of the knower or subject instead of the object as the source for real truth. Consequently, agnosticism is a completely unjustifiable "saving" of the situation, even a voluntaristic agnosticism. Finally, it is self-contradictory to deny that the condition of knowing truth on the part of the human intellect is for it to conform to reality, since to attempt to deny this is still to have the mind conform to it as another supposed object of knowledge which the mind is confronted with and must try to know by means of the same route.⁷²

In the last analysis, however, the ability to distinguish the normal from the abnormal is due to abstraction,

72. cf. Barron, Jos., Elements of Epistemology, Macmillan, 1941, pp. 140-144.

whereby the mind distinguishes what is essential from what is unessential or accidental. And this process is equally unquestioned and unquestionable on the mind's part for itself, for if we were to pose the question - how do I know in reality what is unessential from what is essential? - the truth of the answer to the question must have been already decided on this point by the questioner before it could have been asked, for he already distinguished the total meanings of the words in the question from one another at the very start, and he might as well be asking - how is how how? or why is why why? an obvious exercise in idiocy. Aristotle makes serious sport about those who know more than there is to know.⁷³ Clearly, then, the human intellect has an infallible capacity to make reflective justifications on the nature and conditions under which an accurate knowledge of the sensible world may be gained. Consequently, there is no reason for Professor Strong to look for another factor for the explanation of the conscious knowledge of an object, such as will, other than the knower, the thing known, and their transcendental relationship.⁷⁴

Next, we come to the consideration of what Professor Strong regards as the proper definition of psychology, "the science of the data of consciousness." Now, having rejected

73. Aristotle proposes this doctrine in Met. IV, 5, 1010b1-1011a1.

74. In Aris. Met. III, 3, 1005b6-1006a28.

many times over what he regards as necessary to close the gap between knowledge and its object, the principle of the modern theory of will, we must as well set aside this definition of psychology also, at least in the philosophic sense. The real nature and essence of living beings as we have noted before can be reached in all its truth by the method of abstraction and deduction without resorting to the principle of volition or will as foundation for its certitude. This may be perfectly well a good working hypothesis in the field of experimental psychology in studying the behavior of living beings to determine the laws governing their functions under controlled environmental conditions, but it is completely unnecessary and irrelevant to introduce it as an all-necessary factor in the field of philosophical work. Consequently, we may grant what he holds here for experimental psychology, but not for philosophical or rational psychology, a distinction, of course, which he would neither implicitly, nor explicitly maintain.

We would also take much the same stand on his "great discovery" of "mind stuff". At the most, from the viewpoint of experimental psychology in its object, method, and principles, this could only be considered as a tenet for a scientific theory, which, of course, enjoys no ontological status as revealing the natures or essences of things in themselves. Consequently, "mind-stuff" may be a wonderful and

logical extrapolation which would fire the imagination and possibly the mind of the experimentalist to new heights in furthering the progress of his work, but in itself it could never be very philosophically respectable. As he conceives and proposes it, it seems to enjoy a deeper parallel status to the datum: just as the datum is between knowledge and its object, so this "mind-stuff" is somehow midway between mind and matter, being the very stuff out of which these are made of. But, from the philosophical viewpoint, how could this one supposed reality be both simultaneously active and passive; how can a principle such as potency, which is wholly lacking in perfection, be act which is the exercise of perfection simultaneously? We should be having to say "yes" and "no" to the same thing simultaneously - an open contradiction.

Furthermore, we must come to the defense of the intuitive cognition of the external senses, which Professor Strong regards as impossible.⁷⁵ The reason why he regards it so, of course, is his rigid adherence to the transient character of cognition implemented through the datum. The object producing the essence-appearance in the "unknown" beginnings of cognition does finally come to be known through the conscious-responsiveness of the datum; thus, the senses do not originally grasp their object directly and so are not intuitive. Now, for our part, we reject the

75. cf. supra, Chap. IV, Sect. A, p.105.

idealist position as much as Professor Strong does, at least in its agnostic or Kantian formulation, and we admit that we do not literally manufacture the objects which we know, but rather it is the objects themselves which are presented to us and not otherwise. The difference would be in the explanation of this realistic viewpoint. Professor Strong finds it necessary to retreat beyond the objects, the senses themselves with their effected representations or essence-appearances, and resort to the will-principle forming a datum which will be a sort of bridge by means of which the organism can get to know the original sensible objects themselves. However, no such a retreat is really necessary, for at the outset we are conscious of the essential indetermination and passivity of the senses. And since nothing can be reduced from potency to act except by a being already in act, the determination of the external senses must come from without; it cannot originate from the senses themselves, for potency cannot give itself act. Consequently, sensation must be an immediate intuition of something not myself, not a sensation to be sure, but an externally existing present object; the senses grasp their objects immediately and directly and then by means of this ultimately the senses objects themselves would be known. Therefore, we must reject Professor Strong's non-intuitional stand on the cognition of the external senses.

Furthermore, we must reject what Professor Strong regards as the general explanation for the origin of cognition in sentient organisms. As we have seen, through explaining cognition as an entirely transient function and arriving at the discovery of "mind-stuff", Professor Strong thinks it possible to regard the evolution of men and brutes from the lower forms of being. He thinks that he has so explained and conceived cognition and mind itself that it is entirely possible for it not to be present in the lower forms of being, say the lower forms of plants and the minerals, and yet to have evolved and come from them. "Mind-stuff" under the pressure and urgency of circumstances could and did bring about the cognition of sentient organisms. Now, in order to refute this position, we must first of all recall and agree to the essential distinction between cognitive and non-cognitive beings which we have explained and defended before. Cognition is not entirely transient, but formally immanent, a living quality, which although immaterial is not locked up within itself, but is essentially relative to an object other than itself; it is a real self-perfecting capacity and is not present in minerals and plants, the latter class of which are confined to immanent actions whose objects are for the development of the plant's own body (as, nutrition, growth, and reproduction). There is, therefore, not merely a difference in degree, but in kind, between

cognitive and non-cognitive beings, and this superior perfection must be referred as an effect to a proportionate and sufficient cause. Now, no amount of activities on the part of minerals and plants, no matter their combination and circumstances, will be adequate enough to produce the essentially superior effect of beings endowed with cognition, for the effect simply cannot be greater than the cause. Consequently, from this point of view, if Professor Strong's position were right, we would have to have cognitive beings really existing already to explain the coming into being of further cognitive beings, and their arrival would not be really new, nor evolutionary, in the sense in which he wants it to be.

