

FREDERICK MATTHIAS ALEXANDER AND JOHN CENSY

A NEGLECTED IN FLUENCE

by ERIC DAVID McCORMACK







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A Thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy in the University of Toronto



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FREDERICK MATTHIAS ALEXANDER AND JOHN DEWEY:

A NEGLECTED INFLUENCE

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THESIS

FREDERICK MATTHIAS ALEXANDER AND JOHN DEWEY:

A NEGLECTED INFLUENCE

(Abstract)

In his eightieth year John Dewey said that he owed the concrete form of certain of his ideas to contact with the work of F. M. Alexander and his brother, A. R.*Alexander. These ideas, previously held abstractly, were his "theories of mind-body, of the coordination of the elements of the self and of the place of ideas in inhibition and control of overt action." Since only two of his books, <u>Human Nature and Conduct</u> (1922) and <u>Experience and Nature</u> (1925), mention F. M. Alexander's name, and then only in footnotes, this thesis proposes to investigate the nature and effect of Dewey's contact with the Alexanders and their work. Other references to Alexander in Dewey's published writings have been sought, and inquiry made into his association with the Alexanders. The first chapter of the thesis outlines the problem and the method of procedure followed.

The second chapter gives a brief account of the life and writings, of F. M. Alexander, and of the general features of his doctrine. Born in Tasmania in 1869, he taught and practiced elocution in Melbourne and Sydney, Australia. A throat difficulty which resisted medical treatment led him to seek its causes for himself. This search led him to a physiological discovery upon which his subsequent theory and practice were erected. On the recommendation of doctors, he went to London in 1904, where his ideas won him significant attention from theatrical people and some prominent physicians. His first book, Man's Supreme Inheritance, was published in 1910. Before this time his writing had been confined to sporadic newspaper articles and pamphlets of a controversial nature. In 1914 or 1915 he came to the United States, began teaching his technique, and published a second edition of his book which was introduced by John Dewey. Three other books followed, in 1923, 1932, and 1941, respectively, to two of which Dewey also wrote introductions. Alexander returned to England in 1943, and remained there until his death in 1955. A. R. Alexander, whose role was simply that of a practical teacher of the method, came to America in 1935 and returned to England in 1945, the year in which he died.

Alexander's technique is built on the physiological premise that the integrated activity and consequent well-being of the psycho-physical organism depends upon the maintaining of a certain functional relationship between the parts of the organism. This relationship, which is his "discovery", he first called the "position of mechanical advantage," and later the "primary control of use." It consists basically in a headneck-torso coordination which insures correct "use of the self." The physiological aspect of Alexander's method was later connected by his medical patrons with the work of the Dutch physiologist, Rudolph Magnus, and still later with that of the American biologist, George E. Coghill, who introduced Alexander's last book, <u>The Universal Constant</u> in Living (1946).

Although Alexander maintained that the practice of his technique constitutes a preventive of most or all diseases, he drew conclusions which extend far beyond the physical level. He held that his discovery proved that mind and body were not separate entities, that his method promoted moral progress, and that its universal application, especially to the education of the young, was the prerequisite for the survival of civilization and for further evolutionary progress.

Specific points of his doctrine are that present conditions of civilized life have rendered man's instincts and sensory equipment congenitally unreliable, largely through incorrect postural habits which these conditions have imposed. These rigid habits have not only substituted conflict and tension for coordination in man's actions, but have impaired his judgment at all levels, intellectual and moral as well as sensory. Since the operation of these habits is automatic and "below the plane of consciousness," they cannot be altered by direct voluntary acts. This is because such acts and the judgments from which they issue are framed in the false terms of the very habits which are to be remedied. The only way out of this vicious circle is to inhibit all habitual activity and at the same time set about reinstating the "primary control" at the basic, physiological level. One must concentrate not on the end to be gained in executing a given act, but, in Alexander's terminology, on the "means-whereby," Once the "primary control" is established, it becomes the most basic of all habits, the framework within which all other habits are formed, and according to which all acts are performed. It is the fundamental, integrating principle of action and thought, and the ultimate governing factor of all "means-whereby", and of the conscious control of man's actions. The present stage of evolutionary development requires that his actions be brought at least indirectly under conscious control, since instincts which were reliable in former, less complex situations are now no longer adequate, and are even perverted. The "debauched sensory appreciation" of modern civilized man is proof of this.

Dewey encountered F. M. Alexander and his teachings at a moment in his life which was critical both personally and doctrinally. In Alexander's terms, he was badly coordinated physically, and he had undergone a personal crisis in connection with his views on World War I. Doctrinally he was at a turning point in his philosophical development. The newer physiological psychologies, especially the behaviorist movement initiated by John B. Watson, the new social psychology, and the ethical issues connected with and following upon World War I were among the influences which caused Dewey to re-think his philosophical position at this time. This turning point, which has been noted by Ratner and Allport, the thesis places between the years 1915 and 1919, the period of Dewey's first meeting and early association with F. M. Alexander. This background material occupies the third chapter.

The fourth chapter compares some of the essential doctrines of

Man's Supreme Inheritance (1918) with Dewey's Human Nature and Conduct, the substance of which was presented in a series of lectures at Stanford University in 1919. Alexander's ideas are not only discernible in this latter work, but he is named as the source of a theoretical position which Dewey adopts on habit, voluntary action and related questions. Although the theme of Human Nature and Conduct is much broader than Alexander's psycho-physical theories (Dewey called it "An Introduction to Social Psychology"), nevertheless the discussion revolves around the notion of habit in each of the three parts of the book. Alexander's influence on various issues, in addition to Dewey's express identification of it, is pointed out. The priority of habit to right activity leads to a discussion of habits of sensation in relation to knowledge and thinking, touching incidentally on the mind-body relation, a discussion of means and ends in action, the relation of habits to character, and the socio-ethical nature of the latter. Habit, earlier considered by Dewey to be constitutive of mind and, in its operative aspect, of intelligence, is now declared to constitute will. By providing a technique whereby rigid, unthinking habits can be brought under integrated, flexible, conscious control, Alexander seems to have enabled Dewey to see more concretely how readjustements to environmental considerations, physical, social, and even moral, might be effected.

In the fifth and final chapter the importance of some aspects of Alexander's doctrine for Dewey's philosophy is taken up. Particular attention is given to two basic theses of Alexander which, is cientifically warranted, would have far-reaching implications for the whole of Dewey's thought. These are (1) that all or most of the civilized world suffers from faulty and deceptive "sensory appreciation," and (2) that there exists in man a basic integrating mechanism which normally would coordinate

all bodily activities, and which Alexander discovered, described, and employed in his technique. The contention that the sensory equipment of civilized man is

seriously impaired has important implications for the doctrine of Human Nature and Conduct. Sensations and perceptions are integral factors in cognition and judgment, so that defects in the former imply correlative defects in the latter. Further, if conduct is moral and essentially social, then civilized society is laboring under serious defects, and is by the nature of the case perpetuating them. In some of his writings Dewey inclines to support Alexander's assertion that unless modern man rectifies his sensory appreciations and brings his actions under conscious control, civilization cannot survive. Yet Dewey shows sustained interest in having the incidence of these sensory defects investigated by traditional scientific techniques. Likewise, he is cautious about committing himself to the existence of the "primary control" until men of accepted scientific status connect it with the laboratory researches of Magnus which showed a similar mechanism in lower animals. It is probable that Dewey's enlistment of orthodox scientific resources was in the interest of promoting the communicability and development of the technique, rather than for the purpose of demonstrating its validity.

Especially from 1923 onward, Dewey insisted on the strictly scientific validity of Alexander's discovery and method. In declaring the technique scientific, he appears to mean no more than that it satisfies the "five steps" characteristic of any valid inquiry. Stressing the necessity of direct (i.e., sensory) observation, he points out that scientists themselves can perform no reliable observation if their sensory appreciation is unreliable. Hence there is need for universal application of Alexander's principles, which "bear the same relation to education that education bears to all other human activities."

In addition to defending Alexander's principles, Dewey incorporated some of them into the texture of his philosophical thinking. Traces are discernible as late as 1939, in the <u>Theory of Valuation</u>; but <u>Experience</u> and <u>Nature</u> (1925) shows Alexander's influence most extensively, often in Alexander's peculiar terminology. That science and civilization are at the mercy of chance until the self is correctly understood and coordinated, that meanings and ideas are dependent on correct sensory appreciations and inhibitions, that man must henceforth operate on the "plane of conscious control," that "end-gaining" in terms of "subconscious feeling" is fallacious, that mind and body are continuous through organic habit--all these propositions are discussed in language redolent of Alexander.

Knowledge itself seems to be under grave challenge if Alexander's thesis about sensation is correct. One dilemma that appears is that if knowledge is tested by consequences, it must be tested in terms of knowledge already acquired. What then is the test of these habits ? If one asks what warrants the antecedent conditions of knowledge as Alexander states them, the reply that consequences do this seems no adequate answer, since it is the <u>meaning</u> of the consequences that is in question. When Dewey's view of the social character of knowledge and science is recalled, the dilemma appears more serious.

The incommunicability in words of the new type of sense experience involved in Alexander's technique constitues a further difficulty, which not only retards the spread of the method, but also its acceptance as scientific. Dewey acknowledged this incommunicability, and also asserted that the method was scientific. It is suggested that the apparent discrepancy between these two statements accounts in part for Dewey's hesitation to commit himself more completely to Alexander's theories in his books, and accounts also for his constant efforts to establish scientific communication about the technique, and to have it linked with the relevant body of established scientific knowledge.

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CHAPTER I

INTRODUCTION: THE PROBLEM

In the year 1939 John Dewey is recorded as having said:

My theories of mind-body, of the coordination of the elements of the self and of the place of ideas in inhibition and control of overt action required contact with the work of F. M. Alexander and in later years his brother, A. R., to transform them into realities.¹

This remark is set in a significant context, in which Dewey's intention is to describe his general approach to philosophical problems, as he saw that approach in retrospect at the close of the eighth decade of his life. Before the passage just quoted he had said:

I have usually, if not always, held an idea first in its abstract form, often as a matter chiefly of logical or dialectic consistency or of the power of words to suggest ideas. Some personal experience, through contact with individuals, groups, or (as in visits to foreign countries) peoples, was necessary to give the idea concreto significance. There are no ideas which are original in substance, but a common substance is given a new expression when it operates through the medium of individual temperament and the peculiar, unique incidents of an individual life.²

The allusion to F. M. Alexander and his brother, A. R., in Dewey's summary account of his philosophical procedure raises a question which seems so far to have had no extended answer: What is the nature and the discernible effect of this contact with the Alexanders on Dewey's philosophical thought? Accordingly, the problem of this thesis is to explore this question with a view to discovering whether there are pervasive elements in Dewey's developing thought which, if not altogether originating in notions derived from 8

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the Alexanders, were at least given "concrete significance" and "substance" by these notions. To the extent that he has stated the general course of his development and illustrated it with a particular example--contact with the Alexanders--Dewey himself may be said to have indicated the problem. Its challenge seems heightened when, as will be seen in a wider perspective in what follows, it is realized that at the time Dewey made these observations he was still taking lessons in the Alexander technique from A. R. Alexander. This was some twenty-four years after his first meeting with F. M. Alexander, and twenty-two years after he had written his enthusiastic 'Introductory Word' to the American edition of the latter's first book, <u>Man's Supreme</u> Inheritance (1918).

Dewey seems clearly to be saying that his contact with the Alexanders, at least during the period just noted, was in some way responsible for the concrete expression--for the "reality"-- of a certain number of his philosophical theories. Since in his published writings Dewey has left us no extended or detailed account of how this influence operated, nor of the full extent to which it was effective, any attempt to give account of it now must be by way of reconstruction from available sources. Such a reconstruction is obviously a venture beset by many pitfalls. To state its method, then, and to review its dangers and inherent shortcomings, is plainly a task prerequisite to setting in motion any process from which valid results may be expected.

Several alternatives are available as starting points



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each of which will determine in a different manner the character of the outcome. One might begin, for example, by gathering together all the statements in Dewey's published writings in which explicit reference is made to the Alexanders and their technique, expecting by means of these to illustrate the concrete application of the schematic form of the theories mentioned by Dewey in giving credit to the Alexanders: mind-body, coordination of the elements of the self, and the rest. For all its objective appearance, however, and despite its evident necessity as a step to be taken, this method alone can yield no useful results. Not only would it be but partially reliable, but in some respects positively misleading. The reasons for this will be examined in their appropriate place below. Here, because of what has already been quoted from Dewey, it suffices to point out that, in speaking of the effects of the Alexanders' work on his theories, he is referring primarily to contact through personal experience, and not merely to their writings nor to his own. The nature of this contact through personal experience, especially in this case, must be discovered as far as possible and taken into account.

Another possible starting point would be to summarize the principles and teaching of F. M. Alexander in relation to his practical program, and to compare them with the relevant points in Dewey's philosophical thinking during the period of his association with the Alexanders, seeking thus to disclose the details of the influence which Dewey has so broadly acknowledged. Once again, although

something of this sort is a necessary step to be taken, it likewise omits the "medium of individual temperament and the peculiar, unique incidents of an individual life" through the operation of which, Dewey says---presumably also in this case---new expression was given to the common substance of his ideas. Preoccupation with this method would also tend by its nature to relax control on the construction of unwarrantable inferences, owing, as regards the published writings of both men, to the very lack of data which raises the question to which this thesis hazards an answer. The danger here is that of moving into the position censured by Dewey in his 'Introduction' to F. M. Alexander's Constructive Conscious Control of the Individual (1923):

If ... a chemist pointed, on the one hand, to a lot of concrete phenomena which had occurred after he had tried an experiment and, on the other hand, to a lot of general principles and theories elaborately reasoned out, and then proceeded to assert that the two things were connected so that the theoretical principles accounted for the phenomena, he would meet only with ridicule. It would be clear that scientific method had not even been started; it would be clear that he was offering nothing but assertion.³

In this same 'Introduction' Dewey had just said,

I unhesitatingly assert that, when judged by this standard-that is, by a principle at work in effecting definite and verifiable consequences--Mr. Alexander's teaching is scientific in the strictest sense of the word. ... The plan of Mr. Alexander satisfies the most exacting demands of the scientific method.⁴

Moreover, Dewey has given over a considerable part of this essay to discussing the general structure of scientific method, and to showing that the theory and practice of Alexander are in conformity with it. Accordingly, some interpretation of these statements must be given in



what follows, since Alexander's thesis-even at the purely physiological level--was not always accepted by men of science as scientifically validated, though there were significant exceptions, as will be seen.

A further point, derived from this one, into which inquiry must be made, is that of the kind of use to which Dewey put Alexander's ideas. Dewey does not consider the method of experimental science and that of philosophy to be identical, so that a further question must be asked: Is there a philosophical area in Alexander's theories, which Dewey may not intend to endorse in its entirety, at least as validly derived from Alexander's findings? On the other hand, it will be shown that Dewey accepted not only the physiological--or psychophysical--part of Alexander's work, but that he generalized some aspects of it and absorbed them into his philosophical thinking as "leading principles". The consequent elusive character of the Alexandrian influence and the varying degrees in which it can be identified with assurance have made it necessary to select instances of it rather than attempt a more comprehensive account. The scope of the present study justifies this, since its primary purpose is to show that Alexander's ideas did influence Dewey, not only in the ways in which he said they did, but in other, more general ways as well. This makes it necessary to weight the background rather than the foreground, so to speak.

In the writings of Alexander, as well as in the publications of his Foundation and its often learned and distinguished promotors, there is constant appeal to Dewey's statements about the



technique. Yet, apart from the introductions Dewey wrote for Alexander's first three books,⁵ which are not now widely read even among those most interested in Dewey's philosophy, there is surprisingly little said elsewhere in his published writings which deals explicitly with Alexander's principles. What is surprising in this is the seeming sharp disparity between the vigorous character of these introductions -the unconditional endorsement of the strictly scientific nature of the principles, the insistence on their fundamental position in human experience and education, on the necessity of their universal application if civilization is to survive, and on their unquestioned effectiveness as borne out in his personal life--and the fact that elsewhere Dewey mentions Alexander only five times. Part of the problem of this thesis, accordingly, is to offer some explanation of this disparity, since even on the surface it is much too great to be written off as a mere inconsistency, or to be accounted for by simply dismissing the introductions as instances of Dewey's well known generous encouragement of worthy new ventures.

The first step toward this end, plainly, was to explore more fully the relations between Dewey and the Alexanders, in order to see what additional information was available. This began with an inquiry into what Morton White has called the "extra-intellectual reference" of Dewey's development, recognizing it as a necessary factor in explaining changes in this development accountable by "men and events" rather than by books.⁷ As has been pointed out above, such

a reconstruction of personal contacts is essential to the method of the present inquiry, to supply the deficiencies attendant on more formal, analytic procedures externally applied to written texts which were not intended to provide a comprehensive record of Dewey's development. By thus filling out the context of Dewey's thinking over a considerable period of years with material which is relevant, but hitherto scattered or not otherwise available, the writer has been able to exhibit a neglected current in Dewey's thought.⁸

Notwithstanding Dewey's arresting statement quoted at the outset of this chapter and his other references to Alexander by name. very little has been done by way of investigating the connection between these two men. although allusions to this connection abound. All that has so far appeared in print is a three-page article in 1943 by Dr. Frank Pierce Jones, then of Brown University, in School and Society, entitled, 'The Work of F. M. Alexander as an Introduction to Dewey's Philosophy of Education.'9 Dewey read and approved this article before its publication. In addition to this. in 1948 Dr. Colin Murray Turbayne wrote a paper under the title. 'John Dewey and F. Matthias Alexander. Dewey read this study also, and wished it to be published in The American Scholar. Cn May 17, 1948 Dewey wrote to Turbayne: "I'd like to send them [sc. the editors of The American Scholar your article to show my endorsement of the Alexander principles." However, this paper did not appear in print, although it was later duplicated by The Alexander Foundation at Media, Pennsylvania, and



privately circulated.

One other study, although not an explicit comparison between the work of Dewey and that of Alexander, merits notice here because of its connection with the foregoing. This is, 'A New Field For Inquiry,' by Frank Pierce Jones, privately published in mimeographed form in January, 1948, and prefixed by a letter from Dewey to Jones which contains much significant comment.¹² This article had likewise been submitted to <u>The American Scholar</u> at Dewey's suggestion, but was not printed. Mention is made of it here because it is the only other known study which comes close to our present investigation, and because in the communication to Turbayne quoted above Dewey refers to its rejection by Phi Beta Kappa's journal, <u>The American Scholar</u>.¹³

As late as 1947 and 1948, then, Dewey was genuinely concerned to attract notice to Alexander's work, supporting it with his personal and professional experience. But this support was loaned to those working on the side of the Alexander technique, and was not expressed spontaneously in his own works after 1929.¹⁴ The reasons to be hazarded for this reticence can be seen best as they appear in their proper place in the context of what lies ahead. Yet, since they have had some effect on the preparation and organization of this study they must be mentioned here, proleptically and unsupported. These are (1) the impossibility of adequate verbal communication with regard to the basic kinaesthetic experience upon which Alexander's whole structure is erected, and (2) the need for a further and more specific kind of

. scientific validation of the principles and practice of the technique, which need Dewey appears to have felt as time went on.

The difficulty of giving verbal expression to elemental organic and kinaesthetic experiences is a commonplace, not only in psychology but in everyday experience as well. In the present undertaking, however, we are met with an even more formidable obstacle. It is Alexander's position that in the case of most people these "sensory registers" provide incorrect information to their possessors; their powers are "debauched".¹⁵ Thus even adequate verbal communication in terms of ordinary conscious experience, supposing it possible, would be of no use. Such communication would merely give and take false information. The correct sensory experience must be given physically to one who would have it, by manual manipulation on the part of one who is competent to do this.¹⁶

That this position is on its surface suggestive of the occult and esoteric has often been noticed by critics;¹⁷ indeed, one or the other group of Alexander's followers has shown a tendency to develop the technique in that direction. Fair investigation, however, should take one directly to facts wherever possible, rather than to others' reports of facts. This is particularly true in this case, where reports as such are declared to be misleading. With this in view, the writer has availed himself of an opportunity--a regrettably limited one--to have a few beginning "Lessons" from a teacher of the technique of whose qualifications Dewey heartily approved, Dr. Frank Pierce Jones.¹⁸ The
result has been a dim but certain awareness of the basic experience described in Alexander's books, although the writer wishes it to be clearly understood that in the thesis which follows, no weight whatever has been rested on this small and slight beginning. It has, however, prevented him from making two types of insufficiently supported judgments: those of a negative sort which can so readily be prompted by Alexander's peculiar exposition of his technique, and those affirmative judgments which can be made only by one well grounded in the principles involved.