We, therefore, reach the conclusion that the data of consciousness are nothing else than the realities of the real world intrinsically capable of being known by all the faculties of cognition with varying levels of penetration, but pre-eminently by the proper reflective capacity of the human intellect actually ascertaining and revealing the truth of the situation with unquestioned infallibility. The so-called data, then, are the same as real objects and what he calls the "essence-appearances": in a word, they are being, while consciousness is merely the essential capacity of faculties of cognition to know their objects, primarily and essentially ensured and guaranteed by the scientific

reflections of the intellect itself.⁷⁶ In sum, the intellect is made to know being, and so are all the other internal and external senses in their lesser ways. The datum and the object then are not distinct. And so, all knowledge is only false per accidens due to something accidentally connected with the nature or essence of the faculty.

And so, having witnessed Professor Strong's feeble, but noble attempts, to save us from phenomenism, scepticism, and agnosticism, to define psychology through his erroneous version of epistemology, to lead us to the well-spring of all being, "mind-stuff", to explain away the intuitive character of sense cognition, and finally to justify the evolutionary possibility of sentient organisms, we next come to consider his doctrine on free-will.

In discussing the notion of freedom, Professor Strong rightly provides the correct setting for the topic between indeterminism and necessity, for clearly we are either determined or not determined in any acts which make the claim to be free. And at this narrow focus of the subject, he correctly observes that modern science is only too quick to jump to the general conclusion that we are not really free owing to its avowed adherence to the observation of

76. cf. De Coninck, A., L'unité de la connaissance, Louvain, 2ed. 1947, pp. 18-23, 105-122: "To have consciousness of something, to be conscious of it, and to know it, is identically the same thing... Our initial knowledge is identically the consciousness that we have of ourselves as relative."

what regularly appears in nature to be a regular series of antecedents and consequents, or an unbroken march of phenomena. Certainly, this atmosphere has not the air of freedom about it.

Nevertheless, Professor Strong faces the issue squarely; in spite of the terrific influence, or at least innuendo, of the dictates and behests of modern science against the reality of freedom, there are certain facts which rule in its favor. He enumerates them as fourfold: (1) the fact of liberty itself, it is discussed, talked about, and there could not be so much smoke without a fire (2) we are intensely conscious of it as individuals, we make personal decisions (3) it is a present and actual reality: we have not only chosen, but are currently choosing, or are at least capable of so choosing in the face of opportune and appropriate objects; in fact, the variety of free choices is due almost entirely to the great differences between our individual natures and their divergent environments (4) although it is the "I" who chooses, this does not take place in self-consciousness or proper reflection.

Now, in our regard, it is this fourth point of Professor Strong's which brings to a head his specific position on human liberty. The reason, however, which he offers for it is an added and special one to his general rejection of self-consciousness as such, an aspect of his doctrine which

we have already criticized at length. But the special reason which he advances here is put in a sort of reduction to absurd argument. Human free choice cannot take place in a self-conscious decision because if it did, we should be determined, necessitated, and not truly free at all, for in such a supposedly self-conscious act, we should be determining ourselves to such-and-such an action through an equally determined object of such-and-such a character. All would be determined and no aspect in the slightest way could bespeak freedom at all.

The only way, then, that he thinks he can preserve the reality of freedom is to ascribe it to the contingent character of events, more specifically objects whose causality and substance are time and space and which are at bottom instants of energy in unequal distributions of intensity. The consequent interplay of these simple forces are the contingency and indifference of nature to what objects may pass before our personal and functional energies and our tendency to react to them cannot and must not really be restricted; and so, we must be free. In other words, there is an inner necessity in things for action, but the relations between these actions are not necessary, but free in relation to ourselves. It would seem, then, that it would be perfectly in accordance with Professor Strong's principles to say that objects as energies are necessarily

their own causes, but not of one another, but only contingently. Hence, his definition of freedom: "the unhindered efficacy of willing", ⁷⁷ and his added observation that "your will is not free, but its acts are" (supported in the quoted dialogue of Voltaire.) ⁷⁸

Now, in criticizing his conception of freedom, we observe that the original error seems to be in rejecting the self-consciousness involved in a free judgment because determination wholly destroys the indetermination at least generically required for freedom. However, upon a closer examination of this point, there seem to be places for both determination and indetermination on the part of the will. The human will in virtue of its dependence on the intellect necessarily or non-freely tends toward a universal good, since the intellect tends to know the essences of things in the universal, or rather being in its general truth. And so, we affirm that the foundation and basis for human freedom is the natural determination of the human will to the good as such with a consequent indetermination or non-necessity towards what is less than that, the particular good. The particular, finite, limited good is insufficient to satisfy fully and totally determine the demand of the will for the perfect good; so, the will must in some way determine itself towards it, or be truly free. As St. Thomas puts it:

77. cf. *supra*, Chap. IV, Sect. B, p. 116.

78. *loc. cit.*, p. 119.

"The perfect good alone, which is happiness, cannot be apprehended by reason as an evil, or as lacking in any way. Consequently, man wills happiness of necessity.. (On the contrary), in every particular good, reason can consider the nature of some good, or the lack of some good which has the nature of an evil." ⁷⁹

Accordingly, man is not necessitated by the particular good.

Consequently, there is a determination and an indetermination, necessity and non-necessity, to the human will, owing to the fact that man is rational. Only an intellect, which can know the universal and the absolute, can present the will with its universal good, and an intellectual self-determination regarding a particular good must always be non-necessary or free owing to the disproportion between the will and a particular good when its fundamental pursuit is a universal or perfect good, which is good in every respect. Liberty, therefore, has its roots in reason which is responsible for the determination and indetermination of the human will. In the last analysis, then, the error of Professor Strong is his Nominalism ⁸⁰ which reduces all ideas to

79. cf. St. Thom., S.Th. I-II, 13, 6.

80. cf. A Creed for Sceptics, p. 53: "generalization depends on habits of behavior, which have their physical basis in nervous arrangements for reacting to each set of similar things in a specific way. They make it clear how we can think of a class without imagining each one of its members. We may, indeed, have a vague image of some one member; but the generality of the class depends not on this but on a habit or settled tendency, and is brought before us by a certain kind of intent. ---In view of these considerations, it seems to me that the idea of a class is not unanalysable, and that nominalism gives a correct account of it."

sensible images and denies the possibility of forming a truly universal judgment containing under itself many singulars.

Again, as St. Thomas explains: "Pro tanto necesse est quod homo sit liberi arbitrii ex hoc ipso quod rationalis est." ⁸¹ In this way, it can be seen that man is directed primarily by the universal range and scope of his reason or intellect and not by the necessity of physical, natural law, as with the laws of falling bodies, the instinctive uniformities of the actions of animals, etc. In virtue of his mind, a man can compare the particular good with the good in general, which implies that the particular good as an object cannot ever determine him, but rather he determines himself about it. Consequently the proximate root of liberty is the universality given to the will by the intellect in its action of conceiving things in the universal, which in turn is a result of the intellect's spirituality. Therefore, in the final analysis it is the spiritual character of man which causes his freedom. All of this would be stoutly denied by Strong.

Furthermore, on Professor Strong's view of freedom, the actions of men would take on a very strange character. Their ("free") actions would proceed from a necessarily determined will toward a chance-like connected series of objects, each of which would have little or no real essential connection

81. cf. St. Thom., S.Th. I, 83, 1.

as objectives with the acts of "free choice", and men would be doing nothing else than acting desperately in the face of what happens to them. Truly, this is quite a challenge! It reminds one of a sleep-walker proceeding through a city with the wrong map.

In a true doctrine on freedom there is at roots basis a variety, a difference, a certain non-conformity to the free acts, indeed this is why they are generally called free, but the characters of freedom are deeper than Professor Strong's explanations go. Freedom itself, in its deepest signification, is the ability to act or not act when all the circumstances required for such action are given.⁸² The chain of events or objects which pass before the will-action, engrained in a particular "free" organism, is certainly non-selective, or has no particular favoritism for this organism rather than any other, but this is not enough to endow that organism with the attribute of being a genuinely free living being.

For our part, therefore, we cannot accept the rest of the consequences which Professor Strong draws forth. Since brutes are not rational animals, there cannot be a difference only of degree in freedom among men and animals. Also,

82. This mode of freedom regarding the act is called freedom of exercise and presupposes the prior mode of freedom of choice, freedom of specification, in which the intellect regarding the object refers to the will the power to so act or not through its consideration of the particular good as desirable under this or that aspect.

"freedom of indifference" is always to be found in the human will in the face of a particular good, for the man can act or not act with respect to it, and this is an indifference, and even if there were theoretically two equally attractive finite goods, the tendency toward each, which Professor Strong designates as "two instincts of equal strength" would still be free, for each of the objects is still finite.⁸³

Moreover, his final attempt to reconcile his version of human freedom with those of the fatalists and determinists is pathetic. For in all fairness to the intellectual honesty of the fatalists, it can be seen that his position is as much a real denial of freedom as theirs is, and the fact that his position offers the same hope and joy as theirs - that the same thing cannot happen to them again, one way or another - is a false hope really on Professor Strong's principles, for as he clearly says, "Nature is the empire of the unproven, of the arbitrary";⁸⁴ so, this hope of theirs might be lost too in the process. Professor Strong's position may offer a variety to the fatalist's grim stand, but it is a variety whose arbitrariness would consume and destroy fatalism itself.

83. cf. supra, Chap. IV, Sect. B, pp. 117-120.

84. cf. A Creed for Sceptics, p. 83.

Section G. Morality

In summarizing and evaluating Professor Strong's position on morals, we observe, first of all, that his explanation seems to take two phases. In the first phase, he alludes to what are for him certain ultimate facts, such as the fundamental indifference or purposelessness in Nature, its self-sufficiency, and finally the chance conflict of forces in action and interaction, unity and continuity, or time and space; thus, the whole universe in activity is alive, but it is not a spiritual, conscious being - there is no mind behind it, and this is even further confirmed by the appalling evil in the world itself. In the second phase of his exposition, he observes that this natural wildness of Nature cannot be the source for fixed moral values, and so, the ones we do have are only due to social customs and tradition, coming from individuals in a free community, who, as free, try to strike a logical balance in the holding of old laws and the framing of new ones in the face of their daily violation and adherence. And the reason why all this is possible is that the individual will to be happy is fixed, so moral values must be fixed, and since the instinctive biological value of reaction stemming from "mind-stuff" is constantly manifesting itself more and more in our onward growth, moral values can take on a specifically fixed

character within the current limits of our evolutionary development.

Now, for our part, we deny (1) that Nature (individually or collectively taken) is devoid of purpose (2) that it is self-sufficient (3) the chance conflict of forces produces the sensible reality of spatio-temporal objects of substance and causality (4) that the whole universe is alive (5) that real fixed moral values in general can only come from the fixed purpose of the human will to be happy specified by the currently known tendencies of instinct as a continuing result of the evolutionary process (6) that self-conscious reflection must be ruled out in present moral decisions.

In the first place, we cannot admit that finality or purposeful action is due to rational nature only; it obtains also in the rest of nature as well. This can be expressed in many ways: "Nature does nothing in vain", or "every agent acts for an end." We have already noted in a previous discussion that an agent could not be an agent unless it were to act for an end. Proceeding a priori, we observe that if an agent were not to act to produce some determinate effect, it could not act at all, the idea being that definiteness, determination, and specificity would have no sufficient reason for its being unless it were due to the agent producing it. Now, the effect must in some way be pre-contained in the cause - if not there formally

and actually, then at least virtually, such that it is in the power to produce this kind of effect (as, a body does not have to have the black eye actually to give one to another: it is in the muscular power of his arm). Thus, the finality or determinateness of an effect would be self-contradictory without its being linked up to the intentional action of its efficient cause.⁸⁵ Consequently, to deny finality to the rest of beings below man in nature is to render them completely unknowable and non-entities.