The plan of the thesis is sufficiently indicated by the Table of Contents. A more detailed outline had been enviseged, but was abandoned when it became apparent that schematization tends to do violence to the presentation of Dewey's thought, and, a <u>fortiori</u>, that of Alexander. If one wishes to follow Dewey on any of his philosophical journeys, one must travel as he does if one expects to remain within earshot of what he is saying. Less figuratively, if one reduces to a finely articulated system, what Dewey has said in any of his later works, one is left with that system, but without what Dewey was attempting to say. This is even more true of Alexander. For this reason we have allowed both men to speak for themselves at greater length than is perhaps usual in such a study as this, preserving their own development of issues discussed wherever this was feasible, rather than devising and imposing upon them an alien plan.

Two final points regarding the procedure followed in the sequel require mention in this Introduction. One is that the

writer has seen no need to refer to his own philosophical position in treating questions which he sees as raised in and by their proper context. A steady attempt has been made to view these questions and what appear to be their consequences from within that context, and not to evaluate them from outside. The other point concerns the intention which has regulated the treatment of these questions. Primarily, this intention was to point out a significant current in Dewey's thought which has not yet had the attention which it merits. within the limits imposed upon the writer by space, time, and various other circumstances, little more could be done than to indicate as problems some of the offects which Alexander's teachings had upon Dewey. In some instances, these problems have been delineated to a greater or lesser degree. In others, fewer in number, solutions have been proposed, or the direction in which they might profitably be sought has been suggested. At all events, a field of inquiry has been roughly mapped cut, in which much work remains to be done.

CHAPTER II

FREDERICK MATTHIAS ALEXANDER

1. Life and Writings.

Frederick Matthias Alexander was born on January 20, 1869, at Wynyard, on the northeast coast of Tasmania.¹⁹ As an infant he was not expected to live, and as a boy he was a semi-invalid. Ill health prevented his attending school, so that he was privately educated, a fact which seems to have reinforced the lively spirit of inquiry and independence later so characteristic of him.²⁰ He never attended a university.

At an early age he went to Melbourne, Australia, where at first he held various positions in offices. As a young man he became interested in verse speaking in the theatre. He studied and had some success as an elocutionist and dramatic interpreter of Shakespeare. This activity gradually absorbed the greater part of his interest, and finally led him to decide upon it as a career.

In his early twenties, when his public recitations had brought him some measure of success, he began to experience trouble with his vocal chords, and then with his breathing. These difficulties appeared only while he was engaged in public speaking, and not in ordinary conversation. Anxiety over this threat to his professional aspirations led him to seek the advice of physicians and teachers of voice culture. This professional attention brought him only temporary



relief, however, and on a critical occasion for which he had been prepared under medical direction, assured that his voice would be normal, his voice failed him. From this he concluded that his difficulty must be caused by something which he himself was doing in the use of his voice. Rather than seek further medical assistance, he decided to set about discovering what this supposed mistake of his was. This decision marks the first step in the new career which was to involve him in so much controversy in later years, although at the time it appeared to him merely as an attempt to solve a particular problem: to recover his speaking voice.

Since the steps which followed this first one constitute the method by which Alexander made his discovery and developed it, more attention will be devoted to its details in the section which follows. Here it is sufficient to note that Alexander was convinced that his investigations on himself and his manner of speaking, conducted before mirrors, had shown him, first, the cause of his difficulties in speaking and in breathing, second, had enabled him to devise a method for correcting these, and finally, that he had come upon a basic physiological principle which opened up an altogether new horizon:

This knowledge came to him in his early attempts to deal with a specific voice trouble. ... He discovered that a certain use of the head in relation to the neck, and of the head and neck in relation to the torso and other parts of the organism, conditione all other reactions, and therefore may be said to constitute a central or, as he prefers to call it, a <u>primary</u> control. Mr. Alexander has found that to employ consciously this primary control of use is to come into command of a means whereby the general working of the organism can be improved, and as an

indirect result of the whole procedure, an improvement in the working of special parts and in general functioning brought about. On this foundation the New Technique rests. 21

Alexander made his fundamental discovery in 1892, in

Melbourne, where he was teaching elocution and voice culture as well

as giving public performances. 22

Seeing in his pupils in some degree the same bad habits of use he had observed in himself, he decided to make his discovery the basis of his teaching, and he soon found that when a pupil had learned to prevent the misuse of his head in relation to his neck and back, he, too, obtained an improved control over his voice. What was more significant, he noticed both in himself and in his pupils that the improvement did not stop with the voice, but extended to every function and activity. Apparently he had etumbled on the mechanism that conditions the use of the organism as a whole.23

This general and initially unexpected series of resulte likewise

followed in his own case:

Meantime he discovered that his continued good use of himself through knowing about the primary control was having an exhilarating effect on his entire being. He had not only acquired a perfect throat, but a fool-proof voice which could fill the biggest hall or market-place and yet make the faintest whispers audible. He had raised himself to a plane of health he had never thought himself capable of. He seemed to be able to resist disease, from the common cold all the way up and down the fever scale. He could eat practically everything without upsetting his digestion. He had grown several inches taller and was stripped of every ounce of superfluous fat. There was a sense of buoyancy and lightness in his every movement. And he could work the clock around without being exhausted. He had even conquered the hot temper which had plagued him since his over-protected childhood.24

Justifiably impressed with the turn of events consequent

upon his discovery,

On the advice of doctors who had become interested in his work from the point of view of therapy, he now gave up his speaking career in order to teach the new technique on a general basis.25



He had evolved this technique between 1892 and 1894, and taught it in Melbourne from 1894 to 1899. With him at this time was his brother, Albert Redden Alexander, six years younger than he, who became his assistant and lifelong associate, and later also taught John Dewey over a period of years.²⁶

In 1899 Alexander removed to Sydney, leaving his younger brother, Albert Redden, to carry on his work in Melbourne.²⁷ By this time the elder Alexander had decided to abandon his ambitions for a stage career, and devoted himself to teaching his newly discovered physiological technique, and to developing it in a general way. He became increasingly aware of the total character of the effect of his method on his pupils, but seems not at this point to have developed his conclusions in a philosophical way, with regard to such matters as the nature of the mind-body relationship and the ethical and social consequences of his initial principles.²⁸ His work was still largely with theatrical people, though he began to attract the notice of men in the medical profession, and even challenged them to come to him and be convinced of his discovery. Some did, and in 1904 a distinguished surgeon, Dr. W. K. Stewart McKay, advised him to go to London, providing him with letters of introduction to several physicians there.²⁹

Shortly after his arrival in London, Dr. Robert Scanes Spicer, a throat specialist, sent Alexander one of his patients, an actress from Sir Henry Irving's Queen's Theatre. The results so impressed Sir Henry that he himself became a "pupil", and Alexander -

was "literally enlisted as the special protector of the London theatre."³⁰ During this and the following theatrical season his rather remarkable benefits to famous performers afforded Alexander and his work considerable publicity. His aims, however, went beyond the theatrical level.

As in Sydney, Alexander now challenged the English medical profession and assailed their practices in a cavalier manner:

Medicine, Alexander had the audacity to assert, had built its elaborate structure upon an unsound, incomplete foundation. The doctors had failed to notice the influence the way a man uses himself exercises upon his functioning and, therefore, his health. The medical diagnosis, he charged, was incomplete. He even went further to declare that there can be no genuine cure until the underlying, predisposing factor--the standard of use of the self-is improved. If we continue to use ourselves badly, he warns us, that style of use will remain a constantly detrimental influence in our lives.³¹

It is difficult to see how physicians and men of science, addressed in this tone by one without recognized scientific training or status, could be expected to respond at once with a friendly and receptive attitude. Alexander's profound conviction that "he had found a universal principle, a lost biological secret,"³² which he wished to become known and applied universally, was never accompanied by great tact. As for his lack of formal training,

Early in his career ... a medical friend urged him to study anatomy as an aid to his work and sent him to two recognized anatomists. He found these academic worthies in such deplorable psycho-physical condition that he found no difficulty in deciding not to study anatomy, which, he concluded, must be a dead science indeed if these two exponents were any criteria in their persons.³³

He himself elsewhere records that he considered such sciences as anatomy and physiology as preoccupied with partial aspects of behavior to the



exclusion of the basic fact in terms of which all else must be explained: the unity of the human being and the "primary control" of all its operations.³⁴ In any case, Alexander's attitude toward men of science and science itself was to serve him ill at times, and sheds light on his relations with Dewey.

From 1904 until 1914 Alexander taught his technique of re-education or "conscious control" in London, constantly attempting to carry his convictions before the medical profession and people of influence, in order to secure recognition and establishment for his work. Characteristically displaying greater zeal than prudence, he wrote a number of letters to the press and also published pamphlets. challenging medical opinion its own ground, and taking sides in professional controversy. In 1907, for example, he published The Theory and Practice of a New Nethod of Respiratory Re-Iducation, an attack on methods of "deep breathing" then in vogue.35 A recent note on this pamphlet says that it "contains the kernel of Alexander's new thought and shows that he is one of the founders of the new attitude towards health". This was followed in 1908 by a letter to the Fall Mall Gazette, criticizing a manual of physical training and breathing exercises used by the British Army. Of this Alexander declared that "anyone reasonably versed in physiology and psychology ... will at once understand why so much harm results from [these exercises.]" This harm includes "heart troubles, varicose veins, emphysema and mouth breathing (in exercise) ... so much in evidence in the Army."37 Alexander offered

his own time and services to rectify this state of affairs, though it was not until 1940 that he felt that his ideas had any effect on the military training program.³⁸

In 1908 there also appeared, 'Re-Education of the Kinaesthetic Systems (Sensory Appreciation of Muscular Movement) Concerned with the Development of Robust Physical Well-Being. 39 Although the word "psycho-physical" appears, in one case as adjectival to a "factor" "in the process of creating a co-ordination," and although there is mention of "the Directive Agent of the sphere of consciousness" which "discriminates the action of the kinaesthetic and motion agents." Alexander does not yet appear to have given explicit attention to the philosophical implications of the material with which he is dealing. He is acquiring physiological terminology, however, and it is clear that he has been reading T. H. Huxley, whose notions on education as the formation of habits he revises in terms of his own new technique.40 Though not remarkable for its clarity, this brief article is an excellent statement of the main features of Alexander's system. This is true not only for the elements of the doctrine, (psycho-physical coordination. the primacy of inhibition in the formation of new habits, "debauched" kinaesthesia in most people today, the necessity of creative intelligence in reshaping ordinary acts, the initial need for external guidance in acquiring correct habits, the futility of striving for an end except by intelligent means, etc.,) but also true for the peculiar terminology. which later will enable us on occasion to detect the presence of



Alexander's influence in Dewey's writings, ("means-whereby", conscious control", "mechanical advantage", end-gaining", "orders", "inhibition of habitual funconsciously formed acts," etc.).

In October, 1909, Alexander wrote a letter to the <u>Pall Mall Gazette</u>, approving a paper by his first London medical patron and "pupil", the throat specialist Dr. Scanes Spicer, which was read before the British Medical Association.⁴¹ Dr. Spicer had advanced a theory connecting cancer of the throat with incorrect breathing, and had been met by adverse criticism from members of the Association. Alexander gives technical reasons for agreeing with Dr. Spicer, noting that he had "pointed out in publications of my own in 1907 and 1908" that incorrect breathing and other physical exercises as practiced in British schools produced conditions which were "undoubtedly the greatest factor in the causation of throat troubles." He appeals to another medical authority, Dr. Henry Campbell, and then adds:

I recently convinced Dr. Alexander Leeper (Melbourne University) of the truth of the above pronouncement, and in a report to the Teachers and Schools Registration Board on the various methods of physical culture in vogue in Europe, he strongly recommends the adoption of that exemplifying my principles. This report is particularly interesting, as it contains a most favourable opinion from Dr. Scanes Spicer of the principles in question--an opinion which he is specially competent to express, since on examining the points which I brought to his notice in 1904 he at once became a pupil, and has sent several of his patients to me for treatment. The fact that he is convinced of the nature of the cause of certain serious effects, and that I offer to prove that the aforesaid cause is itself a result, in the great majority of cases, of the training given in our schools, should induce those responsible for such training to examine the points at issue.⁴²

Two days later, in the same paper, a letter from Sir Henry Irving appeared, urging the acceptance of Alexander's offer:

As one who has derived great benefit from Mr. Alexander's work, and, as supporting the testimony of Dr. Scanes Spicer, whose scientific explanation of some of the principles of Mr. Alexander's method has just appeared, I would suggest that such an offer is one that calls for most serious consideration at the hands of those public authorities who are entrusted with the care and education of our children.⁴³

No action seems to have been taken upon this offer or these recommendations, however, and Alexander again bid for public recognition with yet another pamphlet, 'Why We Breathe Incorrectly,' published a month later.

Man's Supreme Inheritance, Alexander's first full-length book, was published in 1910.⁴⁵ It was intended as a brief statement of his theory and practice, confined to his "primary argument ... and ... indicating the direction in which we may find physical completeness," and to be followed by later larger works.⁴⁶ By this time Alexander's field has widened considerably, and begins to include philosophical issues. Evolutionary views, current in the writings of Herbert Spencer and T. H. Huxley as well as those of Charles Darwin, are taken for granted and applied to his own theories.⁴⁷ There is also a position taken up on the mind-body relation,⁴⁸ on psychology and some psychologists,⁴⁹ and on various political and social questions. Interest in education, especially that of children, remains second only to that of justifying and spreading the new technique.

In 1918 the second or American edition of <u>Man's Supreme</u> <u>Inheritance</u> was published in the United States, revised and much expanded, and with an 'Introductory Word' by John Dewey.⁵⁰ From 1918 to 1920

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Alexander spent six months of the year in England and six months teaching in New York and Boston, returning to England from 1920 to 1923.⁵¹

On January 3, 1923 he returned to New York simultaneously with the arrival of Emile Coué, the latter widely heralded, the former unnoticed. Because of surface resemblances in Coué's work to that of Alexander, and because of foreseeable confusion between the two, the disparity of this reception irritated Dewey. The situation was aggravated by the fact that the occasion of Alexander's visit was the forthcoming publication of his second book, <u>Constructive Conscious Control</u> of the Individual (1923), to which Dewey was preparing an introduction. Dewey expressed his position vigorously in an article, 'A Sick World,' to which we shall return.

In 1924 Alexander was back in England, where he started a small class in which children being taught the technique were also taught how to apply it to ordinary school subjects and daily activities. This school was endowed with a trust fund in 1932 through Lord Lytton,⁵² and in 1934 was moved to Bexhill, Kent, as a separate unit, where it remained until 1940. In that year, because of war conditions, the Trust Fund School was moved to Stow, Massachusetts, under the auspices of the Unitarian Association of America, where it remained until 1943, returning then to England. F. M. Alexander had come to the United States in 1939 in connection with the transfer of this School, and remained with it until its return. He went back to

London in May, 1943, and did not return to this continent again.53

Meanwhile, in 1930, a training course for teachers of the Alexander technique was started in London, by which time Alexander was able to cite the approval of his work by an impressive list of varied authorities, John Dewey, the Earl of Lytton, and many prominent medical men among them.⁵⁴

Between 1924 and 1939 F. M. Alexander does not seem to have often visited the United States.⁵⁵ However, his brother, A. R. Alexander, taught the technique in Boston, New York, and Media, Penneylvania, from 1935 to 1945. It was this brother who was responsible for the technique being introduced into the Media Friends' School during the last sojourn of the elder Alexander in the United States, $(1940-43.)^{56}$

The Use of the Self, F. M. Alexander's third and perhaps most significant book, was published in 1932, both in England and the United States, and again with an introduction by John Dewey.⁵⁷ At this time, and presumably in this connection, A.R. Alexander seems to have paid a brief visit to the United States.

Alexander's last book, <u>The Universal Constant</u>, was published in 1941, prefixed by an 'Appreciation' by the biologist George E. Coghill, not only endorsing Alexander's work, but linking it with his own well-known researches and declaring the identity of the principles which his own laboratory work had established with the

principles of the Alexander Technique.⁵⁸

In 1944 Dr. E. Jokl, the physical education officer of the South African government, published a strong attack on Alexander's method of re-education,⁵⁹ which resulted in a libel action being brought against Dr. Jokl by Alexander in 1948.⁶⁰ The expert testimony brought forward during this trial decided nothing conclusively in regard to the scientific status of Alexander's discovery or his technique, but Alexander won his case.

F. M. Alexander continued teaching in London, and died on October 10, 1955. His brother, Albert Redden Alexander, taught in the United States until 1945, in which year he died, shortly after returning to England.⁶¹

2. Doctrine. General Features and The Discovery.

A comprehensive and authoritative account of Alexander's "new technique" is beyond both the needs of this thesis and the competence of its writer. Yet it is manifestly impossible to discuss the effects of Alexander's theory and practice upon Dewey without first setting forth the general features of Alexander's system. This section accordingly proposes first to make some observations on the views held by Alexander, and then to follow his own description of his discovery of the "primary control of use," adding what seems necessary in the interest of clarity. At a later

point⁶² we shall consider Alexander's teachings from a slightly different point of view, namely, as they appear in <u>Man's Supreme</u> <u>Inheritance</u> (1918), where Dewey first encountered them--or, more accurately, as he saw them when he first commented upon them.⁶³ In both this and the subsequent account Alexander's theory and practice have been presented less on their own account than as subservient to our purpose of showing their relation to Dewey. It is hoped that no injustice has been done to Alexander by this procedure.

For convenience we may distribute into three areas the assortment of dectrines which Alexander has set down in his writings. The figure of three concentric circles is a convenient one, and enjoys distinguished precedent in Dr. Joseph Ratner's analysis of Dewey's philosophy.⁶⁴ For many reasons, however, no parallel with Dr. Ratner's well-known scheme is here intended.

In the central area of circle, at its very core, we place the discovery of what Alexander termed the "primary control of use," which at its point of origin, both historically and analytically, pertains to physiological psychology, if not to pure physiology. In the next circle there are numerous propositions, not systematically interrelated, which Alexander sees as derived from or supported by his original discovery. To the cuter circle we may assign the considerable number of propositions which seem to an outsider to be extravagances imported from random sources without criticism, or to be the product of personal whim and prejudice. Though they are

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usually delivered in the same apodictic manner as are the accounts of the "primary control" itself, often giving the impression that Alexander assumes them to be supported by the latter, we need not suppose that Dewey considered them as scientifically warranted. The outer circle and perhaps the adjacent half of the middle one contain what Alexander's followers insist upon terming his "philosophy." 65 What is meant by this word is not always clear, except that it seems usually to refer to a generalization of Alexander's theories, in distinction from the practical application of the technique to the individual. Of these three areas we first consider the central one, since it represents the conceptions which are not only the most fundamental, but those of which we can be most sure of as accepted by Dewey as scientifically warranted. The account, once more, is a summary and selective one; whatever details may be required from any of these three areas will be presented as they are needed elsewhere in this thesis.

When medical attention failed to remedy Alexander's throat difficulty, he set about solving it for himself. His procedure was experimental, and, both in its method and its results, was later declared by Dewey to be "scientific in the strictest sense of the word."⁶⁶ Reserving further inquiry into this remark and its context, we may assume here that Dewey does not intend to credit Alexander with the complex technical equipment proper to those whom we usually call scientists, for this was plainly not the case.

The alternative interpretation is that Dewey is using the term "scientific" in a wider sense, as he so frequently does, to denote conformity with the general principles of the experimental method.⁶⁷ For this, which Dewey equates at times not only with "science," "reason," and "intellectual inquiry,"

concrete suggestions arising from past experiences, developed and matured in the light of the needs and deficiencies of the present, employed as aims and methods of specific reconstruction, and tested by success or failure in accomplishing this task of readjustment, suffice. To such empirical suggestions used in constructive fashion for new ends the name intelligence is given.⁶⁸

In The Use of the Self (1932), Alexander has recorded in minute detail the method and the series of results of the investigation which he conducted upon himself for a period of some nine years, in his attempt to discover the cause and the remedy of his difficulty. Using mirrors, he observed his physical actions as he spoke. He framed hypotheses, tested them, drew conclusions, made further observations, framed new hypotheses, developed them in relation to what he had already verified, and so on in orthodox experimental fashion until he was convinced that he had not only solved the original problem, but had--to quote Dewey's assessment of it--"demonstrated a new scientific principle with respect to the control of human behaviour, as important as any principle which has ever been discovered in the domain of external nature."⁶⁹ This new principle of the "primary control" then, which represents the outcome of his experimental investigations, may be taken to be the centre or

cere of Alexander's ontire system. Since, moreover, there can be no doubt about Dewey's acceptance of this principle and its scientific validity, we are at a twofold advantage in considering it first.