Furthermore, proceeding a posteriori, we see in living beings the marvelous adaptation of organs in their functions to the whole; if one part is injured, the rest come to its aid in the process of healing; throughout all the changes in the life-process of a living being, it retains its self-identity as a strict unity and has an intrinsic finality. Animals by sensing the appearance of their food actively move toward it. Hydrogen has a natural affinity for oxygen, sodium for chlorine, etc. And finally, in man, there is clearly the knowledge of end as end to be attained and the relation of a means as such, to its attainment.⁸⁶ We, therefore, cannot agree with Professor Strong that Nature is fundamentally purposeless or indifferent.

Even the "natural wildness", which he refers to instead of calling it chance, presupposes finality; there can be no

85. St. Thom., S.Th. I-II, 1, 2.

86. St. Thom., S.Th. I, 18, 3.

chance without law, no exception without a rule, for if everything were chance, this rule itself could not be stated universally and without exception. Clearly, if everything were due to chance, order arising from disorder, the original conception would have to be self-contradictory. Both chance and finality must be admitted to exist: if I go into the city and by chance meet a friend, this is due to a crossing of already existent finalities; if I dig in the ground and find a treasure by chance, this is due indirectly to the clear finality of the digging.

Evidently, then, not all that comes to be has an end, for many things come about by chance, as hills and valleys, freaks and monsters. And this can only be the grain of truth to the "wildness" which Professor Strong speaks of in nature. Aristotle himself argues quite pointedly and cogently against the denial of final causality and really what we take to be Professor Strong's position here, when he says: whatever things "come about just what they would have been if they had come to be for an end, such things survived, being organized spontaneously in a fitting way; whereas those which grew otherwise perished and continued to perish;⁸⁷" and as Aristotle continues to point out, such a view does not explain the permanence and stability of types, that only animals of certain species breed together, monsters and freaks being of rare occurrence and by chance. And so, the

87. In Aris. Phys. II, 8, 198b29-34.

rational and common-sense viewpoint is to realize that a man has eyes to see, a bird has wings to fly; he does not see because he has eyes, nor does the bird fly because it has wings - rather, the function determines the structure, the structure does not determine the function.

In the second place, we must deny that the universe in its parts or in its entirety is self-sufficient - the contingency of the real world is all too evident. The generations and corruptions or the substantial changes which are seen daily to occur clearly indicate that the things about us have a potency for another existence, and consequently per accidens a potency for non-existence. Such beings according to their nature indifferently refer to existence and non-existence, and in the last analysis must be reduced to a necessary being, Who has existence from Himself, from His own essence, a Pure Act, a God.⁸⁸

Furthermore, this ultimate First Cause is not a mere absolute source of energy, but an intellectually ruling agent, for elaborating further on what we have just recently noted as clear finality in nature, any nature seeking its end does not possess it from itself, but is in potency to it and distinct from it. And the ultimate reason for such a nature not being the same as its end is that there is a real distinction between its essence and its existence. If this were not so, the nature would be all perfection, being

88. St. Thom., S.Th. I, 2, 3.

itself, and consequently its own end. Instead, it is not being, but a being, i.e. a thing or nature participating or sharing in existence from another. And since it is not its own end, it must be ordered to it, thus requiring an intellect. Its natural appetite, therefore, is not intelligible unless there is understood to be an intellectual extrinsic agent to determine such a nature to its end, which Being in the last analysis must be its own end, since it is its own existence.⁸⁹ We must then disagree with Professor Strong and admit that mind is behind nature.

And if we are abashed at the evils in the universe, say the physical evils - as earthquakes, volcanic eruptions, storms, floods, the increase of disease germs, etc., this can only be so because we have already caught sight of the terrific comparison between a perfect God and a necessarily imperfect, limited universe with its privations and defects. The world is a limited being and its creation as finite could not be otherwise, for the effect must always be in some way less than its cause, and what is less than the infinite is finite. Consequently, it would be a contradiction to expect a world without limitations or defects. At the most, God wills physical evil per accidens for the greater good of the universe. For example, if there were no death,

89. cf. Aris. Met. XII, 7, 1072b10: St. Thom., lect. 7, 2535; also St. Thom., De Ver. XXII, 3, 5m; XV, 1; also S. Th. I, 103, 1.

the world would by now be an overpopulated mass of living beings; so, while death is bad for the individual, it serves the greater good for the species. And as far as the moral evil of sin is concerned, this is rather a deficiency on the part of a free act of a rational creature than something positive demanding the positive influence of God to support its being. At the most, a sin is a physical human act which is morally defective or sinful insofar as a man fails to do his duty, and this failure needs no positive causal influence on God's part. For, from God absenting Himself from the sinner, therefore, the sinner absents himself from God, Who then can be said to will sin only permissively.⁹⁰

In the third place, having noted the overall finality in nature and its ultimate Author, we cannot further subscribe to the chance conflict of forces producing the substance and causality of sensible objects, or their space and time. Nor can we admit, in the fourth place that the whole universe is animated or alive. The essential distinction between the living and the non-living is clearly marked out through immanent and transient actions. The actions of living beings are characteristically self-perfective or immanent: in this kind of operation, there is always a proceeding from an intrinsic principle to an intrinsic term, a quality whereby the action itself is a perfection of the agent (as, to understand, to sense, or to will); in

90. St. Thom., S.Th. I, 19, 10, 2m; also, 19, 9, 3m.

transient action, the perfection is of the thing acted upon, the thing moved, or the patient (as, to heat, or to cut), and the agent is clearly extrinsic.⁹¹ Now, we must judge of a thing by its characteristic actions, and on the basis of this distinction it is not fair to the evidence that the whole universe is alive: only some things are, like the plants, animals, and man - surely not the minerals!

In the fifth place, we must reject his position on morals which mainly grows out of all these errors: that the general fixity of moral values comes from the fixed tendency of the human will to be happy specified by the tendencies of instinct currently put forth by the evolutionary process. As we have seen, purpose and finality are by no means restricted to the human will in Nature: just as the various kinds of being in the nature of things have their own particular kinds of finality, so, too, in the nature of man, who is a microcosm of them all, these various grades of being show forth in his intellect from which he can derive objective moral principles. The proximate objective norm of morality then for man is genuinely rational human nature, adequately considered in all its essential relations. In this way, a man can recognize in himself as an individual, as a social being, and as related to God, that there are some urgent finalities of his nature to which his rational nature as rational is inclined. As a substance,

91. St. Thom., S. Th. I, 18, 3, 1m.

he realizes that self-preservation is right; as an animal, he realizes that marriage and the birth and rearing of children is right; as rational, he sees the necessity for seeking truth, both practical and speculative; as a being dependent upon God, he realizes that religious worship is right, the recognition of one's dependence on God, and finally, as a social being, he realizes that lying, stealing, adultery, etc., are wrong. None of this is arrived at on the basis of instincts alone; these appetites must flow from the appropriate items of knowledge, man's senses and intellect, not his will or his animal sense appetite.⁹²

Indeed, if we were to rest the fixity of moral values on the will and the evolutionary process of instincts alone, no moral principle could ever be really fixed, immutable, or unchangeable, since further human development could always reverse it. Thus, we should be left in a sea of moral relativism, and this would not just be in terms of a moral future, for the present, on this theory, could offer no claims for fixity of moral values either. An individual's moral principles and acts could and never need be the same as the next person's, for his instincts and the circumstances surrounding the acts which he commits would never be rejected in another individual case. Thus, we should have a moral system that could never have any fixity at all.

92. In Aris. Eth. V, 10, 1134b18: St. Thom., lect. 12, 1016, etc.; also St. Thom., S.Th. I-II, 94, 2.

And finally in the sixth place, without the witness of self-consciousness as to the present rightness or wrongness of human acts, we do not see how anyone could really have any moral problems at all, or any morality at all, for that matter, since at the most our concern could only be for what we have done, never for what we are doing, nor even for what we could do in the future, for all is really determined on Professor Strong's view. Morality, then, must eventually turn out to be unnecessary and of little or no consequence at all.

CONCLUSION

In the consideration of Professor Strong's Philosophy, we have seen the following main points: (1) that through his physical method he was led to the psychological position of panpsychism, which in turn, led to his adoption of the epistemological position of Critical Realism as the only way to explain away the apparent difference between mind and body and substantiate the claims of the evolutionary theory of Darwin (2) that the modern theory of will led him to view the key to consciousness as the reaction embodied in an intermediate principle called the datum interposed between knowledge and its object which would functionally convert the truth of appearances into reality (3) that the "self" is to be reached by an interpretation of the data of internal perception pointing to psychic states which become unified by the process of looking for them (4) that the "self" really produces the data which are vehicular and fictively simplify and externalize real objects as substantial and efficacious in space and time (5) that the history of philosophy in yielding Agnosticism and finally Scepticism can only be saved through a theory of Belief or Instinct (6) that time is a series of instants which produce one another and the equal and unequal distribution of these instants of energy constitute the space of bodies, while natural being is ultimately simple animation, energy, or life (7) that

consciousness is formed out of appearances evoking reactions to objects or data, which form the proper object and definition of psychology; that "mind-stuff" is in back of consciousness, which is neither mental nor physical, but under the required circumstances (the evolutionary process) can and does produce both, thus substantiating the fact that ultimately reality is monistic and panpsychic (8) that free will is the unhindered efficacy of willing in which the will necessarily tends toward acts or objectives which fall in a series of contingent or "free" relationships between one another and the will itself (9) that excepting the human will, nature is devoid of purpose, the universe is self-sufficient, that the chance conflict of necessary forces explains sensible objects in their substance and causality (space and time), that the universe is alive (10) that morality is due in general to the fixed tendency of the human will to be happy specified by the current tendencies of evolutionary instincts without the benefit of the witness of self-consciousness.

In criticism, we have explained (1) that his false problem of developing a theory of knowledge which would explain the apparent difference between mind and body, or things they really are and our knowledge of them, grew out of an erroneous method which was untenable in its application and very formulation (2) that the principle of ~~free~~ will does

not close knowledge and its object, since appetite is not the same as cognition, but it is the principle of immateriality; that there is no real evidence for the datum (3) that the existence of the self is reached as a result of reflection on the elements of self-consciousness and not through psychic states being unified through the interpreted data of internal perception (4) that the self cannot be the origin of the data, for this totally subjective explanation seems to eliminate the knower from any objective entry into the real world; that time and space are not the real substance and causality of things (5) that the refutation of universal scepticism through instinct and belief still presupposes the traditional correspondence theory of truth (6) that the present instant of time cannot produce the next instant actually through its active power, but only through its passive potentiality; that his explanation of space demands that present and future instants exist simultaneously; that regarding natural being as animation leads to the philosophically repugnant position of dynamism (7) that consciousness does not have to be interpreted as reaction, for, admitting the reality of self-consciousness on the part of the intellect, the abnormal cases can always be distinguished from the normal ones; that the definition of psychology, as the science of the data of consciousness, may be acceptable from the experimental viewpoint, but not from the philosophical viewpoint; similarly, for "mind-stuff" as a candidate tenet for

a scientific theory; that evolution cannot explain the reason for the specific differences in things, especially between knowing and non-knowing beings, thus giving no support to a monistic panpsychism as an explanation for nature (8) that every act of will, to be sure, is not free or indetermined, since the will must tend toward universal good, while the particular good, owing to its disproportion to the human appetite, is always a matter for free choice (9) that nature is not devoid of purpose, but there is evident finality throughout which is compatible with chance events; that the universe is not self-sufficient, but clearly contingent, and that the universe of sensible objects cannot then be due to chance forces which are alive (10) nor can morality ever have any real stable meaning if the fixed tendency of the human will to be happy must always allow for a change of every specific moral principle in concession to the constant evolutionary process, but rather human nature does have some fixed finalities from which unchanging and unchangeable moral principles may be derived, and finally no system of morality can have any real significance if self-consciousness be ultimately denied.

Turning from this negative view of Professor Strong's doctrines, we now close with some positive observations on what may be considered to be approaching the constructive in his philosophical efforts. In its largest dimension, Professor Strong's position, Critical Realism, was meant as a

general response and answer to Neo-Realism on knowledge. Neo-Realism held to a stubborn and crude identity between knowledge and its object. The response of Critical Realism to this was honest and sincere - such a position could not and did not offer any provision for the explanation of error and illusion, nor did it offer any distinction to the knower, but made it so continuous with objective, sensible reality, that Neo-Realism actually seemed to materialize the mind and whatever could be viewed as belonging to the subject in the knowing process itself. The subjective was really almost wholly converted with the objective in its undoubtedly sincere intention to be objective. Consequently, we must admit to the soundness of Critical Realism's attempt to hold to such objectivity and yet find a way to avoid its difficulties: its resort to a three-term explanation (object-essence-datum) instead of the two-term explanation (knowledge and object alone) seemed to be the only reasonable alternative, Professor Strong's position being only one type of detailed explanation of this third term, the datum. And if we take his position on this point, of the knowledge-object relationship, and suppress many of the lesser details which it imposes, we can divine within it a groping pattern toward toward the real truth, for no matter how false and unsound any philosophical position may be, it still has been thought out and elaborated by a human being whose mind was made for reality itself.