What Alexander calls the "primary control" is difficult to grasp in a definition, even of a descriptive or genetic sort, because it is a relation of psycho-physical functions; a "means whereby" and not a physiological structure. Alexander steadily resisted its resolution into "orthodox" physiological terms as being partial and misleading.⁷⁰ For him, the only way to understand it was to "know" it and employ it in one's own experience. Nevertheless he is willing to describe it in terms of <u>how</u> he came to discover it and how it operates. One of his most succinct statements is a later summation of the longer account in <u>The Use of the Self</u>:

When I was experimenting with various ways of using myself in the attempt to improve the functioning of my vocal organs, I discovered that a certain use of the head in relation to the neck, and of the head and neck in relation to the torso and the other parts of the organism, if consciously and continuously employed, ensures, as was shown in my case, the establishment of a manner of use of the self as a whole which provides the best conditions for raising the standard of the functioning of the various mechanisms, organs, and systems. I found that in practice this use of the parts. beginning with the use of the head in relation to the neck, constituted a primary control of the mechanisms as a whole, involving control in process right through the organism, and that when I interfered with the employment of the primary control of my manner of use, this was always associated with a lowering of the standard of my general functioning. This brought me to realize that I had found a way by which we can judge whether the influence of our manner of use is affecting our general functioning adversely or otherwise, the criterion being whether or not this manner of use is interfering with the correct employment of the primary control.71
Such words as "correct" in contexts like this, he assures us in a note, we are to understand as indicating "conditions of psychophysical functioning which are best for the working of the organism as a whole."⁷²

The road to this "new principle" passed through a number of preliminary discoveries concerning the nature of psychophysical action, all of which were unexpected by Alexander. As briefly as possible, we must trace these steps serially, since otherwise Alexander's key notions and their influence on Dewey are unintelligible.

Using mirrors to observe his actions as he recited, Alexander eventually detected a threefold motor pattern of which he had previously been unconscious. As he began to speak, he (1) pulled his head backward and downward, (2) he depressed his larynx, and (3) he sucked in breath through his mouth. These tendencies, he also found, were present in a much lesser degree in his ordinary speaking, though they increased in proportion to the demands he made on his mechanism. Having previously decided that something was wrong in his <u>use</u> of his voice, he conjectured that this pattern constituted his misuse, and accordingly set about remedying it.⁷³ He found that he could not by conscious effort prevent (2) and (3), but that he could to some extent prevent (1). Next observing that when he did prevent (1), the other two elements did not appear, he concluded that pulling his head back and down was the fundamental

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error.

Alexander arrived at what he calls the second stage of his investigations when he discovered that as time passed and he gained experience in this "prevention of misuse," medical examination showed that the general condition of his larynx and vocal cords had improved. From this he concluded that his improved "use" had resulted in improved (physiological) <u>functioning</u> of his vocal and respiratory mechanisms. "My experience up till now," he writes, "had shown me:

 (1) that the tendency to put my head back was associated with my throat trouble, and
(2) that I could relieve this trouble to a certain extent merely by preventing myself from putting my head back, since this act of prevention tended to prevent indirectly the depressing of the larynx and the sucking in of breath.⁷⁴

The notion of prevention or inhibition is thus already present, though its importance is not yet seen.

Presently there also appeared evidence suggesting

that the functioning of the organs of speech were influenced by my manner of using the whole torso, and that the pulling of the head back and down was not, as I had presumed, merely a misuse of the specific parts concerned, but one that was inseparably bound up with a misuse of other mechanisms which involved the act of shortening the stature.⁷⁵

This being the case, Alexander concluded that merely preventing the "wrong use" of his head and neck was not enough; "those other associated wrong uses which brought about the shortening of the stature" must also be prevented. At this point, he feels, he was beginning to see that the "use" of the organism as a whole was involved.⁷⁶

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Satisfied of this much, Alexander decided to try combining this program of preventing the pulling down of his head, lifting his chest and shortening his spine with a program of "doing," that is, with an attempt to put his head "forward and up" and to "widen the back," and to maintain these conditions while speaking or reciting.⁷⁷ This attempt failed, whereupon he marshalled more mirrors to see what was actually taking place. Attthis point a new fact emerged:

There I saw that at the critical moment when I tried to combine the prevention of shortening with a positive attempt to <u>maintain</u> <u>a lengthening and speak at the same time</u>, I did not out my head forward and up as I intended, but actually put it back. Here, then, was startling proof that I was doing the opposite of what I believed I was doing and of what I had decided I ought to do.⁷⁸

That is to say, at the moment when he tried to speak, the former habit prevailed not only over what he attempted to do about correcting his misuses, but, as the added mirors disclosed, also over what he thought he actually was doing.

Further experiment and observation confirmed the conjecture that the misuses of other mechanisms incident to the act of reciting, such as standing, walking. gesticulating, and the like, all "synchronized with my wrong use of my head" and that this malcoordination "involved a condition of undue muscle tension throughout my organism." From this he concluded that this wrong use amounted to "a combined wrong use of the whole of my physical-mental mechanism." That was worse,

I then realized that this was the use which I habitually brought into play for all my activities, that it was what I may call the "habitual use" of myself, and that my desire to recite, like any other stimulue to activity, would inevitably cause this habitual wrong use to come into play and dominate any atcempt

I might be making to employ a better use of myself in reciting. ... This stimulus to general wrong use was far stronger than the stimulus of my desire to employ the new use of my head and neck, and I now saw that it was this influence which led me, as soon as I stood up to recite, to put my head in the opposite direction to that which I desired.⁷⁹

This disclosure introduced a shift into the problem. The habitual "wrong uses" (motor patterns) which had always "felt right" and natural in their execution had become so automatic and strong that at the critical moment of performance they defeated the conscious attempt to substitute a new, reasoned motor pattern by direct substitution. The tendency of the psycho-physical organism to respond as a whole was so strong that when it dominated action it also dominated the kinaesthetic sensory report of what was taking place: Alexander "felt" that he was putting his head forward and up as he made the decision to recite, as he was trying to, but the added mirrors showed him that he was actually pulling it backward and down in the old habitual pattern. In this connection Alexander introduces a familiar theme to which Dewey, citing him by name, alludes in <u>Human Nature and Conduct:⁶⁰</u>

The belief is very generally held that if only we are told what to do in order to correct a wrong way of doing something, we can do it, and if we <u>feel</u> we are doing it, all is well. All my experience, however, goes to show that this belief is a delusion.

To Alexander the problem now seemed to hinge on what he terms the "direction of use," by which he says he wishes

to indicate the process involved in projecting messages from the brain to the mechanisms and in conducting the energy



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necessary to the use of these mechanisms. 82

In less recondite language, he now sees the problem as that of the origination of ideo-motor action.⁸³ In the light of his new discovery, he set out afresh with the following propositions as data:

(1) That the pulling of my head back and down, when I <u>felt</u> that I was putting it forward and up, was proof that the use of the specific parts concerned was being misdirected, and that this misdirection was associated with untrustworthy feeling;

(2) That this misdirection was instinctive, and, together with the associated untrustworthy feeling, was part and parcel of my habitual use of myself;

(3) That this instinctive misdirection, leading to wrong habitual use of myself, including most noticeably the wrong use of my head and neck, <u>came into play as the result of a</u> <u>decision to use my voice; this misdirection, in other words</u>, <u>was my instinctive response (reaction) to the stimulus to use</u> <u>my voice</u>.⁸⁴

The problem now was to discover how to inhibit the unconscious, habitual ("instinctive," "inherited")⁸⁵ response touched off by the stimulus to speak, (i.e. the mental decision, "speak the sentence!"),⁸⁶ and to replace it by a "direction" that would "ensure a new and improved use of the head and neck, and, indirectly, of the larynx and breathing and other mechanisms." Plainly this could be done only by <u>reasoning</u> in the light of his experimental findings, since habitual guidance or "feeling" had proved fallacious. At least in the case of the proper direction of use in the act of speaking, it was an issue between <u>reasoned</u> direction as <u>against</u> habitual or instinctive direction of use.

It is unnecessary to follow in all details the remainder

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of Alexander's experiments. In sum, they convinced him that the crisis occurred at the precise "moment when the giving of directions merged into 'doing' for the gaining of the end I had decided upon," (in this case, speaking.)⁸⁷ In order to control direction at this moment, he found that he "had to make the experience of receiving do the stimulus to speak and of refusing to anything immediate in response,"⁸⁸ that is, the first step was not to gain the end, but to <u>inhibit</u> the old response. Next he had to discover what positive directions or "orders" he had to project mentally in order to <u>be able</u> to elicit the correct motor pattern, still <u>doing</u> nothing whatever. This is the significance of Alexander's refrain-like insistence on keeping one's attention of the "means whereby" and not on the end to be gained.⁸⁹

In thus transferring the motor habit from the unconscious (habitual, instinctive) level to the conscious level, Alexander found that he had to practice projecting his new directions mentally for days, weeks, and sometimes months before he could trust himself to any overt motor response while still keeping the old pattern inhibited. He found, moreover that he had to $stop^{90}$ at the above-mentioned critical moment and make a fresh conscious choice of alternatives: either (1) not to allow the response to occur even by the new "means whereby"; or (2) change the end and do something else instead (lift a hand, say,) or (3) go on a speak. But in all three cases <u>it was</u> <u>necessary to continue right on projecting the correct ideational</u>

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pattern, for it was this latter act alone that made it possible to maintain the inhibition of the old response, and thus to bridge over the critical moment. Eventually a new habit of motor response was formed, but this time under conscious control, so that Alexander became

able to defeat any influence of that habitual wrong use in speaking to which my original decision to "speak the sentence" had been the stimulus, and that my conscious, reasoning direction was at last dominating the unreasoning, instinctive direction associated with my unsatisfactory habitual use of myself. (p. 24) ... The stimulus to use my voice no longer brought into play the old reflex activity which included the pulling of my head back and down, leading to a shortening of my stature, and which constituted my harmful habitual reaction to that stimulus, but, instead, a new reflex activity which included putting my head forward and up to lengthen the stature and which, by its results, proved to be a satisfactory reaction to that stimulus.

Having concluded that the head-neck-torso relation embodied the primary control of all physical and mental use, Alexander generalized his findings:

By this new procedure, as long as the reasoned directions for the bringing about of new conditions of use were consciously maintained, the stimulus of a decision to gain a certain end would result in an activity differing from the old habitual activity, in that the old activity could not be controlled outside the gaining of a given end, whereas the new activity could be controlled for the gaining of any end that was consciously desired.⁹²

To this statement he adds, in italics, that this procedure is not only contrary to any training which has been given to our individual instinctive direction, "but contrary also to that in which man's instinctive processes have been drilled continuously all through his evolutionary experience."⁹³

Returning now to our threefold classification, we find

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in the central area a number of propositions which Alexander felt he had validly established by his experimental procedure. The basic discovery, that of the primary control of use, has already been described. What now may be added is that the "projected mental directions" or "orders" which establish the correct habitual use of the psycho-physical mechanisms consist precisely in consciously establishing and maintaining the correct functional relation between the head and the neck, and between these two and the rest of the spine. Two things must be noted: (1) The relation is not a static pose, but a dynamic relation; a posture, which prepares for action. The relation is maintained in any possible position of the body-standing, lying down, walking, or rolled up in a ball.94 (2) It is neither sought nor maintained as an end in itself. but as a "means whereby" to action. Even the immediate psycho-physical effects of achieving this "position of mechanical advantage" can be a hindrance to progress. To take an example which Dewey mentions from his own experience⁹⁵, the general feeling of "lightness" and integrated physical coordination which immediately results can insinuate itself as an "end", so that further progress toward control is retarded or blocked. One thinks and acts habitually in the activity. not of it. once it is acquired. One might call it the habit which underlies all other habits, integrating them, and relating them to conscious action.97

As incidental to the discovery of the primary control,

Alexander felt that he had by his experiments verified other propositions directly connected with it, either as (often unexpected) results of his procedure or as inferences from his findings. Since Dewey has not only repeatedly declared Alexander's experimental procedure to be scientific, but has also said that

One who has had experience of the technique <u>knows</u> it through the series of experiences which he himself has. The genuinely scientific character of Mr. Alexander's teaching and discoveries can be safely rested upon this fact alone,⁷⁰

we shall begin with some of the results which Dewey considers

established:

I verified in personal experience all that Mr. Alexander says about the unity of the physical and psychical in the psychophysical; about our habitually wrong use of ourselves and the part this wrong use plays in generating all kinds of unnecessary tensions and wastes of energy; about the vitiation of our sensory appreciations which form the material of our judgments of ourselves; about the unconditional necessity of inhibition of customary acts, and the tremendous mental difficulty found in not "doing" something as soon as an habitual act is suggested, together with the great change in moral and mental attitude that takes place as proper coordinations are established.⁹⁹

To reassure us that he is not referring to a judgment based on

"feeling," he continues:

In re-affirming my conviction as to the scientific character of Mr. Alexander's discoveries and technique, I do so then not as one who has experienced a "cure," but as one who has brought whatever intellectual capacity he has to the study of a problem. In the study I found things which I had "known"-in the sense of theoretical belief--in philosophy and psychology, changed into vital experiences which gave a new meaning to knowledge of them.¹⁰⁰

It will be noted that three of the assertions on Dewey's evidently random list are located in what the writer has

arbitrarily designated as the second area of his classification, since they are, as framed above, not directly evolved in the experimental procedure by which Alexander solved his original problem through the discovery of the "primary control." These derivative propositions are the one concerning the unity of the physical and psychical in the psycho-physical; that about the great change in moral and mental attitude that takes place as proper coordinations are established, and the reference to the vital experiences which gave new meaning to theoretical knowledge. Dewey, however, unequivocally declares these propositions to be scientifically verified by himself as well as by Alexander. The bare statement that habitually wrong use of ourselves generates all kinds of unnecessary tensions and wastes of energy also belongs in the direct line of experimental findings, though both Alexander and Dewey developed this proposition beyond the purely experimental level.¹⁰¹

Other experimental findings which emerged in the course of Alexander's research were that certain habitual muscular and motor response patterns acquired and operating "below the plane of consciousness" are not correctly reported by the kinaesthetic or "muscle" sense alone; that these patterns--at least in some cases-cannot be altered by direct volition, that is, by simply substituting a new and desirable response pattern by a conscious act of choice; that "to 'try and get it right' by direct 'doing' is to try and reproduce what is known, and cannot lead to the 'right,' the as

yet 'unknown;'¹⁰² that this 'unknown' (correct) kinaesthetic experience cannot be communicated verbally to those without it, since words denote known experiences; that it is impossible to separate the "physical" and "mental" in our conception of the working of the human organism;¹⁰³ that in the absence of integral conscious control there is a conflict ("civil war")¹⁰⁴ between "subconscious" or "instinctive" ideo-motor patterns and those initiated by conscious effort; and that this "civil war" manifests itself in unnatural and damaging muscular tensions throughout the entire organism.¹⁰⁵

In the second area of our classification, the category of assertions which, though not directly verified in experiment, Alexander sees as valid inferences from his principles, there is a vast range of assorted propositions. Some of these are generalizations of his findings, such as the statement that "the habit of <u>endgaining</u> is probably the most persistent and impeding habit [man] needs to overcome in seeking to make changes in himself or others; "106 that rapidly changing conditions of civilized life and the ever increasing speed with which man has been called upon to adapt to them have outstripped his native adaptability and have even perverted it; that the "eensory appreciation" of modern civilized man is in most if not all cases "debauched"¹⁰⁷, so that "in any attempt to make necessary changes in himself man would need to do what he <u>feels</u> wrong in order to be right, "¹⁰⁸ and that it is necessary for man

under modern civilized conditions to bring all the functions of his psycho-physical mechanism under conscious control (at least indirectly), since he is no longer able to trust in "instinctive guidance" because of its perverted state.¹⁰⁹Further, all present physical culture methods, deep-breathing, and exercises commonly called physical training, are wrong and injurious, since they are partial remedies, and at best merely substitute another form of imbalance for those remedied by such exercises.¹¹⁰ By the same token, the scientific method as now conceived--notably in physiology--is a narrow, end-gaining affair, sterile because of its foreshortened view, and merely a surreptitious "mental rigidity."¹¹¹

Other conclusions appear to be the result of Alexander's "intuition" in the good sense,¹¹² or, what amounts to the same thing, are combinations of his own ideas with others taken from sources which he does not question. The hypothesis of organic evolution is taken over along with the notion of the transmission of acquired traits,¹¹³ so that Alexander can conclude that civilized conditions have caused the instincts of man to atrophy structurally, and that children are now born with fewer instincts than was the case 300 years, 200 years, or even a generation ago.¹¹⁴ Here also belongs Alexander's insistence that the proposition that mind and body are not separate <u>entities</u> is a conclusion from his investigations.¹¹⁵ Again, Scanes-Spicer's thesis that improper posture and misuse of the breathing mechanisms is a cause of cancer was accepted

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by Alexander, and later generalized into the proposition that <u>all</u> bodily diseases and disorders result from deflection of the primary control, and can be remedied by its reinstatement.¹¹⁶ Not only this, but the moral conflict which theologians ascribed to the original sin will also be resolved by the primary control, for the latter is the solution of the problem of "why man fails so often to put his good ideas into practice, especially when he tries hardest to do so."¹¹⁷ A still wider generalization is that the future of man's evolutionary progress is contingent on his regaining this primary control and developing his habits in an intelligent and integral way.

There are but three alternatives. The first, a return to the sole guidance of instinct, is unthinkable. The second, the continuance of this dual government, is the very condition which has led to the evils we seek to remedy. There remains the third--namely that man's physical evolution points to progress along the road of reasoned conscious guidance and control. 118

Hence this must be made the basis of all future education. 119

The above illustrations are presented with no attempt at critical appraisal; such criticism is not part of our present task. It may be noted in passing, however, that Dewey accepted some of these doctrines as valid, while there were others with which he has shown himself in disagreement, as will be seen.

The final member of our classification contains the type of assertions which have no discernible connection with Alexander's theories and practice, despite his attempts to establish such a connection. Here, of course, the writer admits to a certain measure

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of criticism "from without." Examples of this type are the connecting of the "German mentality" which "caused World War I" with the "mental rigidity" which is the opposite of conscious control,¹²⁰ a similar essay which includes Italy in relation to the causes of World War II,¹²¹ and the declaration that the black races are relatively "a most disappointing result" in "the progress of mental evolution."¹²² Examples could be multiplied, but with this type of assertion our thesis has no concern.

As Alexander continued his efforts to give expression in books, articles, and letters to the nature and development of his theory and practice--always insisting on the inadequacy of such expression--he employed an increasingly idiomatic set of terms. Since these serve as a kind of litmus in detecting the presence of Alexander's ideas elsewhere, especially in Dewey's writings, it is well to append a list of the more important of these terms to this section.

The basic notion of the "primary control (of use)" has been explained above. The term itself does not seem to appear in Alexander's writings prior to the attempts on the part of his scientific friends to connect his discovery with that of the <u>Zentralapparat</u> by Rudolph Magnus.¹²³ The first public claim for this connection seems to have been made in 1925 by Mr. Macleod Yearsley, a surgeon with whom Alexander was on terms of personal friendship, in an article considered elsewhere in this thesis.¹²⁴

Earlier the function was referred to, in varying degrees of equivalence, by the terms "position of mechanical advantage," and "reasoned direction". In <u>Constructive Conscious Control of the Individual</u> (1923) it is referred to as "conscious control," the "standard of coordinated use (of the psycho-physical mechanism)," control on the "conscious plane," and a few other variants. In <u>The Use of Self</u> (1932) the term "(correct or wrong) use of the self" predominates, and in <u>The Universal Constant in</u> <u>Living</u> (1941) it is referred to as a "[good or bad] constant influence on the manner of use."

Connected with this notion are such other frequently recurring expressions as "the effect of use on functioning," "inhibition" in its special sense, particularly as equated with "nondoing"¹²⁵ "end-gaining" and "means whereby", "(defective or correct) sensory appreciation", "sense register",¹²⁶ and "orders," (later, "directions of use"), which at first are purely mental conceptions, "projected to the ideo-motor centres," but not overtly responded to. These are four in number,¹²⁷ and are basic to all integral conscious control, since they "put the psycho-physical organism in the position of mechanical advantage." Taken together, (they are given "one after the other and all together,") they eventually form the habitual framework within which all consciously directed acts are performed. They thus <u>replace</u> previous isolated stimuli, such as "speak the sentence," which formerly touched off undesirable subconsciously controlled motor patterns.

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The term "orders" is a difficult one to grasp, perhaps because of implications that do not seem to fit into the operational picture of the mind-body relationship accepted by both Alexander and Dewey. For example, they seem to require an "ego" behind consciousness to make them work, an entity which Dewey at least did not recognize. In 1947 he wrote:

The word "orders" always bothered me; I don't believe it is a happy term. ... If you give a pretty full description of [what takes place] first and then say you propose to use certain names for different aspects or phases of the whole thing, it would work out satisfactorily. "Orders" would perhaps then be use of names for keeping close track on what is going on--words as names certainly being the greatest clinchers in an operation.¹²³

Although this notion of "sending messages," (an expression which Alexander uses in connection with "orders,")¹²⁹ raises serious problems about where they come from, we need not notice those problems here. It is the term "orders" itself which we must bear in mind. If words as names are the greatest clinchers in an operation, it is enough for our purpose to watch for the name "orders" and the others just now mentioned when they appear in Dewey's writings, and to see if some Alexandrian operation is being denoted.

CHAPTER III

EARLY RELATIONS BETWEEN DEWEY AND ALEXANDER.

1. Before Their Meeting in 1916.

On reading one of Dewey's books, Alexander is reported to have said that this is the man whom he wished to introduce his work to America, referring to the second or American edition of <u>Man's Supreme Inheritance</u>.¹³⁰ The date of this observation seems to be 1914. While the problem of the sources of Alexander's ideas beyond his original physiological discoveries lies outside the scope of this thesis, some general conjectures can be made as to the extent of his acquaintance with Dewey's work before this time, and especially before 1910.

Outside of academic circles, in 1910 Dewey was known in England as a progressive educationist and psychologist, just then turning to professional philosophy.¹³¹ The only writings of his generally available were <u>The School and Society</u> (1900, <u>The School</u> and the <u>Child</u> (1906 or 1907), and <u>Educational Essays</u> (1910), these two latter being collections of early essays and addresses dating from between 1896 and 1902.¹³² The <u>Psychology</u> (1886; 1891), although written as a textbook for teachers, seems to have had little currency in the educational field.¹³³ The collections of essays just mentioned were published as an experiment in bringing Dewey's

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educational views before the English public, and though a brief list of other works of Dewey is appended to one, neither volume mentions the <u>Psychology</u> at all.¹³⁴

In 1910 Dewey published <u>The Influence of Darwin on</u> <u>Philosophy</u>, and <u>How We Think</u>, the latter also a text for teachers.¹³⁵ Whatever the potential interest for Alexander these may contain, one cannot suppose that they or the <u>Educational Essays</u> were available to him before he wrote the first edition of <u>Man's Supreme Inheritance</u>, which was likewise published in 1910. This leaves only <u>The School</u> <u>and Society</u> and <u>The School and the Child</u> as possible sources for Alexander's being acquainted with Dewey's ideas at that time. These provide no evidence of any connection whatever between the two, so that, in the absence of data indicating the contrary, we must look to a later date for the beginning of even a literary acquaintance between the two men.

Despite the fact that in these years the immediate preoccupations of Alexander and Dewey were moving along lines that meed not necessarily have intersected, it was through matter pertaining to educational program that their meeting came about. In 1913 or 1914, Miss Ethel Webb, a capable woman interested in education who had already begun her life-long work as Alexander's chief assistant and secretary, went to Rome to study with Dr. Maria Montessori with a view to exploring the possibilities of combining Alexander's principles with the new educational methods. There

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Miss Webb met Miss Irene Tasker, a Cambridge graduate devoted professionally to education, and some American students who had followed Dewey's courses at Columbia. Among the latter was Miss Margaret Naumburg, who was shortly to found the Walden School in New York.¹³⁶

Miss Webb introduced Alexander's first book, <u>Man's</u> <u>Supreme Inheritance</u>, to Miss Tasker and Miss Naumberg. As a result of this meeting with Miss Webb, both Miss Tasker and Miss Naumburg returned to London in 1914 and took lessons with Alexander. At this time Miss Webb and Miss Tasker discussed Dewey's work at some length with Alexander, and he seems to have read at least some of the works mentioned above. Alexander came to the United States on the assurance from Miss Naumburg that she knew of a number of potential pupils for him.

Miss Naumburg returned to New York in 1914, where she founded The Children's School, later to become The Walden School.¹³⁷ In that year or early in 1915 Miss Naumburg got Alexander his first pupils in New York, and he began teaching his technique there and later in Boston as well. Miss Webb then joined Alexander in 1915, and Miss Tasker came to New York in 1916, accepting a teaching position at Miss Naumburg's school. In 1917 Miss Tasker also joined Alexander as his assistant teacher.

Through students and friends who were acquainted with



staff members of Columbia Univ rsity, Alexander was invited to a dinner party given by Professor Wendell Bush and his wife in 1916. On this occasion Professor Dewey, Professor James Marvey Robinson, and Professor Wesley C. Mitchell were present. This was Alexander's first meeting with Dewey. Shortly afterwards all of these men, and their wives as well, were taking lessons with Alexander in his technique of "conscious control."¹³⁸

On Dewey's side, there is no reason to suppose that he had heard of Alexander or his work before the time of their meeting in 1916. The first edition of Man's Supreme Inheritance, though published simultaneously in London and New York in 1910, received very little attention on this continent. Nothing in Dewey's writings at this period shows any traces of notions which are peculiar to the English re-educator's teachings. Dewey, in fact, had long since turned his attention from explicit educational theory and practice to quite different matters. In 1910 he was preoccupied with epistemological and "metaphysical" matters; the Six Realists had published their platform, and Perry had written his 'Ego-Centric Predicament.' Schintz had launched his attack on pragmatism, aimed at Dewey.139 The problem of value had just been introduced into America. 140 and was presently to become the theme of an annual meeting of the American Philosophical Association, 141 for which Dewey submitted his well-known questions. 1910 is also the year of Dewey's sharp criticism of Münsterberg's The Eternal Values, 143 a quotation from

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which decorates a chapter heading in Alexander's book that year, but which--significantly, perhaps--disappears from the 1918 edition introduced by Dewey. 144

There are, indeed, similar points in the general perspective of Dewey and Alexander, but the development of some of these indicates lack of connection rather than influence. Dewey's early treatment of the notion of inhibition may serve to illustrate this:

In 1896, Dewey remarked in passing:

... I am aware of the importance attaching to inhibition, but mere inhibition is valueless. The only restraint, the only holding in, that is of any worth is that which comes through holding all the powers concentrated in devotion to a positive end. The end cannot be attained excepting as the instinct and impulses are kept from discharging at random and from running off on side tracks. In keeping the powers at work upon their relevant ends, there is sufficient opportunity for genuine inhibition. To say that inhibition is higher than power of direction, is like saying that death is worth more than life, negation worth more than affirmation, sacrifice worth more than service. Morally educative inhibition is one of the factors of the power of direction.¹⁴⁵

The final sentence of the above appears unchanged in two reprintings, in 1899 and in 1907. In 1910 this essay was included in the <u>Educational Essays</u>, published in England and edited by J.J. Findlay, professor of education at the University of Manchester.¹⁴⁶ The latter, making what he considers a "minor alteration in phraseology," ¹⁴⁷ rewrites the sentence as follows:

Inhibition is only educative when subordinated to the power of direction. $148\,$



It is this form which Alexander would have seen if he had read the essay.

However, Dewey rewrote this paper in 1969. Originally called 'Ethical Principles Underlying Education,' it was expanded into Moral Principles in Education. Here the above passage reads:

... The only restraint, the only holding in, that is of any worth is that which comes through holding powers concentrated upon a positive end. An end cannot be attained excepting as instincts and impulses are kept from discharging at random and from running off on side tracks. In keeping powers at work upon their relevant ends, there is sufficient opportunity for genuine inhibition. To say that inhibition is higher than power, is like saying that death is more than life, negation more than affirmation, sacrifice more than service.

The final sentence is now entirely omitted.

These changes, particularly the omission of the "clincher" sentence. move rather away from than toward Alexander's notion of the function of inhibition. Yet this notion occupies a key position in the latter's technique and theory, and Dewey was later to acknowledge its importance and to make use of it.¹⁵¹

In <u>How We Think</u> (1910), in which the role of inhibition is scarcely visible, there occurs a passage suggestive of views to be found in Alexander's earliest writings:

Ordinary experience is controlled largely by the direct strength and intensity of various occurrences. ... Customary experience tends to the control of thinking by considerations of <u>direct and immediate strength</u> rather than by those of importance in the long run.¹⁵² ... The prime necessity for scientific thought is that the thinker be freed from the tyranny of sense stimuli and habit, and this emancipation is also the necessary condition of progress.¹⁵³



However, this is not said to be accomplished by inhibition, but:

A certain power of <u>abstraction</u>, of deliberate turning away from the habitual responses to a situation, was required before men could be emancipated to follow up suggestions that in the end are fruitful.¹⁵⁴

Here Dewey seems to be making abstraction perform the office which Alexander demands of inhibition, but the operations signified in each case are slightly different. as will be seen.

When Dewey rewrote <u>How We Think</u> in 1933, he still made no mention of Alexander or of inhibition at this point. But this time he enlarges considerably on the notion and value of abstraction, making it clear that he is concerned with a special phase of scientific thinking:

... Scientific abstraction lays hold upon relations that could not in any case be perceived by sense. 155

Thus, although Dewey is now aware of "the unconditional necessity of inhibition in all our customary acts, "¹⁵⁶ this clarification makes it unnecessary to introduce the Alexandrian notion of inhibition. As in the first edition, Dewey is here commenting on a passage from Bain's <u>The Senses and the Intellect</u> (1879) which deals with the grasping of abstract relations, but now he is careful to assure us that he is discussing the <u>logical</u> value of abstraction.¹⁵⁷ To introduce the more general notion of inhibition would amount to a digression, and would disturb the original plan of this work laid down in 1910. But what effect Alexander's concept of the all-pervading nature of inhibition would have had on that original plan of this section, had Dewey then

been aware of it, is of course another--at least open--question.

That Alexander had heard of Dewey before 1913 or 1914 is unlikely; that he was influenced by him is even less so. There is nothing in the first edition of <u>Man's Supreme Inheritance</u>, or in Alexander's published letters and pamphlets at this time, suggestive of ideas peculiar to Dewey, nor is his name anywhere mentioned. Alexander's vigorous and public insistence on his interest in education began early.¹⁵⁸ This interest, however, at this time as well as throughout his lifetime, was primarily directed toward having his technique recognized and accepted for what it was, and toward having it applied universally to educational practice in the schools and even in the British Army.¹⁵⁹ Dewey's star had not yet risen very high in England, or at least was not visible from where Alexander stood.

It is difficult to suppose, moreover, that Alexander, of his own accord and without ulterior motive, would have become interested in what even later on he considered the vagaries of American progressive education.¹⁶⁰ Both interest and motive, however, appear to have been furnished by Miss Ethel Webb and the other students of education on their return from Rome. His interest, as far as available material is concerned, would have been aroused by the Dewey of the turn of the century; the Dewey who had not yet written the 'Logical Conditions of a Scientific Treatment of Morality,'(1903) or the Studies in Logical Theory, (1903)

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so far as Alexander knew.¹⁶¹ Congenial features there were in this doctrine, needing only the corrective of the primary control and its technique to bring it into Alexandrian perspective. But he would also have learned that in 1913 or 1914 Dewey was already the dominant and most practically influential figure in education on the American continent. If the technique was to take root and grow there, Dewey was clearly the man to introduce it.

Whatever his motive for coming to this continent, it seems clear that Alexander was not influenced by Dewey's writings much before his first visit to the United States. It has even been suggested that Dewey had almost no effect on Alexander's thinking even later on.¹⁶² On the other side, we have no evidence that Dewey was influenced by Alexander before their meeting in New York in 1916.

2. Dewey's Position, 1915-1919.

Dewey encountered Alexander and his ideas at a point in his career which was critical both personally and for his philosophy. Both of these aspects must be taken into his account, since both types of problems required decisions that determined future consequences. To exclude one entirely from consideration would be to discuss Dewey in terms other than his own, since experience is an integral whole, and even philosophy develops within it. For him there is nowhere else--no absolute, transcendent experience-outside-experience-where it might meaningfully develop. Fortunately, we have an account of Dewey's "situation" at this time from a student and intimate friend, Mr. Max Eastman, who has carefully recorded some of Dewey's own statements which have special significance for us.¹⁶³ In reporting his own conversation with Sigmund Freud, Mr. Eastman notes that, after Freud had mentioned Dewey, Eastman replied that he "had taught and studied under Dewey at Columbia, and thought very highly of him, too, though the World War had divided us. 'The war was a watershed in America.'¹¹⁶⁴ He added that Dewey "went over on the war side, and wrote a book against Germany, and it seemed for a time to change his whole thinking."¹⁶⁵

In his portrait of Dewey there is a passage which, despite its length, must be quoted here in its entirety because of its importance, its authority, and because it cannot be profitably summarized. After quoting a letter from Dewey in which the latter disclaimed any considerable knowledge of Marx's teachings, signing himself, "sincerely but delinquently, John Dewey," Mr. Eastman continues:

This delinquency made all the more harsh the parting between Dewey and his more intransigent pupils on the subject of America's entrance into the First World War. It was mainly Marx who backed them in their opposition to the war, and Dewey supported the war without refuting Marx. Those issues seem pale today when history has refuted Marx, and when Dewey's central theme, "Democracy and Education," has become the issue in a new World War. But in those days there was bitter derision of John Dewey in the heart of some of his most devoted disciples--eminent among them the gifted cripple, Randolph Bourne. The crisis was momentous in Dewey's history as well as theirs. He was not only alienated from them, but somewhat from himself, I think, by his support of the war

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against Germany. It was not that he felt, or feels now, that he made a flatly wrong choice. But his philosophy had not contemplated such a choice. Facts, in forcing it upon him, proved more "brute" than he had anticipated. He wrote a book on <u>German Philosophy and Politics</u> which seemed-to us then, at least--a contribution to the war propaganda rather th n to the history of thought. And he got into a state of tension that in most people would have been an illness.

In this emergency he had recourse to a very unconventional physician named Matthias Alexander, who opened a new chapter in his life. Dr. Alexander is an Australian of original but uncultivated mind, attacked by the medical profession, but possessed in Dewey's opinion of a valid theory about posture and muscular control, and a technique of "re-education" by which human beings are supposed to recover that integration of the organism which is natural to animals. Dr. Alexander has been endorsed by others as brainy as Bernard Shaw and Aldous Huxley, and his system undoubtedly worked in Dewey's case. "I used to shuffle and sag," he says. "Now, I hold myself up." Every one of his friends will endorse that assertion. And when he adds that "a person gets old because he bends over." it is difficult to argue with him, for he is obviously an expert on not getting old. It is simply impossible to believe when you see him that he has been around since 1859! Dewey gives 90 per cent of the credit for this to Dr. Alexander, 10 per cent to a regular physician who taught him to keep things moving through the alimentary canal. 160

This account by one who for years was all but a member of the Dewey household can hardly be called in question--nor is there any need to do so. Yet it must be read in its proper perspective: that of a student, who at the time of Dewey's meeting with Alexander was "divided from" Dewey over the entrance of the United States into World War I. Dewey's position on the latter issue was stated in <u>German Fhilosophy and Folitics</u> (1915), which antedates his meeting with Alexander. Thus the temporary "parting between Dewey and his more intransigent pupils" which Max Eastman notes, naming himself and Randolph Bourne, indicates that at the time of the meeting with









Alexander and for some time later these men were not in close contact with Dewey, nor with Alexander. This serves partly to explain why Mr. Eastman and others, viewing the change in Dewey only from the outside, so to speak, saw only the physical effects which "opened a new chapter in his life." Reasons for the persistence of this limited view will be seen presently.

The effect on Dewey's associates and colleagues of his acceptance of Alexander was quite different. Between 1916 and 1918 not only was the entire Dewey family taking lessons, but Professors James Harvey Robinson, Wesley C. Mitchell, Wendell Bush, Richard Morse Hodge, and Horace Kallen had become interested in varying degrees. Professor Robinson was among the most enthusiastic and articulate. In 1919 he published an article in the Atlantic Monthly. *The Philosopher's Stone, ' which is one of the best and most intelligible accounts of Alexander's work available. Reviewing Man's Supreme Inheritance, he says that "it was introduced to the public by one in whose judgment in such matters I have uncommon confidence," and a footnote makes it clear that this is Dewey. 168 Although Alexander's "prime interest is in setting children right," looking as he does toward the future of humanity, "no one interested in human improvement can afford to pass by his plan without carefully considering its nature and bearings."169 for

[Ir. Alexander] gives one a fresh and discriminating muscular sense, which not only does away with distortions and expensive strains, but reacts upon one's habitual moods and intellectual operations.

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Now this happens to be at once the most novel and the most difficult thing either to do or to describe. Mr. Alexander has done his best in his book to make clear what he does to regenerate the human system; he has not consciously refrained from giving away his methods, as one might not un aturally suspect who did not know him. But only actual demonstration can make the process clear, and then only after considerable thought and experience. It varies with the individual who is receiving the lessons.170

There are thus at this time two quite different views of the connection between Dewey and Alexander. One comes from estranged students who saw this connection from a distance and necessarily concluded that it was for Dewey merely a matter of physical benefit and relief from tension. The other view, coming from those sharing the Alexander program--or at least sympathetic to it because Dewey thought it valid--suggests that Alexander's influence was far more comprehensive than the first group supposed.

Again, Mr. Eastman appears to suggest that the "momentous crisis" and "emergency" which unquestionably characterized Dewey's state of mind in these years owed much to the aftermath of the views expressed in <u>German Philosophy and Politics</u>; that is, to the unexpected position he felt obliged to assume on World War I. Yet, while this incident no doubt exerted its untimely pressure, the real nature of this "crisis" must be seen in a wider perspective than that of personal relations or of a decision on a particular issue. It is this wider perspective that we must now pause to examine, since Alexander is also in the larger picture.



To trace the intricate details of Dewey's philosophical odyssey from absolutism to the latest refinement of his instrumentalism. with its various critical moments, turning points and retracings, is not only beyond our present need, but is something he himself felt unable to do. 171 Yet certain large stages do appear which are generally recognized, and which enable us to see why Dewey was particularly receptive to Alexander's ideas at the time of their meeting in 1916-why certain ideas which he previously entertained in a more abstract and perhaps vacillating way were now seen in concrete form. These stages are, roughly, from the beginning of Dewey's philosophical career until the appearance of the Studies in Logical Theory (1903); from then until the publication of Reconstruction in Philosophy (1920). or perhaps, better, Experience and Nature (1925); and iron 1925 forward. 172 These periods are not to be regarded as segments sharply divided from one another, each with contents not found in others, but as marking new departures and new emphases in a continuous career.

The first period, from 1884 until 1903, represents Dewey's progressive departure from Kantian, neo-Kantian and Hegelian idealisms in metaphysics, and is characterized positively by a growing interest in psychology, science and its method, and education, the whole presided over by ethical considerations. Morton white has explored this period, and its complex vicissitudes may be seen--though only in part--in his <u>Origins of Dewey's Instrumentalism</u> (1943). The second and third periods, from 1903 to 1920 (1925), and from 1925

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onward, have been described by Dr. Joseph Ratner as, respectively, times when

... Dewey was preoccupied with the general problem, or the constellation of general problems concerned with locating knowledge within experience; and then he took on the still more general problem of locating experience within nature.173

Our concern in this section will be mainly with the second of these periods, containing as it does the initial impact of Alexander's insights on Dewey's interests at this time. It is important to note, however, that Dewey saw these insights not only as illuminating the place of knowledge within experience, but as having more general implications as well. In 1918, after declaring that Alexander's interpretation of the strain and crisis which has come upon man in his change from the savage to the civilized state "is a contribution to a better understanding of every phase of contemporary life," and that "no one, it seems to me, has grasped the meaning, dangers, and possibilities of this change more lucidly and completely than Mr. Alexander," he says that "there is no aspect of the maladjustments of modern life which does not receive illumination [from his accounts]". He adds.