The "datum" of Critical Realism here seems to be a very close approach to the real truth when it is realized that its very establishment and reality was demanded as a critical clearing point to explain away the difficulties in holding to a simple identity between knower and the known. In itself, the "datum" is allowed to comprise and include what is true in the knowledge of reality as well as what is not true. The point of discrimination in this dichotomy between what is true and what is not true constitutes what is peculiar to the Critical Realism of Professor Strong, and the elaboration and development of it forms the very core of the body of his whole system. The response of the organism to reality (as focalized in the datum) critically assures the knower what is true and what is not true in its attempt to gain a faithful access to reality at the various levels of internal and external perception, etc.

Now it is here that we see the pattern of the real truth emerging. For, admittedly, knowledge is not a mere representation; it does not truly consist in the mere reception of a picture, a likeness, or say a "species", of the objective reality. This is merely one of the very important parts of the preparatory stages in the act of true knowledge. And this Professor Strong seems vaguely to realize in rejecting what he calls the "essence-appearances", or "brain events" in what he refers to as the "anoetic phases" of cognition; these cannot be for him the source for the

true cognition of reality itself. In appealing to a further source, the "principle of will" to guarantee the real truth of these appearances, he again can be seen to be veering toward the right position, when it is realized that it is really the "intentional species" in its "cognitum esse" composing with the action or operation of the knowing faculty that formally and outrightly constitutes the truth of the knowledge-act as such. Thus, at the level of intellectual knowledge, it is the concept in the reflective act of judgment which in its "cognitum esse" is identified with the action of the intellect itself (the "intelligere") tending directly to the reality of what is so or not so, which makes and constitutes "logical truth" or the "veritas intellectus". And through this process, if one becomes epistemologically minded for the moment, it can be seen as well that it is the senses also (whether internal or external), when they grasp a truthful knowledge of the sensible world, that it is the sensible species (impressed or expressed; as the case may be) in its "cognitum esse" being identified with their action (the "sentire") which ensures their knowledge of the real world. Although, on their own parts, the senses cannot be said to know this, or contain "logical truth", i.e. the agreement of the mind with reality, nevertheless under the reflective judgment and analysis of the intellect in so doing, their potential capability of doing so can be so discovered, for only the intellect, properly speaking, can

attain truth. Thus, the true doctrine of knowledge demands that the "similitudo" or "intentional species" in its "cognitum esse" combine intimately with the actions of the knowing faculties tending to their respective objects for the correspondence of the knower to the known to take place. All of which is to say that knowledge is formally immanent, but virtually transient.

In this way, on the view of Moderate Realism, error can be explained, and credit can be given to the distinctness of the knower, or knowing subject, from the object. Through the abstractive capabilities of the intellect the normal can always be distinguished from the abnormal, i.e. the essential from the unessential, and the twofold esse resulting from the union of the species with the faculty can mark out what belongs to the subject in the act of cognition and what must be sharply turned to the object in the same act; the entitative esse of the species is clearly subjective - it belongs to the knower, for sensations, perceptions, and thoughts exist nowhere else but in the one knowing, the subject; the intentional or "cognitum esse" of the same species, however, is identified with the action of the knowing faculties themselves, and these actions, above all else, are directed outward to objects - indeed, this is the very raison d'être of their being. Thus, the Moderate Realism of Aristotle and St. Thomas can be immediate and direct, full value can be given

to the subjectivity of the knower as well as the objectivity of the object, and finally error can be explained.

Consequently, if we were to supplant Professor Strong's "will-principle" which on his view performs a function similar to the actions of the cognitive faculties, which we have been recently noticing, we should have a position which would almost consistently coincide with the profoundest details of the doctrine of knowledge in the Moderate Realism of Aristotle and St. Thomas Aquinas. And this, we submit, is the only positive value we can find in Professor Strong's position.

BIBLIOGRAPHY

1. BOOKS BY CHARLES AUGUSTUS STRONG

- STRONG, Charles Augustus, Why the Mind Has a Body, Macmillan, 1903.
- _____, The Origin of Consciousness, Macmillan, 1918.
- _____, Essays on the Natural Origin of the Mind, Macmillan, 1930.
- _____, A Creed for Sceptics, Macmillan, 1936.
- _____, "The Nature of the Datum," Essays in Critical Realism, Macmillan, 1920.

2. BOOKS BY OTHER AUTHORS

- ADAMS, Geo. P., and Wm. P. Montague, eds., Contemporary American Philosophy, Vols. I-II, Macmillan, 1930.
- AQUINAS, St. Thomas, Opera Omnia, Parma, Vivès, 1880.
- ARISTOTLE, The Works of Aristotle, translated into English, J.A. Smith and W.D. Ross, eds., 11 vols., Oxford, Clarendon Press, 1924.
- BARRON, Jos. T., Elements of Epistemology, Macmillan, 1941.
- BITTLE, Celestine N., Reality and the Mind, Bruce, 1936.
- DE CONINCK, A., L'Unité de la Connaissance, Louvain, 1947.
- DE RAEYMAEKER, Louis, Introduction to Philosophy, trans. by Harry McNeill, N.Y., Wagner, 1948.
- DRAKE, Durant, Pratt, James B., Lovejoy, Arthur O., Rogers, Arthur Kenyon, Santayana, George, Sellars, Roy W., Strong, Charles A., Essays in Critical Realism, Macmillan, 1920.
- GARRIGOU, LaGrange, R., O.P., Dieu, Son Existence et sa Nature, Paris, Beauchesne, 1928.
- HARLOW, Victor E., A Bibliography and Genetic Study of American Realism, Harlow Publ. Co., 1931.
- JAMES, Henry, Letters of William James, edited by his son, The Atlantic Monthly Press, 2 Vols., 1920.