The ingeniously inclined will have little difficulty in paralleling Mr. Alexander's criticism of 'physical culture methods' within any field of our economic and political life.174

"In the period between 1903 and 1920, the publication dates respectively of <u>Studies in Logical Theory and Reconstruction</u> <u>in Philosophy</u>, many things happened in the world," observes Dr. Ratner.¹⁷⁵ And, hardly less remarkable as an understatement, many things also

happened in Dewey's philosophical thinking during this same period. Not least among both types of happenings is a vast and seemingly kaleidoscopic output of philosophical writings, quite baffling to one in search of a pattern with neat and "logical" articulations.¹⁷⁶ In the formal sense, these writings do not exhibit a system of philosophy, nor are they intended to. Rather, there is <u>method</u>, and it is during this period that philosophy itself becomes for Dewey a general method of--and also within--experience of Nature. Yet there are articulations, markers along a road on which he says that, in spite of inconsistencies and shifts, he has "moved fairly steadily in one direction."¹⁷⁷ It is to these markers or articulations, in so far as they can be located, that our attention must now be directed.

For Dewey, at least from 1903 on, any method must be developed within the process of inquiry itself, and not be imported prefabricated from without--especially not from any transcendental, absolute realm beyond the inquiry going on. Dewey's development of his method, then is part of a historical process of events, with Dewey himself within it and interacting with it, (as a "historical process," in Savery's pleasantry.)¹⁷⁸ Thus the general method which he attempted to disengage logically from this general process was in large part conditioned by the events of this period--by his own "undergoings" as well as by his doings." More simply, both subjectmatter and direction, were derived from what was joing cn, philosophically and historically in the narrower sense.



During roughly the first decade of this century the forms of absolute idealism, both German and its British derivatives. were still actual on this continent, though declining. Attacks and refutations of these make up the bulk -- though by no means the whole -of Dewey's writings at this time. The years 1909-1910 have already been pointed out as pivotal in American philosophy, representing the introduction of the value problem on this continent, and the appearance of the new realisms, to be followed shortly by the new idealisms. The value problem thus awakens in an epistemological context, from which it never quite escapes. Dewey's dominant interest shifts to the new epistemologies, though, again, it is by no means confined to them. Both of these shifts of attention in philosophical matters are acknowledged by Dewey, and made more precise by Ratner. 179 What seems not to have been frequently noted, at least in connection with Dewey at this stage, is the sharp rise of interest in physiological psychology, notably in connection with John B. Watson's presentation of behaviorism at Columbia University in 1912 and 1913. 180

Other chronological landmarks which have been suggested so far are Eastman's indication that <u>German Philosophy and Politics</u> (1915), which came of a decision "which seemed for a time to change [Dewey's] whole thinking," his recourse to Alexander (1916), "who opened a new chapter in his life," somehow, Ratner's selection of the years 1917-1923 as containing "by far the major part of his publicist writings,"¹⁸¹ and Allport's declaration that

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When between 1917 and 1922 he decided to dispense with instincts, the need for a dynamic unit, one that should be "assertive, insistent, self-penetrating" became all the more urgent.¹⁸²

This "dynamic unit" turns out to be habit, and Allport adds in a note:

The dates represent the publication of 'The Need for a Social Psychology,' <u>Psychol. Rev.</u>, 24, 266-277, and <u>Human Nature and Conduct</u>, respectively.183

There are other expressions of Dewey's whose dates are significant, to which reference will be made in due course. At this point there is profit in looking more carefully at the dates just now listed, since, with slight but necessary revisions, they are seen to contain implications important for us and not otherwise visible. Dr. Allport's span is much too long. 1922 is indeed the publication date of Human Nature and Conduct, but the argument of this work was presented in the spring of 1918 as a series of lectures at Stanford University in California.¹⁸⁴ The reasons for the delay in their publication are not relevant here, but what does matter is that Dewey's dismissal of instinct and his recognition of habit as supplying the need for a "dynamic unit" really occurred, by Allport's account, between 1917 and 1918. Similarly, although in dating the period under consideration (1903-1920) Ratner terminates it with the publication of Reconstruction in Philosophy (1920), the content of this work is the lectures which Dewey gave in Japan and China, chiefly in 1919. The date 1923 which Ratner gives as limiting the period of "the major part of (Dewey's publicist writings" is left unexplained, but the initial date, 1917, is striking.



Futting together the above revisions, we see that the central crisis of this period which we have been attempting to locate actually comes about between 1915 (Eastman's assertion concerning German Philosophy and Politics) and 1919. If, without interpretation as yet, we add other significant events to those just noted, the result is a pattern in which Alexander is seen to appear at a key point. The year 1915 saw the publication of 'The Logic of Judgments of Practice. and German Philosophy and Politics, the theme of the latter indicated by Eastman as at least the occasion of Dewey's having recourse to Alexander. In 1916 Democracy and Education appeared, as did the Essays in Experimental Logic, of which only the Introduction is of that year. In 1917 Dewey published 'The Need for a Recovery of Philosophy, ' in Creative Intelligence. In 1918 he wrote the Introductory Word to Alexander's Man's Supreme Inheritance, and engaged in a sharp exchange with Randolph Bourne concerning this book. 187 In this same year he composed the lectures that were to be published as Human Nature and Conduct, which revolves around the notion of habit, in the exposition of which Alexander is expressly credited with contributing. 188 During 1919 and the early part of 1920, during his lectures in the Orient, Dewey re-thought the main issues of philosophy as he then saw them. On his return to America he published Reconstruction in Philosophy (1920), his first book to cover the whole field, as Ratner notes. 189

The above account, though tentative and somewhat sketchy,

----- is offered without apology or reservation. There is however danger in displaying these matters on a rack of dates, so to speak: the danger of a kind of chronological atomism which makes years or other divisions of the calendar into compartments within which events are first emprisoned and then indexed. There is no surer way of producing a misunderstandin of Dewey's growth and development. He has himself made a point of this, and a review of what he says about it provides us with another means of approach to the years 1915-1919 which supplements the year-by-year account.¹⁹⁰

In his autobiographical account of 1930, 'From Absolutism to Experimentalism,' Dewey breaks off his strictly historical treatment at the end of his fifteen-year drift away from Hegel, which is roughly at the beginning of this century, observing:

The rest of the story of my intellectual development I am unable to record without more faking than I care to indulge in. What I have so far related is so far removed in time that I can talk about myself as another person ... The philosopher ... that I became ... (afterward) ... is too much the self that I still am and is still too much in process of change to lend itself to record.¹⁹¹

Expressing rhetorical envy of "those who can write their intellectual biography in a unified pattern, woven out of a few distinctly discernible strands of interest and influence," he adds.

By contrast, I seem to be unstable, chameleon-like, yielding one after another to many diverse and even incompatible influences; struggling to assimilate something from each and yet strivin to carry it forward in a way that is logically consistent with what has been learned from its predecessors. Upon the whole, the forces that have influenced me have come from persons and from situations more than from books.¹⁹²


After once more disclaiming any intention of chronological continuity, Dewey says that in his intellectual development "there are four special points that seem to stand out." The first is

the importance that the theory and practice of education have had for me: especially the education of the young ... This interest fused with and brought together what might otherwise have been separate interests--that in psychology and that in social institutions and social life ... Education (is) the supreme human interest in which ... other problems, cosmological, moral, logical, come to a head.

The second point is his becoming

troubled by the intellectual scandal that seemed to me involved in the current (and traditional) dualism in logical standpoint and method between something called "science" on the one hand and something called "morals" on the other. 194

The third point concerns "the role of qsychology in philosophy," and is the most vital to our present interest. After restating a point that he had made five years earlier concerning the two diverse currents discernible in James's <u>Psychology</u>--the subjectivist and the biological¹⁹⁵--he says of the latter:

I doubt if we have as yet begun to realize all that is due to William James for the introduction and use of this idea (sc., the biological conception of the psychel); as I have already intimated, I do not think that he fully and consistently realized it himself. Anyway, it worked its way more and more into all my ideas and acted as a ferment to transform old beliefs.¹⁹⁶

There follows an instructive discussion of the present function of psychology in philosophy, difficult to summarize, the main import of which is seen in the following excerpts:

I do not ... think that in the end the connection of psychology with philosophy is, in the abatract, closer than is that of other branches of science. Logically, it stands on the same



plane with them. But historically and at the present juncture the revolution introduced by James had, and still has, a peculiar significance. ... The newer objective psychology supplies the easiest way, pedagogically if not in the abstract, by which to reach a fruitful conception of thought and its work, and thus to better our logical theories--provided thought and logic have anything to do with each other. And in the present state of mem's minds the linking of philosophy to the significant issues of actual experiences is facilitated by constant interaction with the methods and conclusions of psychology. ... The remoteness of psychology from [mathematical and physical] abstractions, its nearness to what is distinctively human, gives it an emphatic claim for a sympathetic hearing at this time.¹⁹⁷

The "fourth heading of this recital" was developed in connection with an increasing recognition on Dewey's part of this human aspect:

The objective biological approach of the Jamesian psychology led straight to the perception of the importance of distinctive social categories, especially communication and participation. It is my conviction that a great deal of our philosophizing needs to be done over again from this point of view, and that there will ultimately result an integrated synthesis in a philosophy congruous with modern science and related to actual needs in education, morals, and religion.¹⁹⁸

These four points do indeed give to his intellectual development "the semblance of a continuity which it does not in fact possess," as he warns us in introducing them, in that they appear---and keep reappearing--successively as dominant interests in Dewey's thinking, though not necessarily in the order in which he mentions them. They are certainly not to be understood as successive "stages," one being left behind as he progresses to the next. If one may be permitted a rather chi erical analogy, these themes can be likened to four subjects treated contrapuntally in free polyphonic

music. The whole process of their development and periodic recurrence must be followed horizontally. Now one, now another comes forward to occupy the center of attention as they are interwoven, the others at times becoming silent, asserting themselves at atill other times under conditions that produce dissonance. To view the process vertically--that is, to select points in the temporal progression and sample the harmonic situation (i.e., the logical consistency) at those points is to stop the process, and often to be confronted with meaningless dissonance for the very reason that the meaning is in the process, and not in its elements taken independently. For better or for worse, Dewey's thought is the intellectual counterpart of such a musical technique. Alexander's teachings appear to have constituted one of these strains, becoming visible at intervals at unexpected places, under any or all of the "four special points" of which Dewey has spoken.

At the time of the meeting of these two men the pattern of Dewey's thinking was an extremely complex one, and even to show the proportions in which the four basic elements were combined at that point would require a separate, though rewarding, study. Further to show the historical background of this combination would constitute a still larger endeavor, though the absence of such a study remains a serious lacuna in what is now available regarding Dewey's intellectual history. The chapter which follows makes no attampt to supply this lacuna. It merely presents a summary account of the doctrine

of <u>Man's Supreme Inheritance</u> and of the parts of the almost contemporaneous <u>Human Nature and Conduct</u> which are relevant to exhibiting the influence of the former on the latter. It is not here suggested that Dewey took over Alexander's notions wholesale; it is a question of selection and assimilation rather than of borrowing. But not to be aware of this "transaction" is to miss much of what Dewey is saying, for example, about habit. This much, at least, will be clear from the sequel.



CHAPTER IV

MAN'S SUPREME INHERITANCE AND HUMAN NATURE AND CONDUCT.

1. Man's Supreme Inheritance.

In the first chapters of <u>Man's Supreme Inheritance</u> Alexander states what he calls "the prime essentials of my theory,"¹ which essentials changed very little in content after he had once set them down. In the later works it is the manner rather than the matter which changes. At any rate Dewey was familiar with this work when in 1918 he wrote the 'Introductory Word' to the edition of that year. In the following summary of these essentials of Alexander's doctrine our intention is to repeat as little as possible of what has been presented above in Chapter II, section 2, and to focus attention on the points which seem to have affected Dewey's thought, rather than to give a full account of Alexander's position.

Briefly, the theoretical part of Alexander's thesis seems to be erected on the relationship between two aspects of "mind" or "self" in the human being, especially the civilized human being of today. There is the "subconscious self", which he sometimes calls "subjective mind," "instinct" or "intuition", and the "conscious self", which is also termed "objective mind" or "reason." In evolving from the savage to the civilized stage, modern man has produced changes more rapidly than he can adapt to them, and, consequently, more rapidly than he can control either

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them or himself unless he faces about and adopts the new technique. These two "selves" in man are in a state of civil war² with each other, and the more the man tries to do <u>directly</u> about resolving this conflict, the worse the conflict becomes. Only an <u>indirect</u> approach, based at the beginning on a universal inhibition, can re-integrate modern man, by re-educating his "sensory appreciation" and providing him with universal conscious control. The conceptions of subconsciousness and instinct, habit, inhibition and conscious control are fundamental, and it is to some aspects of these that we now turn.

The "subconscious self" represents man's native endowment of adaptive responses to environment (instinct) as modified by a complex system of patterns of response which he has acquired by various needs for adaptation to specific demands, which can be gathered together under the single heading of "civilization." This kind of acquired pattern is designated as unconscious habit, and is automatic. In many important cases, it is out of reach of consciousness. This doctrine is projected against the background of organic evolution, particularly the transition from the savage to the present civilized state, so that there are two phases to be considered: (1) the unconscious habits acquired by civilized races and transmitted by heredity to individuals, and (2) the unconscious habits which the individual acquires in civilized environment by unconscious imitation, by "training", and enforced adaptations to



various undesirable and unnatural features of present day life. Modern man's instinctive equipment, even at birth, has become disordered, reduced, and unreliable, so that reliance on it results in disaster to him in most cases. Operationally, then, it is unnecessary to distinguish among instincts, or to distinguish them from unconscious habits as factors which regulate responses. Man's original instinctive equipment is plastic, and at present generally operates as unconscious habit, both sensory and motor. The "subconscious mind", in sum, is "a composite of animal instincts and habits acquired below the plane of reason either by repetition or by suggestion." (p. 20)³ Somewhat more prnately, it is "a manifestation of the partly conscious vital essence, functioning at times very vividly but on the whole incompletely, and from this it follows that our endeavors should be directed to perfecting the self-consciousness of this vital essence."

Now, "the subconscious self is not a possession peculiar to man, but ... it is in fact more active, in many ways more finely developed, in the animal world." At times, as in the presence of some (to us) imperceptible advance of some natural danger threatening the existence of the animal, it looks like prescience. (p. 19) Yet, "as we cannot, except sentimentally, attribute powers of conscious reasoning to the animal world, it is evident that this 'foreknowledge' is due to a delicate coordination of animal senses." (p. 19) These powers are dulled even in animals by centuries of domestication.



After his general discussion of the subconscious self, Alexander offers us "the point which marks the differentiation of man from the animal world and which is first clearly evidenced in the use of the reasoning, intellectual powers of inhibition." (p. 20) It is true that there is evidence of conscious inhibition among the animals. For example, "a wild cat stalking its quarry inhibits the desire to spring prematurely, and controls to a deliberate end its eagerness for the instant gratification of a natural appetite," but in this and in many similar instances, "such instinctive acts of inhibition have been developed through long ages of necessity." (p. 21) In the earlier stages of man's development, Alexander feels, man had also acquired a repertory of subconscious animal powers, and in individual cases the rejection of this guidance of instinct "was frequently a source of danger and of death." (pp. 20-21)

As conditions of living changed from the wild state towards civilization, the need for conscious control became increasingly necessary. "This, plainly, was due to many causes, but chiefly to the limitations enforced by the social habit which grew out of the meed for cooperation." (p. 21) This is the birth of inhibition in its application to everyday life, which "demonstrates the growth of the principle of conscious control which, after countless thousands of years, we are but now beginning to appreciate and understand." (p. 21) Alexander's account of how he supposes this development to have occurred defies either paraphrase or condensation. It is this:

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The first experience must have come to man very early in his development. As soon as any act was proscribed and punishment meted out for its performance, or as soon as a reward was consciously sought--though its attainment necessitated realized, personal danger--there must have been a deliberate, conscious inhibition of natural desires, which in its turn enforced a similar restraint of muscular, physical functioning. As the needs of society widened, this necessity for the daily, hourly inhibition of natural desires increased to a bewildering extent on the prohibitive side. There grew up first "taboos," then the rough formulation of moral and social law, and on the other hand a desire for larger powers which encouraged qualities of emulation and ambition.

Among the infinite diversity of these influences, natural appetites and the modes of gratifying them were ever more and more held in subjection, and the subconscious self or instinct which initiated every action in the lower animal world fell under the subjection of the conscious, dominating intellect or will. And in this process we must not overlook one fact of supreme importance--viz., man still progressed physically and mentally. It is therefore clear that this control acquired by the conscious mind broke no great law of nature, known or unknown, for, if this control had been in conflict with any of those great, and to us as yet incomprehensible forces which have ruled the evolution of species, the animal we call man would have become extinct, as did those early saurian types which failed to fulfil the purpose of development and perished before man's first appearance on this earth. (pp. 21-22)

Abruptly, with no device of transition, there follows a discussion introduced by the sentence: "Before we attempt, then, any exact definition of the subconscious self we must have a clearer comprehension of the terms "will," "mind," and "matter," which may or may not be different aspects of the same force." (p. 22) The sequel suggests that, after speaking of the subjection of the "subconscious self or instinct" to "the conscious, dominating intellect or will" which has been generated by deliberate inhibition, Alexander is now anxious to reassure us of the unity of the physical and mental aspects of man. This suggestion is confirmed at the beginning

of the following chapter, 'Conscious Control.' (pp. 26-27) The main points are worth noting before we pass on to Alexander's conception of conscious control and his account of habit, since in their context they seem to the writer to have had effects on the doctrine of <u>Human Nature and Conduct</u>.

More than two thousand years of philosophical speculation, Alexander reminds us, have left philosophers still at variance as to the relations of these "three essentials" (i.e., will, mind, matter), which fact leads us not to expect a solution from that source. The new, exact science of psychology is more promising, but still in its infancy. For the present, "without touching on the uncertain grounds of speculative philosophy," he promises to explain his conception of the subconscious self as definitely as may be. (p. 22)

In explaining the influence of "mind" or "will" over the body ("matter"), "great prominence has been given to the conception of the subconscious self as an entity within an entity, by the claim that it has absolute control of the bodily functions." This claim has been supported by two types of evidence: the evidence of hypnotism on the one hand, and of the various forms of auto-suggestion and faithhealing on the other. Alexander does not question the facts; genuine lesions can be produced and also healed by hypnotic suggestion alone. Nor does he question the phenomenon of stigmatization or sudden, spectacular faith cures. (pp. 22-23) He does think, however, that such procedures are unnecessary, and even says that the "obtaining of

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(hypnotic) trance is a prostitution and degradation of the objective mind." (p. 24) They certainly do not, in Alexander's view, support the "hypothesis that the hidden entity [subconscious self], when commanded by the will, is able to exert an all powerful influence either beneficent or malignant, the obscure means by which the command may be enforced being variously described." (p. 23) In its origin in the puzzled savage mind, this conception of the subconscious self is all of a piece with totemism.

Both procedures and their hypothesis are unnecessary, because, as it seems to Alexander.

All we know of the evolution or development of life goes to show that it has progressed, and will continue to progress, in the direction of self-consciousness. If we grant the unity of life and the tendency of its evolution, it follows that all the manifestations of what we have called the "subconscious self" are functions of the vital essence or life-force, and that these functions are passing from automatic or unconscious to reasoning or conscious control. This conception does not necessarily imply any distinction between the thing controlled and the control itself. This may be inferred from the use of the word "self-conscious," but the further elucidation of this side of the theory is not germane to the present argument. (op. 23-24, italics added)

I maintain that man may in time obtain complete conscious control of every function of the body, without ... going into any trance induced by hypnotic means, and without any paraphernalia of making reiterated assertions or statements of belief. (p. 24) ... The perfect attainment of this object in ev ry individual would imply a mental and physical ability and a complete immunity from disease that is still a dream of the future. (p. 25)

In this cheerful--if not quite crystal-clear--attitude of mind, we arrive at the central point: conscious control as a universal principle of human activity, and the function of inhibition. This in turn will enable us to understand Dewey's fresh insights into the



difference between automatic, routine habit and intelligent habit which is an ability to meet new situations, and to see a deeper meaning in his remark about the principle of organic habit as the physical agency by which the transition from <u>knowledge</u> to <u>intelligence</u> is effected.⁴

Although Alexander maintains that in the over-all view the evolution or development of life has for countless centuries progressed, and will continue to progress, in the direction of selfconsciousness and self control, he makes an important reservation. His observations and his teaching experience have led him to conclude that during the past three or four hundred years, and notably in very recent years,⁵ civilized man has undergone a serious degeneration in the matter of his "sensory appreciations" because his subconscious (instinctive) equipment has proved inadequate to meet the rapid and artificial changes which civilization itself has brought about. Most civilized men suffer from "debauched kinaesthesia": the individual's "sense registers"⁶ are not correctly reporting the relations between the various members of his body, nor between the man and his environment. In other words, not only is his kinaesthetic sense disordered, but, in consequence, his other senses as well.⁷

The results are plain to those who will look: Lack of control of sense impulses is visible everywhere. The children of civilized man are not even born with the same instinctive equipment as those who were born a generation ago, much less with the instincts



of savages and wild animals, which are more adequate in their respective situations.⁸ There is a circular process going on in this regard. The demands of civilized life cannot be met by man's subconscious self (instincts),⁹ and the latter have in consequence become distorted. This distortion is transmitted by heredity and accentuated by faulty training. The result of this at present is a severe crisis for civilized man. He can no longer rely safely on his subconscious or instinctive guidance, and must learn conscious control and adaptation if evolution is to continue. After having discovered the causes of this situation, Alexander proposes a new principle--also his discovery-which alone can provide the remedy.

It is an "unquestionable fact that the subconsciousness can be educated below the plane of reason."¹⁰ That is, plastic native responses can be modified and combined by spontaneous initation of others, by early training, and by unthinking routine, in a manner which builds in unconscious habits which do not involve consciousness at all.¹¹ These sets become automatic and "feel" right to the individual, although, in Alexandor's thesis, they are actually "wrong." On the other hand, civilized life demands an increasingly complex range of conscious adaptations, and systems of habits are also built up at the level of reason, often in indifference to proper physiological function, and in conflict with the automatic mechanisms of the subconscious self. These latter are of a sensory and motor character, while the former operate on the "plane of reason." Hence the state



of civil war in most civilized individuals between subconscious impulses and conscious purposes.

Moreover, since the disordered instinctive apparatus comes by habituation to "feel right", that is, not to disquiet conscious activity, the individual is not only unconscious of the disorder, but he <u>cannot</u> be made directly conscious of it. Thus, for example, when a golfer tries to correct his swing, he performs in terms of his acquired muscular habits and his "feelings" of them, so that the more he tries <u>that way</u>, the more he fixes his previous wrong muscular habits.¹² Left to himself, he cannot know why he is unable to achieve his end. In order to achieve this, he must learn a new kind of conscious control which will put his subconscious self in continuity with and in subjection to his reason. It is only thus that integration will be restored, the civil war ended, and--when this kind of control has become general--the prosperous evolution of the race assured.

In the acquisition of this conscious self-control, Alexander holds, the first and greatest stumbling-block is "rigidity of mind."¹³ The opposite of this is open-mindedness, sensitiveness to impressions, responsiveness.

This rigidity results in a fixed habit of thought and its concomitant evils, among which is the subjection of functional and muscular habits to subconscious control.¹⁴

The meaning of this statement is somewhat cleared up by an example:



When a person comes to Alexander with some crippling defect which is due to the improper use of some organ or set of muscles, and when he has shown the person how to use the organ or muscles in the proper way, the response is invariably, "I can't." This indicates directly that the control of the part affected is entirely subconscious; otherwise it could be controlled consciously. Now--apart from Alexander's method -- this subconscious control would have to be influenced in one of two ways: either by hypnotic suggestion and trance, or by "reiterated commands of the objective mind." under which heading faith-healing and autosuggestion are included. Now in the first case, even supposing that the habit of the subconscious control is changed, the conscious mind is left in exactly the same condition as before; it has been merely by-passed. In the second case, the reiterated commands either "substitute by repetition one habit for another without any apprehension by the intelligence of the true method of the exchange." or they extinguish the pain responses nature's warning, without changing anything else in the situation.

Briefly, all three methods seek to reach the subjective mind by deadening the objective or conscious mind, and the centre and backbone of my theory and practice ... is that the CONSCIOUS MIND MUST BE GUICKEMED.

It will be seen from this statement that my theory is in some ways a revolutionary one, since all earlier methods have in some form or another sought to put the flexible working of the true consciousness out of action in order to reach the subconsciousness. The result of these methods is, logically and inevitably, an endeavor to alter a bad subjective habit whilst the objective habit of thought is left unchanged.¹⁵

These methods are "debasing to the primary functions of the intelligence," which are aimed at integral conscious control.



To sum up these negative considerations, it is of no avail to change a subconscious habit by the mechanics of hypnosis, because the habit of the conscious mind is left unaltered, and the conflict between "subjective" and "objective" mind merely shifts ground. It is also impossible to change such a subconscious habit directly, that is, by means of "reiterated commands of the objective [conscious] mind." The response to these "commands" is necessarily om terms of the sensori-motor habits one is trying to correct, and moreover the very "commands" are framed in terms of "debauched" sensori-motor conceptions. The conscious self does not "know" what the correct coordination should be, otherwise there would be no problem. The best that can be expected from such a direct conscious approach to changing a habit is that one pattern is substituted for another, both of which are "out of communication with the reason." In correcting poor posture in this manner, for example, one can manage consciously to stand differently -- at least for awhile. But if the new attitude is merely a sensori-motor pattern also isolated from intelligence or integral conscious control, one indeed stands differently, but, as Dewey later puts it, "only a different kind of badly. "16

Of the many accounts which Alexander gives of the positive side or method of his "conscious control," the clearest for our purposes is given in Part II, Chapter III, 'The Processes of Conscious Guidance and Control!¹⁷ The "crux"¹⁶ of this conception, once more, is the need for conscious control as a universal, and the consequent

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need for radical re-education. Some degree of partial conscious control is obviously present in every normally educated individual, "certain instincts commanding certain functions, whilst other functions are conducted deliberately."¹⁹ But this is a haphazard process, resulting in conflicts and tensions because of the misuse of bodily functions. Hence wrong habits must be broken down and replaced by correct ones. This involves <u>total</u> re-education,²⁰ in which the first effort must be directed toward the conscious mind, by "establishing in the pupil's mind the connection which exists between cause and effect in every function of the human body."²¹

In the performance of any muscular action by conscious control there are four essential stages:

- (1) The conception of the movement required;
- (2) The inhibition of erroneous preconceived ideas which subconsciously suggest the manner in which the movement or series of movements should be performed;
- (3) The new and conscious mental orders which will set in motion the muscular mechanism essential to the correct performance of the action;
- (4) The movements (contractions and expansions) of the muscles which will carry out the mental orders.²²

There follows a concrete example of the effects of the application of traditional ("wrong") methods and then of the correct method to a case of incorrect breathing, set down in physiological terms, after which Alexander invites us to "follow the individual through the four stages in the inculcation of the principles of conscious control" in more general or theoretical terms. Since the terms and the tenor of this



presentation are of great importance, it would be unsafe to present this account other than literally:

 In the first place it is necessary that he should have a clear understanding of the faults we seek to remedy. No tacit compliance on his part to a treatment, the process of which he does not understand, will be of the slightest value.²³

This, of course, is obvious enough from the term "conscious control", but the purpose of placing it as the first or preliminary step is to enable the "pupil" to see with increasing clarity and at first hand experience that he cannot, of himself and by direct efforts or particular conscious "orders", correct the improper "uses" which he has been subconsciously and habitually making of his organism.

(2) In the second place he must be taught to realize his erroneous conceptions which result in erroneous movements, and this, whether the conceptions be conscious or subconscious. He must also be taught to inhibit, and, finally, to eradicate these preconceived ideas and the mental order or series of orders which follow from them. Only then can be give the correct guiding orders as next described.²⁴

The presupposition which underlies this and the following steps is that of "ideo-motor action" and "ideo-motor centres" of the brain, as is clear from a parallel discussion in which Alexander uses this term,²⁵ and from the following passage, which illuminates the points in hand:

In all such efforts to apprehend and control mental habits, the first and only real difficulty is to overcome the preliminary inertia of mind in order to combat the subjective habit. The brain becomes used to thinking in a certain way, it works in a groove, and when set in action, slides along the familiar, wellworn path; but when once it is lifted out of the groove, it is astonishing to see how easily it may be directed. At first it will have a tendency to return to its old manner of working by means of one mechanical unintelligent operation, but the groove soon fills, and although thereafter we may be able to use the old path if we choose, we are no longer bound to it.²⁶


- In the third place, then, he must learn to give the correct (3)orders to the mechanisms involved, and there must be a clear differentiation in his mind between the giving of the order and the performance of the act ordered and carried out through the medium of the muscles. The whole principle of volition and inhibition are implicit in the recognition of this differentiation. Thus ..., we will suppose that I have requested the pupil to order the spine to lengthan and the neck to relax. If, instead of merely framing and holding this desire in his mind, he attempts the physical performance of these acts, he will invariably stiffen the muscles of his neck and shorten his spine, and the muscles will contract in accordance with the old associations. In effect it will be seen that in this as in all other cases, stress must be laid on the point that it is the means and not the end which must be considered. When the end is held in mind, instinct or long habit will always seek to attain the end by habitual methods. The action is performed below the level of consciousness in its various stages, and only rises to the level of consciousness when the end is being attained by the correct "means whereby."
 - (4) In the fourth place, when the correct guiding orders have been practised and given by the mind--a result attained by attention and the instruction of the teacher--the muscles involved will come into play in different combinations under the control of conscious guidance, a reasoned act will take the place of the series of habitual, unconsidered movements which have resulted in the deformation of the body. And it must be kept clearly in mind that the whole of the old series of movements has been correlated and compacted into one indivisible and rigid sequence which has invariably followed the one mental order that started the train; such an order, for instance, as "Stand upright."²⁷

It must be pointed out that the last sentence of the above quotation refers to the "old series of movements" throughout. The "rigid sequence" is the subconscious, injurious pattern that must be broken down, and not the new, "different combinations under the control of conscious guidance." This is not made clear by the words quoted, but will be seen presently in the distinction between unconscious and conscious habit--gr habit consciously controlled.²⁸

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There are two basic conceptions bearing on the Alexander technique which are not mentioned in this presentation, which, although external to its application, are necessary to its understanding. One of these is that the correct, new kinaesthetic experiences must in practice be given to the "pupil" by the teacher by physical manipulation. The teacher puts the pupil in the "position of mechanical advantage" appropriate to his individual physiological makeup. This, as we have seen, is because the pupil could not discover this organic relationship for hinself by consulting his own sensory experience, since by hypothesis the sensory registers of most people at present are "debauched," and report bodily relations falsely because of wrong subconscious habits unwittingly acquired. The correct "position of mechanical advantage" is thus bound to "feel" wrong to the individual at first precisely because of these bad physical habits. The only alternative to his being put right by an experienced teacher is that the individual travel the long and arduous road of experimentation before mirrors, as Alexander did, attempting to find out scientifically and intellectually the proper "use of the self," in spite of his unreliable sense experiences. In this Alexander does not promise most people much success. 29

The other point is that once the properly integrated conscious control of a function--say, the breathing apparatus--is acquired, it is no longer conscious in the sense in which it was so during the process of acquiring this control.

It would be absurd to suppose that thereafter this person should in his waking moments deliberately

apprehend each separate working of his lungs, any more than we should expect the busy manager of affairs constantly to supervise the routine of his well-ordered staff.

Once proper control has been mastered, the actual movements that follow are returned to the automatic or subconscious level. The difference is that now the subconscious mind is continuous with and integrated with the conscious mind, and the conscious mind now only interferes when some deviation from the proper "use of the self" is threatened.

Thus it will be seen that the difference between the new habit and the old is that our old was our master and ruled us, whilst the new is our servant ready to carry out our lightest wish without question, though always working quietly and unobtrusively on our behalf in accordance with the most recent orders given.³¹

Since the subconscious mind is "only a synonym for that rigid routine we finally call habit, this rigid routine being the stumbling-block to rapid adaptability, to the assimilation of ideas, to originality,"³² we must seek further clarification in Alexander's account of instinct and habit and their interrelations.

Alexander's most general statement concerning instinct is:

I define instinct as the result of the accumulated subconscious psycho-physical experiences of man at all stages of his development, which continue with us until, singly or collectively, we reach the stage of conscious control. 33

Instinct is always subconscious, (once, "partly conscious")³⁴ control, but its primary reference is to the mechanisms of adaptive response which are transmitted by heredity and modified in rudimentary ways below the plane of consciousness. Because Alexander's chief interest



is in reeducating modern civilized man to conscious control, which is man's supreme inheritance and the goal of his evolution, 35 he usually takes him as he finds him. That is, he includes under "instinct" not only native response patterns, but also the complex organization of automatic attitudes and mechanisms which the individual has acquired in civilized environment by "education below the plane of reason," of which he is not -- and for the most part cannot be--conscious. Man is thus left in an awkward position. He is without the advantage instinct still confers on the savage ih his simple environment, on the one hand, 36 since "during the advance of civilization mankind has lost the faculty we call instinct, the faculty which guided man in a state of nature as it still guides the lower animal world."37 On the other hand, his acquired habits of the subconscious type cannot keep pace with modern life. Instinct or subconscious guidance in either of these two senses can no longer serve him.

Alexander speaks of the "psycho-physical process which we call habit, including developments which have their origin in consciousness as well as those which spring from the subconsciousness." (p. 39) This observation, which introduces one of his discussions of habit, embodies the twofold distinction which makes the doctrine of habit in <u>Man's Supreme Inheritance</u> difficult to follow with certainty in some of its details. The distinction is, on the one hand, (1) between "habits of body," or physical habits, and "habits of



mind", or mental habits, and on the other hand (2) between"subconscious habits" of subjective patterns of the subjective mind, and "conscious" or "objective" habits, of which the individual is or can become aware. These two correlative pairs are not quite parallel, nor are they unrelated.

(1) Alexander uses the term <u>physical</u> or <u>bodily</u> habit to denote "wrong" uses of the sensory and muscular apparatus of the "psycho-physical organism," some of which are transmitted to most of us by heredity, others are acquired by imitation and early training, and still others of which originate in rigid, faulty ideas of one kind or another. The latter may have been at one time consciously entertained, but in time they have frozen into fixed ideas, have dropped to the subconscious level, and are thus no longer subject to conscious control. In thus contrasting bodily with mental habits, Alexander seems to mean "wrong use" or dysfunction of some or all parts of the physiological aspect of the "psycho-physical organism," regardless of the origin of this wrong use.

<u>Mental</u> habits or attitudes are rigid ideas, most often at first adopted deliberately, but afterwards becoming "a fixed habit and so uncontrollable."³⁸ Some may appear to be quite trivial, such as one's preference for sweets, or one's political views. Others may reach the stage of "fixed ideas", obsession, hallucination. But all are equally serious, since each one has a bad effect on bodily function, and is an obstacle to the at ainment of conscious control. The

individual may even be conscious of some of these fixed mental habits which he cannot alter: "I know I am that way, and I can't help it." Usually, however, these mental habits have become subconscious and work their physiological mischief automatically. They are an obstacle to the recovery of physical soundness.³⁹

(2) We have already seen something of Alexander's notion of <u>subconscious</u> ("subjective") mind and habit, and of <u>conscious</u> ("objective") mind and habit. We need only to add here that the term <u>conscious</u> habit usually means a bad <u>mental</u> habit, of which the subject is aware but cannot change of his own volition.⁴⁰ Often these are abnormal desires and cravings, which result from faulty sensory appreciations, and which can be remedied by conscious control. This, says Alexander, is the ordinary sense of "habit," for

it is essential to understand the difference between the habit that is recognized and understood and the habit that is not. The difference ... is that the first can be altered at will and the second cannot. For when real conscious control has been obtained, a "habit" need never become fixed. It is not truly a habit at all. but an order or series of orders given to the subordinate controls of the body, which orders will be carried out until countermanded. ... It will be understood, therefore. that the word "habit" as generally understood, does not apply to the new discipline which it is my aim to establish in the ordinary subconscious realms of our being. ... The conscious, intelligently realized, guiding orders as such may be continued for all time, becoming more effective year by year until they are established as the real and fundamental guidance and control necessary to that which we understand by the words growth and evolution (pp. 52-53).

On the other hand, this new mode of functioning "may be spoken of quite correctly by the same term of 'habit'" once its flexibility is understood; "it is as subject to control as the routine of a well-



organized office" (p. 54). The "orders" indeed become subconscious, but now the whole psycho-physical organism is coordinated and integrated, without undue physical or mental tensions or rigidities.

Since mind and body are not separate entities, but continuous functions, they affect each other reciprocally. Most people today, as we have seen, are guided by "subconscious processes which restrict the use of the conscious reasoning centres; which form what we call habits of mind, that, becoming fixed, are almost beyond the control of reason" (p.50). These subconscious habits not only constitute the closed or prejudiced mind; they are both caused by and themselves cause physical defects. "Even the attempt to carry out a simple action in accordance with subconscious habit is fraught with danger, for it invariably affects in a detrimental manner other parts of the subject's organism which have nothing to do with the particular act or acts attempted" (p. 110). Under the faulty direction of the subconscious, "the subject can hardly fail to cultivate a wrong mental attitude toward life in general and toward the art of living (evolving satisfactorily)" (p. 111), and, unable to distinguish between conscious and subconscious actions, he "suffers from various forms of mental and physical delusions, notably with regard to the physical acts he performs" (p. 110). Contrariwise,

all specific bad habits, such as overindulgence in food, drink, tobacco, etc., evidence a lack of "control" in a certain direction, and the greater number of specific disorders, such as asthma, tuberculosis, cancer, nervous complaints, etc., indicate interference with the normal conditions of the body, lack of control, and imperfect working of the human mechanisms, with displacement

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of different parts of that mechanism, loss of vitality and its inevitable concomitant, lower activity of functioning in all the vital organs.⁴¹

Elsewhere we are assured that all these disorders, including the false poise and carriage of the body, degeneration of lungs, heart and muscular system, "and many more that combine to cause debility, disease, and death, are the result of incorrect habits of mind and body" (p. 52).

The only remedy for this state of affairs--this present great psycho-physical crisis which man is passing through--is the establishment of conscious control. And,

fortunately for us there is not a single one of these habits of mind, with their resultant habits of body, which may not be altered by the inculcation of those principles concerning the true poise of the body which I have called the principles of mechanical advantage, used in co-operation with an understanding of the inhibitory and volitional powers of the objective mind, by which means these deterrent habits can be raised to conscious control (pp. 52-53).

The fundamental principle which we call evolution demands that every human being shall be enabled to attain this conscious control, which, at least indirectly, should govern every last function of his psychophysical makeup.⁴² From this will also result moral improvement, for this control "holds man's animal proclivities in check," and "tends to eradicate and prevent abnormal cravings and desires in any direction."⁴³

We are now in a position to follow with understanding a very close-knit exposition of the steps in the process of re-educating an individual to conscious control, as Alexander presents it in Man's Supreme Inheritance.⁴⁴ In so doing, we can bring into sharper

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focus the twin notions of "orders" and "inhibition" as they occur in practice.

We are first of all reminded that

mental conceptions are the stimuli to the ideo-motor center which passes on the subconscious or conscious guiding orders to the mechanism (p. 127).

That is, "ideas" and habits, whether subconscious or conscious, are dynamic and tendential; they tend to overflow into activity, to have consequences. Now,

in dealing with human defects or imperfections we must consider (1) the inherited subconscious conceptions associated with the mechanisms involved, and (2) also the conceptions which are to be the forerunners of the ideo-motor guiding orders connected with the new and correct use of the different mechanisms (p. 127).

The conceptions themselves, then, both subconscious and conscious, are acts (or habits) which are <u>prior</u> to the operation of the ideo-motor centres, but the guiding orders are qualified as themselves ideo-motor. The conceptions function as stimuli, to which ideo-motor activity is

a response.

In order to establish successfully the latter (correct conception), we must first inhibit the former (incorrect conception), and from the ideo-motor centre project the new and different directing orders which are to influence the complexes involved, gradually eradicating the tendency to employ the incorrect ones, and steadily building up those which are correct and reliable (p. 127).