JAMES, William, Pragmatism, Longmans, Green and Co., 1907.

_____, The Will to Believe and other Essays in Popular Philosophy, N.Y., 1897.

HOLT, E.B., Marvin, Walter T., Montague, Wm. P., Perry, Ralph B., Pitkin, Walter, Spaulding, E.G., The New Realism, Macmillan, 1912.

MARITAIN, Jacques, The Degrees of Knowledge, London, Centenary Press, 1937.

_____, Reflexions sur l'intelligence et sur sa Vie Propre, Paris, Nouvelle Librairie Nationale, 1924.

OTTO, M.C., Philosophy Today, ed. by E. L. Schaub, Open Court Publ. Co., 1928.

REGIS, Jolivet, La Notion de Substance, Paris, Beauchesne, 1929.

ROSS, W.D., Aristotle, Methuen, 1923.

ROYCE, Josiah, California: a Study of American Character, Columbia University Press, N.Y., 1946.

_____, The Conception of God, N.Y., 1897.

SCHNEIDER, Herbert W., A History of American Philosophy, Columbia University Press, N.Y., 1916.

KANE, W.H., Corcoran, J.D., Ashley, B.M., Nogar, R.J., Science in Synthesis, Dominican College of St. Thomas, River Forest, Ill, 1952.

SELBIE, Willlliam Boothby, The Psychology of Religion, Oxford, Clarendon Press, 1924.

SMITH, Gerard, Natural Theology, Macmillan, 1951.

SPAULDING, Edward, G., The New Rationalism, N.Y., Holt Co., 1918.

3. PERIODICALS

BOODIN, John E., "The New Realism", in Journal of Philosophy, 1907, p. 533.

COHEN, Morris, R., "The New Realism", in Journal of Philosophy, 1933, p.214.

MACINTOSH, Douglas C., "Is 'Realistic Epistemological Monism Inadmissible'?", in Journal of Philosophy, 1913, p. 701.

MONTAGUE, William P., "American Neo-Realism", in Journal of Philosophy, 1921, p. 121.

Abstract of the Thesis:

THE PHILOSOPHY OF CHARLES AUGUSTUS STRONG

by Ralph F. Becker

This thesis is divided into six chapters. In these chapters are discussed the views of Professor Charles Augustus Strong, a man who devoted almost the whole of his life mainly to the study of the question of human knowledge. Educated in both the United States and Europe, he later taught at many universities in the United States and stood for a doctrine which was basically voluntaristic in the explanation of human knowledge and reality itself.

In the first chapter, we undertake to study the movement of Professor Strong's thought from Panpsychism, the psychological solution which he gave to the mind-body problem, to the philosophical and epistemological position of Critical Realism, which stood for him as its ultimate and complete justification. Before going into the details of this matter, however, we study the emergence of Critical Realism in America, for Professor Strong was but one of a group with a specific interpretation of their general approach to the question of knowledge. For the Critical Realists maintained that there should be a third factor between knowledge and its object, the datum, to guarantee the conformity between what we know and what is. The group against which they

were arguing was the Neo-Realists; they took the stand of a complete identity between knowledge and its object. The one individual who was responsible for the Realism of both groups, however, was William James at Harvard, under whom many of them studied. It was mostly due to James with his voluntaristic, but realistic, approach to philosophical matters, especially on the score of human emotions, which led Professor Strong to enlarge this doctrine and apply it to the whole area of philosophical subjects. And it was this same principle of voluntarism which he used to give his specific interpretation to the role of the datum in the realm of human knowledge, which was in general advocated by the Critical Realists.

In Chapter II, there are put forth the arguments which Professor Strong deems to be conclusive enough to demand the recognition of a third principle, a bridge so to speak, between knowledge and its object. This is the "datum." The arguments he uses are based on cases wherein the act of knowledge is in disconformity with objective reality, i.e., the errors and hallucinations met with in sense perception. The one character of the datum which guarantees the conformity of the act of cognition with reality is the reaction or response of the total organism to the object; so, we know as we grasp the apparently bent oar partially immersed in the water that it is really straight. Thus, the apparent essences of objects given in the first stages of

perception are verified as real through behavioristic response. Furthermore, just as there is something more between knowledge and its object in external perception, i.e. a datum, so, also in internal perception, the data, instead of pointing outward to external objects in external perception, they may be seen to point inward to feelings. This constitutes the field of internal experience, wherein the different, serial, or atomic states of the self or feelings are first met with. Under further analysis, there are discovered herein so-called "psychic states", such as the after-image left in vision after seeing a bright light, etc. In reacting to all these serial psychic states the unified ego is constituted, and the self is functionally produced. There is no self-consciousness, for "to know" is one thing, and "to be known" is still another thing.

The self is the origin of the data and characterizes the known objects, reached through the data via essence-appearances or the representations in knowledge, with simplicity and externality. In this way, the serial nature of material reality is smoothed out into unity and the knower is at the same time vehicularly brought to it as out there; so, we touch the pock marks of a surface as smooth, and our action, or better reaction, of touching brings the knower to it as out there as an object which has substance (space) and causality (time), or full objective reality. Consciousness really amounts to this

motor-response or reaction offered in the datum, and Professor Strong regards this as the solution to Agnosticism and Scepticism. It is the solution to Agnosticism insofar as by these will-acts in the data, the mental appearances, proposed by Agnosticism as the only knowable realities, can be guaranteed to be true of what is beyond the knowing subject. It is the solution and answer to Scepticism insofar as putting all knowledge into doubt reveals that in the last analysis we cannot live that way, our instincts rebel against it; thus, instinct or belief is at the basis of truth, of which consciousness is but a manifestation.

In Chapter III, we study Time, Space, and Being. For Professor Strong, Time is a series of instants in which only the present instant is real, for the instants of the past and the future can never be truly present; the present instant contains the future instant in its ability (*pouvoir*) to actually produce it (*puissance*). Space is merely the result of the unequal distribution of energies in these instants producing other instants in terms of points. All of these views, however, must be open to revision in the face of the information of the physical sciences; so, Professor Strong advances his theories here with the least confidence. The nature of being, therefore, in the last analysis is nothing else but energy, force or "animation", as he terms it. And this, in Professor Strong's view, is another

manifestation of instinct or belief.