Inhibition thus appears as the conscious extinguishing of the dynamic (S - R) nexus between an undesirable idea or (more usually) habit and its corresponding motor activity. It is a simple "not-doing", a "Stop!", and "not the same thing at all as a direct order [to the contrary]".⁴⁵ If inhibition were the latter, it would be merely the



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exertion of force in the opposite direction, creating a second harmful set of tensions, compounding rather than remedying the difficulty. Again, positive orders as <u>conceptions</u> are also at first prior to and independent of motor activity. The process of re-education consists precisely in connecting them up <u>consciously</u> with the correct, supple response which is integrated with all the others.

It will therefore be understood that if we eliminate the conception established and associated with our defects or imperfections, it means that we are really eliminating our inherited subconsciousness, and all the defective uses of the psycho-physical mechanism connected therewith (p. 127).

At the outset, the chief, if not the only stumbling-block to the teaching of conscious control is mental rigidity: "the preconceptions and habits of thought with regard to the uses of the muscular mechanisms."

Many of these preconceptions are the legacy of instinct, others arise from habitual practices started by a faulty comprehension of the uses of the mechanism, others again by conscious or unconscious imitation of the faults of others. ... These preconceptions and habits of thought, therefore, must be broken down, and since the reactions of mind on body and body on mind are so intimate, it is often necessary to break down these preconceptions of mind by performing muscular acts for the subject vicariously; that is to say, the instructor must move the parts in question while the subject attends to the inhibition of all muscular movements (pp. 127-28, italics added).

It is to be noted that, while the single, old, subconscious "order" which starts "the old train of vicious habitual movements" is being broken down, and its components correctly redistributed under the physical guidance of the instructor, <u>all</u> responses are to be inhibited.

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At first this includes even the slightest muscular response even to the correct verbal "orders." These latter are gradually connected up with the correct physical movements which are <u>given</u> directly to the pupil by manipulation; that is, his actual physical movements are guided by the instructor while the pupil <u>does</u> nothing but inhibit "all customary actions" and <u>think</u> the correct "orders" until the latter are connected up with the correct movements "through the ideo-motor centres." It is especially this phase of the technique that cannot be communicated verbally, but only by direct experience.

The first and most important principle in Alexander's technique or system is, then, inhibition--the negative side--and the second is the positive projection of the correct "orders". That these principles are the core of his re-education program is plain from such succinct statements as the following. Speaking of muscular mechanisms deranged by old, subconscious habits, he says:

The whole purpose of the re-educatory method I advocate is to bring back these muscles into play, not by physical exercises, but by the employment of a position of mechanical advantage and the repetition of the correct inhibiting and guiding mental orders by the pupil, and the correct manipulation and direction by the teacher, until the two psycho-physical factors become an established psycho-physical habit.⁴⁰

This psycho-physical habit is, of course, flexible and consciously controlled.

Implied in this program is another important principle which Alexander never tires of repeating: If one holds in mind primarily the "end" one intends to accomplish, the process must take place

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according to the faulty subconscious habit, which operates all of a piece. Hence one must always keep primarily in mind the "meanswhereby", and treat these each as "ends". This is to say that an "end" such as is represented in the order, "Stand up straight!" cannot, by the nature of the case, b successfully achieved <u>directly</u>, but only <u>indirectly</u>, by issuing the appropriate series of correct conscious orders which effect that action, after inhibiting the response to the old, subconscious order.

It is essential, in the necessary re-education of the subject through conscious guidance and control, that in every case the "means whereby" rather than the end should be held in mind. As long as the "end" is held in mind instead of the "means," the muscular act, or series of acts, will always be performed in accordance with the old habits. When each stage of the series essential to the "means whereby" is correctly apprehended by the conscious mind of the subject, the old habits can be broken up, and every muscular action can be consciously directed until the new and correct guiding sensations have established the new proper habits, which in their turn become subconscious, but on a more highly evolved plane. 47

Again,

The orthodox teaching method hold the "end" in view and not the "means whereby." It depends on the giving of orders on the "endgaining principle--such an order, for instance, as "Swing up and down again in the same orbit," without consideration of the "means whereby"; that is, without making certain that the pupil has the power to maintain a proper position of his spine and back and to use the limbs correctly during the performance of such physical acts.⁴⁸

For Alexander, then, to attempt to gain the "end" <u>directly</u> is either to fail, or to succeed at the price exacted by all bad subconscious habits: wear and tear on the psycho-physical mechanisms, disease, and the rest.

The importance which Alexander himself attaches to these



basic notions may be seen not only from his incessant repetition of them throughout the book, but from the twelve problems which he assures us can be answered in <u>Man's Supreme Inheritance</u>. The four most relevant, here quoted for their characteristic terminology which we shall see reflected in Dewey's writing, are:

- (7) Why the habit of <u>endgaining</u> is probably the most persistent and impeding habit (man) needs to overcome in seeking to make changes in himself or others.
- (8) Why the method of <u>direct approach</u> to a problem of change in behaviour so constantly fails to bring about the desired end, and why the <u>means whereby</u> to an end should depend on an indirect procedure.
- (9) Why man fails so often to put his good ideas into practice, especially when he tries hardest to do so.

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(12) Why, last, but most important of all, the use of the <u>inhibitory processes</u> is the necessary first step in the reconditioning of human behaviour.⁴⁹

Although this twelve point list was written only in 1945, this fact confirms rather than weakens our purpose in calling attention to these four examples. Once more, certain unusual terms or "tags", such as end-gaining, orders, inhibition, the indirect approach to an end through attention to the means whereby, as well as many others, appear as refrains throughout the discussion of Alexander's technique and teaching. This is true not only of his own writings and teaching, but also those of his pupils and many others who were strongly impressed by his work.⁵⁰ That it should be true of the 'Introductory word' which Dewey wrote for <u>Man's Supreme Inheritance</u> is perhaps not surprising, or even significant. But we must now see how the case stands in <u>Human</u> Nature and Conduct.

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2. HUMAN NATURE AND CONDUCT and Alexander.

There are echoes of Alexander's ideas throughout <u>Human Nature</u> and <u>Conduct</u>, but it is in the second chapter of Part One that he, so to speak, makes his personal appearance. He is twice cited by name, and in the second instance is explicitly designated as the source of the theory of the role of inhibition in the indirect process or "flank movement" which Dewey has now come to see as the only way in which habit can be changed.⁵¹

The stage had been set for the whole work -- and for Alexander's early appearance -- in the preceding chapter, where we are at once confronted with the conception of habit as essentially interaction, and not a "subcutaneous", private possession. Though acquired, habits resemble physiological functions in that they are both "ways of using and incorporating the environment in which the latter has its say as surely as the former" (p. 15). Habits are arts, involving skill of sensory and motor organs, cunning or craft, and objective materials and energies which they assimilate in order to command the environment. They require order, discipline, and manifest technique (pp. 14-15). Also, "they can be studied as objectively as physiological functions. and they can be modified by change of either personal or social elements" (p. 16). But "personal traits are functions of social situations" (p. 20), so that habit has, so to speak, two faces. The one looks toward the social side, the other toward the individual or personal side.



Cognate to this distinction, yet another is offered to us in the interest of clarifying the types of conditions which need to be controlled in the changing of habit. This is the distinction between the physical and the moral question.

The former concerns what <u>has</u> happened, and how it happened. To consider this question is indispensable to morals. without an answer to it we cannot tell what forces are at work nor how to direct our actions so as to improve conditions. ... But the moral issue concerns the future. It is prospective. ... The moral problem is that of modifying the factors which now influence future results. To change the working character or will of another we have to alter objective conditions which enter into his habits" (p. 19).

Although habits are arts involving skill of sensory and motor organs, requiring order, discipline and manifest technique on the part of the individual agent, the objective materials and energies which they incorporate provide the sole means of changing habit. That is to say, we cannot simply <u>replace</u> one habit by another in curselves, others, or in society (custom) by attempting to manipulate the mechanism itself as already established:

We cannot change habit directly: that notion is magic. But we can change it indirectly by modifying conditions, by an intelligent selecting and weighing of the objects which engage attention and which influence the fulfilment of desires (p. 20).

Since the physical question is prior to the moral one and must be answered first, we must inquire what habit is and how it operates, and this in the individual human being, the smallest unit of conduct. In other words, we must ask an account of habit in terms which are primarily those of physiological psychology. The social side of habit temporarily recedes.

What, then, are habits? As bad habits illustrate so well, habits are affections that have projectile power.

All habits are demands for certain kinds of activity; and they constitute the self. In any intelligible sense of the word will, they are will. They form our effective desires and they furnish us with our working capacities. They rule our thoughts, determining which shall appear and be strong and which shall pass from light into obscurity (p. 25).

But, though we have narrowed our view to its psycho-physical side, i.e., its workings in the individual, we still find habit to be a means. (pp. 25-26).

To expect to get results without intelligent control of means, or to suppose that means can exist and remain inert and inoperative, we are again reminded, is to appeal to magic (pp. 26-27). This superstition is nevertheless current even among cultivated persons, continues Dewey, which fact had been recently brought home to him forcibly by a friend, Mr. F. M. Alexander, an explicit exposition of whose doctrine occupies most of the fifteen pages which follow.

Presumably to allay any suspicion that we are being referred to a health faddist, Dewey at once sets Alexander in a context which can hardly fail to interest the social psychologist and even the philosopher. Alexander had said that these cultivated, superstitious people

suppose that if one is told what to do, if the right <u>end</u> is pointed to them, all that is required in order to bring about the right act is wish or will on the part of the one who is to act. ... He pointed out that this belief is on a par with primitive magic in its neglect of attention to the means which are involved in reaching an end. And he went on to say that the prevalence of this belief, starting with false notions about the control of the body and extending to control of mind and character. is the greatest bar



to intelligent social progress. It bars the way because it makes us neglect intelligent inquiry to discover the means which will produce a desired result, and intelligent invention to procure the means. In short, it leaves out the importance of intelligently controlled habit (pp. 27-28).

One wonders if the former actor himself could have contrived a more dramatic entrance, or a more impressive introduction to his audience. But it is only an introduction. Performance follows.

We may cite his illustration of the real nature of a physical aim or <u>order</u> and its execution in its contrast with the current false notion. A man who has a bad habitual posture tells himself, or is told, to stand up straight. If he ... responds, he braces himself, goes through certain movements, and it is assumed that the desired result is substantially attained; and that the position is retained at least as long as the man keeps the <u>idea</u> or <u>order</u> in his mind (p. 28), italics added.

These two assumptions really amount to this, when generalized: (1) The means or effective conditions of the realization of a purpose exist independently of established habit and even that they may be set in motion in opposition to habit; and, (2) The means are already there, so that the failure to stand erect is entirely due to failure of purpose and desire (p. 28). Yet in the case of paralysis or a broken leg we make no such assumptions; we appreciate the importance of objective conditions (p. 29).

In the ten pages which follow this presentation of Alexander, Dewey himself presides over the discussion in his own name, not only as commentator, but as a philosopher who, through Alexander, has suddenly experienced what the Gestaltists call "closure," or what other psychologists call the "Aha!"⁵² One might say that a Copernican Revolution has taken place as a result: thought now revolves around



habit, instead of habit around thought as hitherto and in "ordinary psychology (p. 30)". The elements have been prepared, to be sure, and one would have to be tone deaf indeed not to recognize the idiom of James, the antipathy to watson's position, and a new bias against psycho-analysis. The philosophical generalizations are somewhat startling, but to grasp them we must follow Dewey's argument in detail, in its winding course. The alternative is to stand aside and criticize from without.

The exposition continues with Alexander's example of posture and its conditions. "A man who <u>can</u> stand properly does so, and only a man who can, does. In the former case, fiats of will are unnecessary, and in the latter useless"(p. 29). By standing improperly, a man forms a <u>positive, forceful habit of so doing</u>. Commonly, though incorrectly, it is supposed that such a person is simply failing to do the right thing, and that this can be remedied "by an order of will."

This is absurd.

Conditions have been formed for producing a bad result, and the bad result will occur as long as those conditions exist. They can no more be dismissed by a direct effort of will than the conditions which create drought can be dispelled by whistling for wind. It is as reasonable to expect a fire to go out when it is ordered to stop burning as to suppose that a man can stand straight in consequence of a <u>direct action of thought and desire</u>. The fire can be put out only by changing objective conditions; it is the same with rectification of bad posture (p. 29, italics added).

The meaning of this is of course not that one with a bad postural habit is unable to make a <u>change</u> at will; it is that he cannot make the <u>correct</u> change.


Something happens when a man acts upon his idea of standing straight. For a little while he stands differently, but only a different kind of badly. He then takes the unaccustomed feeling which accompanies his unusual stand as evidence that he is now standing right. But there are many ways of standing badly, and he has simply shifted his usual way to a compensatory bad way at some opposite extreme (pp. 29-30).

This is the familiar Alexandrian thesis that the change is made under the "subconscious" guidance of "debauched" kinaesthetic habits, and that an attempt to rectify such a habit directly usually results in merely exerting force in the opposite direction.⁵³ The result is still "wrong" because made under the old (unreliable) objective conditions: the bad "instinctive" habit pattern.

Dewey pauses at this point to insert some psychological remarks which have important philosophical implications. When we realize that the direct, voluntary attempt to rectify incorrect posture is unsatisfactory, we are likely to conclude that "control of the <u>body</u> is physical and hence is external to mind and will" (p. 30). If we transfer the command inside character and mind, we may still fancy that an idea of an end and the desire to realize it will take immediate effect. And even when we recognize that habits must intervane between wish and execution in the case of bodily acts, we retain the illusion that we can by-pass habit in the case of mental and moral acts. This sharpens the distinction between non-moral and moral activities, and we tend to confine the latter strictly within a private, immaterial realm.

But in fact, formation of ideas as well as their execution depends upon habit. If we could form a correct idea without a correct

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habit, then possibly we could carry it out irrespective of habit. But a wish gets definite form only in connection with an idea, and an idea gets shape and consistency only when it has a habit back of it. Only when a man can already perform an act of standing straight does he know what it is like to have a right posture and only then can he summon the idea required for proper execution. The act must come before the thought, and a habit before an ability to evoke the thought at will. Ordinary psychology reverses the actual state of affairs (p. 30, italics added to last sentence but one.)

The spontaneous generation of ideas, meanings, purposes, in a reason pure of all influence from prior habit is a fiction.

But pure sensations out of which ideas can be framed apart from habit are equally fictitious. The sensations and ideas which are the "stuff" of thought and purpose are alike affected by habits manifested in the acts which give rise to sensations and meanings. ... Distinct and independent sensory qualities, far from being original elements, are the products of a highly skilled analysis which disposes of immense technical scientific resources. To be able to single out a definitive sensory element in any field is evidence of a high degree of previous training, that is, of wellformed habit (p. 31, italics added).

To admit that the idea of, say, standing erect depends on sensory materials is equivalent to recognizing that this idea depends on habitual attitudes which govern concrete sensory materials. Habit is a medium which filters all material which reaches our perception and thought, but it also adds qualities and rearranges what is received. Ideas and sensations alike depend on experience, but "the experience upon which they both depend is the <u>operation of habits--originally of</u> instincts" (p. 33, italics added).

Thus our purposes and commands regarding action (whether physical or moral) come to us through the refracting medium of bodily and moral habits. ... Our ideas are as dependent, to say the least, upon our habits as are our acts upon our conscious thoughts and purposes (p. 33).



What moralists have construed as a necessary conflict between flesh and spirit is really just a disproportion between conscious purpose and established organic habit. The moralists, with their reversed psychology, have simply failed to see this. As Dewey sees it, "only the man who can maintain a correct posture has the stuff out of which to form that idea of standing erect which can be the starting point of a right act. Only the man whose habits are already good can know what the good is" (p. 32). The immediate, seemingly instinctive or intuitive element in judgments of action -- the feeling of the direction and end of various lines of behavior -- is in reality the feeling of habits working below direct consciousness. This intuitive element is valuable or the reverse in accord with the quality of dominant habits. Aristotle seems to have had something like this in mind when he remarked that the untutored moral perceptions of a good man are usually trustworthy, those of a bad character, But, adds Dewey, Aristotle's defect at this point is his not not. having noted "that the influence of social custom as well as personal habit has to be taken into account in estimating who is the good man and the good judge" (pp. 32-33).

Returning now to habit as means or mediating function, Dewey reminds us that there are two ways in which this is so.

what is true of the dependence of execution of an idea upon habit is true, then, of the formation and quality of the idea (p. 33).

That is to say, habits give shape to the discriminated materials of



sensation and perception from which an idea (plan of action) is formed, (thus, be it noted, operating as a determining factor in cognition itself,) and habit likewise determines the manner in which an idea is executed in activity. This latter aspect is next examined in an Alexandrian atmosphere, and presently it affords Dewey an equally Alexandrian "insight" into the mind-body relation.

Let us suppose the chance existence of a right, concrete idea in a human subject; not just the words, but a concrete idea leading to action. When the possessor of this idea tries to act upon it, its execution must be by means of a mechanism already there.

If this is defective or perverted, the best intention in the world will yield bad results. In the case of no other engine does one suppose that a defective machine will turn out good goods simply because it is invited to. Everywhere else we recognize that the design and structure of the agency employed tell directly upon the work done. Given a bad habit and the "will" or mental direction to get a good result, and the actual happening is a reverse or looking-glass manifestation of the usual fault--a compensatory twist in the opposite direction (p.33).

The doctrine, the language, and even the example of the "engine" leave no doubt as to the influence of Alexander here.⁵⁴

If we refuse to recognize this fact, continues Dewey, we are led to a separation of mind from oody, and to the supposition that mental or "psychical" mechanisms are <u>different in kind</u> from those of bodily operations and independent of them. This supposition is found in more subtle form even in "scientific" theories. Psychoanalysis, for instance, supposes that mental habits can be straightened out by purely psychical manipulation without reference to the distortions of

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sensation and perception which are due to bad bodily sets. "Scientific" nerve psychologists, on the other hand, suppose that they can rectify conduct by curing a particular diseased cell or local lesion.

There follows a generalized, and therefore, in Dewey's view philosophical discussion of the terms "means" and "ends", and their relative denotations. In this case we need not call attention to the influence of Alexander, for Dewey does this explicitly himself (p. 35, n.).

If one grasps the fact that eans <u>are</u> means; that is, intermediates, middle terms, one has done with the ordinary means-ends dualism (p. 34). "The terms denote not a division in reality, but a distinction in judgment;" if we fail to understand this fact, we cannot understand the nature of habits, nor pass beyond the usual separation of moral and non-moral in conduct (p. 36). The "distinction arises in surveying the <u>course</u> of a proposed <u>line</u> of action, a connected series in time. The "end" is the last act thought of; the means are the acts to be performed prior to it in time"(p. 34). More technically, "'end' is a name for a series of acts taken collectively--like the term army. 'Means' is a name for the same series taken distributively-like this soldier, that officer" (p. 36). To think of the end is to see the next act in perspective, not permitting it to occupy the entire field of vision.

To bear the end in mind signifies that " should not stop thinking about our <u>next</u> act until we form some reasonably clear idea of the <u>course</u> of action to which it Som its us. To attain a remote end means on the other hand to treat the end as a series of means (p. 36). ... We must take our mind off from [the end] and attend to the act which is next to be performed. We must make that the end (p. 34).

Exception is of course made for cases where automatic or customary habit

determines the course of the series; then all that is needed is a cue to set it off (p. 34).

To call an end distant or remote, or in fact to call it an end at all, is to imply that obstacles intervene between ourselves and it. If it remains a distant end, it becomes a more end: a dream.

As soon as we have projected (an end, we must begin to work backward in thought. We must change what is to be done into a how, the means whereby. The end thus reappears as a series of "what nexts," and the what next of chief importance is the one nearest the present state of the one acting. Only as the end is converted into means is it definitely conceived, or intellectually defined, to say nothing of being executable. We do not know what we are really after until a <u>course</u> of action is mentally worked out (pp. 36-37).

In any course of action, the thing which is closest to us, the means within our power, is a habit. In fact, some habit impeded by circumstances is the source of the projection of the end, and is also the primary means of its realization. The habit is propulsive and moves anyway toward some end or result, whether it is projected as an end in view or not. Moreover, "in actuality each habit operates all the time of waking life" (p. 37), in some degree; but to this point we shall return. Meanwhile we must inquire into what happens when a proposed end involves some change in usual action, or, more succinctly, some change in habit.

Once more we are invited to consider Alexander's case, the action involved in standing straight. In deviating from the habitual pattern, or in rectifying it, the main thing is to find some act which is different from the usual one. As different, it will be also an



unaccustomed act, and its discovery and performance is the "end" to which we must devote all our attention. Otherwise we shall simply reenact the old pattern, no matter what is our conscious command.