In Chapter IV, we take up Consciousness and Free Will. Consciousness is again seen to be most explicitly the motor-response of the organism converting the essence-appearances of objects into a truthful knowledge of reality. The failures of Phenomenalism, Scepticism, and Agnosticism must find their true solution and stability in this view. Phenomenalism fails to account for errors in holding to a naive identity between objects and their representations in knowledge, while Scepticism in drawing the implication from this that there is no truthful knowledge at all, and Agnosticism's attempt to install the infallibility of subjective appearances are the evident consequent logical absurdities which must issue forth from such a view. Even the definition of psychology should be interpreted in this light, as the science of the data of consciousness. Physiological Physics should concern itself with the details of the "brain-events" involved in the biological phases of cognition, while Logic should consider the essence of the object without regard to its being a datum (when it becomes a truthful object of cognition). But beyond the datum, instinct, confidence, belief, and will itself, is the substance which makes all these realities possible to come forth under the requisite internal and external circumstances, "mind-stuff". Thus, the mind can be conceived as a

fit object for evolution. "Mind-stuff" is neither mind, nor matter, but something mid-way between.

Facing the fact that freedom exists, Professor Strong attributes freedom of will to the unpredictable variety of objects which course before the necessary action of the will in a chance-like fashion. Since they are contingent the will is not determined, but free.

In Chapter V, we treat the "ultimate destiny of man", i.e. his views on morality. He regards as facts that Nature is indifferent, purposeless, self-sufficient, and a chance-conflict of forces. However, the universe is alive, but there is no spiritual, conscious being responsible for it, for the evils in the world even add to the point, that mind is not at the base of Nature. Hence, the natural wildness of Nature cannot allow the source for fixed moral values to rest in human nature; such values can only be due to social custom and tradition, coming from individuals in a free community. As free, they try to strike a logical balance in the holding of old laws and the framing of new ones in the face of their violation and adherence. Moral values can only be fixed in virtue of the fact that the human will in general to be happy is fixed, and this becomes specified through the current manifestations of instinctive tendencies currently being evidenced by the details of the evolutionary process.

In Chapter VI, we meet the difficulties and contradictions involved in Strong's philosophy. We observe first that his method, problem, and principle are erroneous. His method which identifies soul and body involves the deepest empiricism, which renders his resulting problem, the explanation for the nature and origin of cognition in this light, completely unnecessary; finally, his principle of will is a gross confusion of appetite with cognition, the true principle of cognition being immateriality.

All the cases which he appeals to as evidence for the so-called, third principle, the datum, can all be answered on the basis of the immediate realism of Aristotle and St. Thomas, which utilizes the "species" or "intentional form" to explain the process of cognition in the presentation and, where required, the representation of the known object to the knowing subject, all error being per accidens.

Moreover, his explanation for the "self" or "ego" through the data of internal perception pointing to feeling is erroneous, since perceptions do not become known to the degree that they are referred to feelings, for nothing is desired unless first known. Rather, the "self" is reached by a different route, i.e. through the concrete admission of a substantial ego underlying the observed accidental modifications of the various changing thoughts, volitions, etc.

Furthermore, in ascribing simplicity and externality of objects to the data produced by the "self", no facility is really given to knowledge to burst through the subjective to the objective, but all seems to be really still subjective on Professor Strong's explanation. And in attributing to space and time the fundamental substance and causality of physical objects, the basic meaning of substance and causality has been grossly misunderstood and confused with accidentals, along with the further confusion of calling causality a creative process. Also, his refutation of universal scepticism through an appeal to the will is erroneous, since there is always priorly on the intellect's part the specific capacity to know its object, being.

There is as well a confusion on Professor Strong's part of philosophy with experimental science, which leads him to give only tentative explanations for Time, Space, and Being. He regards Time as the present instant producing the future instant, giving an explanation which seems to make both exist simultaneously, whereas in reality the present instant contains the future instant in passive potentiality. Moreover, in referring the nature of space to the equal and unequal distributions of energies at points, his explanation here not only seems to confirm that the present and future instants must be on his view simultaneous again, but also the whole reality of extension seems

to be destroyed or at least unaccounted for. And finally, in ascribing the root of natural being to animation or energy, his philosophy of nature seems to terminate in a radical dynamism, suffering all the traditional arguments against such a stand.

In dealing with Consciousness, Professor Strong rightly rejects Phenomenalism, Agnosticism, and Scepticism, but wrongly regards representation combined with the instinctive response of the total organism as being the true solution. For on the level of knowledge alone, the intellect can always distinguish between appearance and reality, and perceive the conditions required for the truthful cognition, on the part of the knower, the known, and their relation, in both the senses and in the intellect's own domain itself.

Moreover, the definition of psychology as the "science of the data of consciousness" may be perfectly acceptable from the experimental viewpoint, but from the philosophic viewpoint, which deals with the ultimate principles, natures and essences of things, it is not very respectable. Along with this, "mind-stuff" may form the tenet of a proposed scientific theory, but in the philosophic line it is self-contradictory, being simultaneously active and passive.

As far as human freedom is concerned, it certainly is a basic mistake to say that the will is necessarily determined in its action, but becomes free in the sense that its acts

attain objects which range before the mind in a chance-like, contingent, or free action. For, in reality, the truth is that the will is necessarily determined to the universal good, through the spiritual intellect's ability to know being as such, becoming free only in the face of what is less than that, the particular good. Consequently, there is no mere difference in degree for freedom in men and brutes, as he upholds, showing that in the last analysis here the error seems to be his openly admitted Nominalism, for it is owing to his spiritual character, or intellectual nature, that man enjoys freedom.

Finally, in explaining Morality, Professor Strong is not right in initially holding that there is no purpose in Nature, that the universe is self-sufficient and alive, for clearly finality does exist in nature, as can be seen both a priori and a posteriori, the universe is contingent, requiring a First Necessary and Intelligent Cause (God), and the whole universe certainly is not alive, if we respect the distinction between immanent and transient action. Morality is, therefore, not due, to what he regards as the only case of finality in Nature, the fixed tendency of the human will to be happy as specified by the current manifestations of the tendencies of evolutionary instincts, but rather is based on the finality flowing from the fixed essence of human nature. Moreover, there can be no real morality without self-consciousness, which Professor Strong rejects.