The only way of accomplishing this discovery is through a flank movement. We must stop even thinking of standing up straight. To think of it is fatal, for it commits us to the operation of an established habit of standing wrong. We must find an act within our power which is disconnected from any thought about standing. We must start to do another thing which on one side inhibits our falling into the customary bad position and on the other side is the beginning of a series of acts which may lead to the correct posture (p. 35, italics added).²⁹

Take the case of the hard-drinker. If he keeps thinking of not drinking, he is really starting with the stimulus to his habit: the idea of drinking. If he wishes to not-drink, he must find some positive interest or line of action having nothing to do with drinking or standing straight, which will inhibit the drinking series, and which will bring him positively to his end by instituting another, different course of action. "The discovery of this other series is at once his means and his end" (p. 35). More simply, and also more generally,

unless one takes intermediate acts seriously enough to treat them as ends, one wastes one's time in any effort at change of habits. Of the intermediate acts, the most important is the <u>next</u> one. The first or earliest means is the most important <u>end</u> to discover (p. 35).

Dewey does not draw the points together at this juncture, but they seem to be these: In the case of an established, automatic habit, the idea of the terminal end ("end-in-view") suffices to initiate the complete series of intermediate acts leading to it without the intervention of conscious acts. Hence, in the changing of an undesirable habit of this automatic sort, there is need to interrupt or

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inhibit this series by depriving the idea of the terminal end of its "ideo-motor" efficacy at the point where overt action begins, and also need to replace it by another idea which will initiate a new motor series. The first <u>act</u> in the projected new series thus becomes the end to be accomplished, although, since it will be followed by others, it is intermediate--a means--in respect to the series "taken collectively." Thus it is not enough merely to reject or negate the old terminal end, for merely to hold it in view is to provide the stimulus for the old, automatic, propulsive habitual series leading to it.⁵⁶ To change the habit one must take one's attention entirely from the end to be gained and direct it to the next act to be performed, the "means whereby." In thus instituting a change of habit it is not even necessary to know in advance what the new terminal end will be. Any act which is not part of the old series will do in breaking up the undesirable habit.

If habit is propulsive and moves toward some end whether or not we project this as an end-in-view, so that the man who can walk does walk, the man who can talk does talk, and so on, how does it happen, asks Dewey, that we are not always walking and talking? Why do our habits seem so often to be latent and inoperative? The answer lies in the distinction between <u>overt</u>, visibly obvious operation and <u>latent</u> operation. Habits are like the members of a crew, each taking his turn at the wheel: the operation of a given habit "becomes the dominantly characteristic trait of an act only occasionally or rarely" (p. 37). But their work is always team work. The familiar



combination of locomotion and sight in the perception of distance is chosen as an illustration, and it is explained in terms of habit, as opposed to an association of sensations.

The habit of walking is expressed in what a man sees when he keeps still, even in dreams. The recognition of distances and directions of things from his place at rest is the obvious proof of this statement. The habit of locomotion is latent in the sense that it is covered up, counteracted, by a habit of seeing which is definitely at the fore. But counteraction is not suppression. Locomotion is a potential energy, not in any metaphysical sense, but in the physical sense in which potential energy as well as kinetic has to be taken account of in any scientific description, Everything that a man who has the habit of locomotion does and thinks, he does and thinks differently on that account. This fact is recognized in current psychology, but is falsified into an association of sensations (pp. 37-38).

The reason for this last dart, as we know, is that Dewey held sensations and perceptions to be discriminations which presuppose habits already formed, which habits "filter" and even add qualitative determinations to the acts denoted by sensation and perception. It is habit that is prior and basic, not sensation and perception.⁵⁷

It is this constant latent operation of habit, as well as overt operation, that makes character possible. For habits do not simply act: they <u>interact</u>; if this were not so, "there would be simply a bundle, an untied bundle at that, of isolated acts." "Conduct would lack unity, being only a juxtaposition of disconnected reactions to separated situations." As things are, however, environments overlap. "Situations are continuous, and those remote from one another contain like elements, [so that] a continuous modification of habits by one another is constantly going on" (p. 38).



There remain to be mentioned on the side of the "personal elements"⁵⁸ of habit some further details which led Dewey to define the moral situation as viewed from this side. Alexander's influence in the closing pages of what might be called the Alexander chapter of <u>Human Nature and Conduct</u> is perhaps more subtle because the issue is complex and technical beyond Alexander's own resources. Yet closer inspection strongly sugjests that Alexander provided Dewey with the organic cue that confirmed the latter's shift in emphasis from habit as <u>mind</u>, cumulatively funded meanings which are the outcome of previous inquiries, to habit as <u>will</u>, the more dynamic view.⁵⁹

The strength, solidity of a habit is not its own possession, but is due to reinforcement by the force of other habits which it absorbs into itself (p. 38).

This interpenetration is not merely a process of osmosis; it is an achievement requiring thought and effort to bring competing tendencies into a unity (p. 39). Routine specialization works against this process (p. 38), as does the inertia or bias which produces "pigeonhole" minds, in which diverse standards and methods of judgment for scientific, religious and political matters are kept in isolated compartments. Characters so stigmatized may maintain this separation of ways of reacting in consciousness, but not in action; inconsistencies are bound to result from their alternation, since there is really no total pattern of interaction--no strong character (p. 39).

The mutual modification of habits by one another enables us to define the nature of the moral situation (p. 39). This concerns the effect of a given part (a habit or an act) upon the whole(character, the total interaction of habits.) It is neither necessary



nor good to be continually scrutinizing the interaction of habits with one another. At any given time, certain habits must be taken for granted and left to work out their automatic course, or, in the case of acquiring a new habit such as learning French or chess, must be given full attention on their own account. If one were to consider the effect upon his character of each move in chess, or of each new irregular French verb, his skill in chess or French might well be late in arriving. In other words, these acts are not a matter of moral judgment (pp. 39-40).

Nevertheless any act, even that one which passes ordinarily as trivial, may entail such consequences for habit and character as upon occasion to require judgment from the standpoint from the whole body of conduct. It then comes under moral scrutiny (p. 40). Hence, a large factor in morality is to know when to subject acts to a distinctive moral judgment, and when to leave them alone. This

implies that the distinction between the moral and the non-moral is relative, pragmatic, or intellectual (p. 40). It cannot be solidified into a fixed and absolute distinction which puts some acts forever within and others forever without the moral domain, without regard for their place in the context of experience. We cannot commit this error once we understand the relations of one habit to another: that of fluid interaction and mutual modification within the unity which is character. In the interest of preserving and developing this working interaction of habits,

the cumulative effect of insensible modifications worked by a particular habit in the body of preferences may at any moment require attention (p. 40).



Dewey concludes this chapter with a protest against the widespread practice in psychological literature of identifying habit with routine and the repetition of acts. The tendency to repeat acts is in no sense the essence of habit, though it is an incident of many habits.

The essence of habit is an acquired predisposition to ways or modes of response, not to particular acts axcept as, under special conditions, these express a way of bahaving (p. 42).

Thus a man with the habit of yielding to anger may show this habit in only one act of murder, but this act is nonetheless due to habit.

Habit means special sensitiveness or accessibility to certain classes of stimuli, standing predilections and aversions, rather than bare recurrence of specific acts. It means will (p. 42, italics added).

Here then, in the final word, is Dewey's new concept of habit. It was also one of the initial words of this chapter: "Habits are demands for certain kinds of activity; ... they constitute the self. ... they are will" (p. 25). Between these two occurrences of the word, and presumably as part of the explanation of the doctrine implied, Alexander's theory and practice were presented. A brief glance back over this interval, then, should enable us to suglest at least some of the reasons why his ideas were introduced, and why Dewey was so interested in his technique.

Habits are acquired series or courses of activity, complex modifications of native instincts or impulses, which in turn are rooted in structure. They are demands for certain types of activity, projective, energetic, ready for overt activity. They are means for achieving



certain ends when they enter operationally into organizations with elements of the physical or social environment which have their own independent activities. As channeled, vital impulses, they tend constantly toward <u>some</u> specified end, whether n end-in-view or not. But habit (and terminal end) can be changed only by altering the objective conditions of its organization, either on the personal or the environmental side. Intelligence, which is on the personal side, has the task of controlling these objective conditions, thus indirectly modifying the habit, and indirectly achieving the terminal end to which the habit is a means.

Human (i.e., foreseen) ends are achieved only as termini of processes already in motion. The organized interaction of processes in the individual and in the out-door world controls the occurrence of these termini, so that Dewey calls this organization both habit and means. Now, if the processes on the side of the psychophysical organism are not interacting efficiently with those of the environment, the foreseen end can occur only by charce. Hence the end as outcome and the end as foreseen can be made to coincide only if they are construed in terms of the process which generates them. This process is a <u>course</u> of action, a connected series leading <u>de facto</u> to some concrete outcome. The series can be <u>viewed</u> as a whole ("collectively"), and in this aspect called an end; but it can <u>occur</u> only "distributively", that is, one act of the series at a time. Fampulation of the series can accordingly be applied only to each me ber as it occurs, so that each successive "means"



must be treated as the immediate end. The end as outcome cannot be really "known" until it is experienced, and then it is known as the process itself taken collectively. Known this way, it is capable of being projected into the future as a coordinated series of means to subsequent realization: an end-in-view.

Each habit is a propulsive series in its own right, always active latently, needing only its proper stimulus and the absence of inhibitory forces to release it into overt activity and to run its course. But a habit is not an isolated system. It interacts with others by reinforcing, inhibiting, or combining with them. The totality of interacting habits is character or the self, and efficiency requires that the member of this totality be coordinated and integrated. It happens, however, that through early training, habituation or other agencies, physical or mental habits can be acquired which are maintained in isolation from the general pattern. Given their cue, they operate automatically, for the most part unconsciously, coming into conflict with other activities, conscious or not. The consequent impeding of habitual activity generates a situation and an idea, which means that there is a problem to be solved.

It is here that Alexander enters, by showing Dewey the physiological and psychological technique by which the modification and ultimately the integratior of habits is accomplished.

It is important to note that Dewey's interest as he introduces Alexander is in habit as will; that is, in the relation of psycho-

physical mechanisms already established and operating to a purpose or aim and its execution. The problem is exhibited by the case of an aim (end) which is <u>not</u> framed in terms of the conditions of its successful execution. After action follows directly on such an aim, the aim is simply not accomplished, whether or not the agent is aware of this fact. As Alexander pointed out, all the while the agent <u>thinks</u> he is achieving a new end, his habits are carrying on business as usual. The proof is that Alexander needed mirrors to find this out. Thus ends must be gained indirectly, by attention to the means: the habits themselves.

Habit is the proximate means to the next <u>act</u>. Hence to inhibit this act is to inhibit the entire series of which it is the first member. Something must be done which will at once check this first act and evoke an act <u>foreign</u> to the series which is or will be part of another series or habit. The question which remains unanswered is <u>how</u> this can be done. In the matter of poor posture and locomotion, Alexander demonstrated in Dewey's own experience <u>that</u> it can be done, thus settling the question of fact. But we shall have occasion to observe that in <u>Human Nature and Conduct</u> Dewey's explanation of the processes involved did not yet touch the central feature of Alexander's system: the "primary control" as the absolutely fundamental and necessary habit, the primary means to <u>any</u> other habit, idea, or act, and the cnly tasis of psycho-physical integration.⁶⁰

Before we leave the special topic of habit as will, it is



useful to append some observations on the significance of what Dewey saw as Alexander's contribution to this question. There is of course a philosophical background: a historical context, and Dewey alludes to it in this same chapter, though not explicitly as historical.

Since the turn of the century Dewey had vigorously opposed all dualisms, such as mind <u>versus</u> body, thought <u>versus</u> reality, end <u>versus</u> means, and the like, which he always represented as irreconcilable dichotomies resulting from nebulous and even undemocratic "Metaphysics," in the pejorative sense of the word. Dewey refers in this "Alexander chapter" ('Habits and Will') to two of these dualisms, both of which he says are obviated by the correct notion of habit which he is explaining. These are the separation of mind from body and the separation of ends from means.⁶¹ The two pairs are correlative.

The dualism of mind and body Dewey here attributes to a refusal to recognize the importance of the design and structure of the agency employed in executing ideas or aims. This leads to the supposition that mental and bodily operations are <u>different in kind</u>: the one stratospheric and the other terrestrial, if we may put it that way. This of course puts ideas and aims outside the physical process. Similarly, if we conceive ends as distinct from means in reality instead of only in judgment, we place the end outside the process of change and construe it as an immutable, fixed thing.

When affairs are set up this way, one of the traditional



moves has been to posit an immaterial fiat of will outside, before, and independent of the "on oing process" at one end, and a fixed end outside, after, and independent of the change at the other end. The next step is to arrange a transaction between these two extrinsic terms directly, expecting this transaction somehow to effect appropriate and contributory adjustments in the process as the aim (so we suppose) turns into the outcome. For both Dewey and Alexander, however, to attempt to execute a direct act of will (aim) which is not framed in terms of the conditions of its execution is more than the metaphysical error of reaching for an end without considering the means.⁶² What it really amounts to is to by-pass what is actually happening and is going to happen, and thus to have no effect on it--at least not by way of intelligent, conscious control.

In order to resolve these dualisms--mind and body, ends and means--it is necessary to locate ends, motives, aims, outcomes, and even the self entirely within the process. That is, they must not only operate there; they must exist there. In fact, the existence is the process. The self, for instance, is not ready made, but "a self still making through action (p. 139), ... an ongoing process" (p. 140). "It is absurd to ask what induces a man to activity generally speaking. He is an active being and that is all there is to be said on that score" (p. 119). One cannot get behind the activity to ask questions about it. Enerts are defined operationally; mind (" inding") and will ("willing") become specific manifestations of habit, deriving



their dynamic character by being grafted on nutive impulse. Motive is the element in man's total activity which, upon stimulation, results in an act having specified consequences; it does not exist prior to an act and produce it: "It is an act <u>plus</u> a judgment upon some element of it, the judgment being made in the light of the consequences of the act" (p. 120). Ends, too, "arise and function within action" (p. 223). Ends are foreseen consequences which arise in the course of activity and which are employed to give activity added meaning and to direct its further course. They are in no sense ends <u>of</u> action. In being ends of <u>deliberation</u> they are redirecting pivots <u>in</u> action" (p. 225). A curious thing happens also to the commonly presupposed identity of the end-in-view of desire with the object achieved.

The end-in-view of desire is that object which were it present would link into an organized whole activities which are now partial and competing. It is no more like the actual end of desire, or the resulting state attained, than the coupling of cars which have been separated is like an ongoing single train. ... (Ends of desire) are means of removal of obstructions to an ongoing, unified system of activities. ... The desired object is in no sense the end or goal of desire, but it is the <u>sine</u> <u>qua non</u> of that end. ... The object thought of and the object achieved exist in different dimensions (pp. 250-51).

By different dimensions Dewey of course is not referring to diverse kinds of existence. The object desired is not desired for itself, but for its capacity to close the temporarily open "ongoing, unified system of activities" by removing the obstruction and restoring the system to balance.

In either sense, the end is terminal in only a very relative,

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restricted sense. It is not quiescence, for that is Buddhist Nirvana or death.

Desire satisfied does not bring quiescence unqualifiedly, but that kind of quiescence which marks the recovery of unified activity: the absence of internal strife among habits and instincts. Equilibration of activities rather than quiescence is the actual result of satisfied desire. This names the outcome positively... The object of thought and the outcome <u>never</u> agree,(except that neither is really terminal:) For no terminal condition is exclusively terminal. Since it exists in time it has consequences as well as antecedents. In being a consummation it is also a force having causal potentialities. It is initial as well as terminal (p. 252).

Since all is now contained in the process, one never quite arrives. "What is attained is a state of habite which will continue in action and which will determine future results" (p. 253). "It is better to travel than to arrive, ... because traveling is a constant arriving, while arrival that precludes further traveling is most easily attained by going to sleep or dying"(p. 282).

Alexander, in fine, seems indeed to have given concrete form and substance to many ideas which Dewey had been holding in an abstract way. He provided the technique by which fixed and rigid habits could not only be made supple,⁶³ but could also be brought into the integration which he had called <u>mind</u>.⁶⁴ <u>kind</u> is considered anow in a dynamic way, as <u>character</u>, the working interaction of propulsive habits and instincts under intelligent, conscious control, in interaction also with the environment. The social aspect of habit, which is also its moral aspect, now receives greater emphasis. There were other reasons at this time for Dewey's emphasis on the social character of

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behavior,⁶⁵ but Alexander appears to have enabled Dewey to see how the psycho-physical individual, acting as a whole, could be successfully readjusted to environmental conditions, ph sical, social, and even moral, by beginning on the side of applied physiological psychology.



CHAPTER V

THE IMPORTANCE OF SOME ASPECTS OF ALEXANDER'S DOCTRINE FOR DEWEY'S PHILOSOPHY.

At the time of the composition of Human Nature and Conduct Dewey seems to have been weighing especially two chief theses of Alexander's theoretical position which would, if scientifically warranted, have profound implications for the whole of Dewey's thought. They are (1) the as ertion that all or most of the civilized world suffers from "debauched" sensory appreciation, (congenitally, in consequence of evolution, Alexander had said,) and (2) the "new principle" that the head-neck-torso relationship is the most radical of all functions in human behavior, the presupposition of all psychophysical and moral integration. There seems to be no doubt that by at least 1923 Dewey had himself been convinced of the latter of these two assertions from his personal experience of the method, and that he considered the former at least probable. But the absence of any really significant applications or specific elaborations of either of the assertions in his books is an indication of his caution. In striking contrast to this is the hearty acknowledgement of both principles in the introductions written for Alexander's books, coupled with the straightforward characterization of Alexander's theory and practice in general, and of these two principles in particular, as scientific in the strictest sense of the word. In order to see what reconciliation can be found between these two apparently incongruous

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attitudes --- the professional and the private, if we may so call them--we must inquire briefly into how the acceptance of these two key principles would seem to have affected Dewey's general position, and into what else he was occupied with beside writing books.

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The proposition that all or most men, because of the conditions imposed on them by civilized living, have defective sensory equipment has, if developed dialectically, drastic implications for the doctrine expressed in Human Nature and Conduct which we have examined above. For if sensation and perception are discriminations within a total experience of the individual interacting with his social environment, and if these discriminations can be made only through and in terms of habits which are already formed, then perversion of the habits from which the discriminations are derived must affect the quality of the sensory and perceptive elements in experience. What is more serious, sensations and perceptions are integral factors of cognition and judgment, which must also suffer proportionately from this defect. But it also follows that if conduct is moral and essentially social in character -- the thesis of Human Nature and Conduct -then civilized society itself is not only laboring under serious defects, but is by the nature of the case perpetuating these defects. Alexander's unabashed contention was that he was the discoverer and sole possessor of the method whereby this ominous state of affairs can be remedied. adding modestly that it alone can rescue man from disaster and set him



squarely on the hopeful path of further evolution. In his introductions to Alexander's books, Dewey gives the impression of general agreement with this contention.

Reviewers of the American edition of <u>Man's Supreme Inheritance</u> (1918) were for the most part men associated with Dewey, and in some cases also with Alexander. The comprehensive position just sketched is the central theme of this work, and to it the reviewers reacted on the whole with an attitude of acceptance and approval, often tinged with some degree of sceptisism, and usually with acknowledged deference to Dewey's authority.² There were exceptions, however. One of these was Randolph Bourne, a former student of Dewey's who had written two books under his influence, though he later became estranged because of a difference of views on World War I. Bourne reviewed <u>Man's Supreme Inheritance</u> in the <u>New Republic</u>, and a rather sharp exchange with Dewey followed in that journal.³

Bourne raised the question whether the philosophical derivations Alexander made from his discovery were necessary or even valid. "Is it not a mistake," he asks, "when you have so valuable a pragmatic intuition and power, to let your enthusiasm wrap the idea up in a cosmic and evolutionary philosophy which could not, in the nature of the case, be half so persuasive as the technique itself?"⁴ The technique itself he grants as effective, citing Dewey's authority. But of the validity of the philosophical derivations and of Dewey's authority he is less convinced: .

Mr. Alexander rather needs the delighted "introductory word" of Professor Dewey's to justify his own philosophical exuberance. ... Professor Dewey's instrumentalism has held out to Mr. Alexander a helping hand, but has scarcely saved him from getting at times beyond his depth (p. 28).

He then comes to an important point:

The old unconscious days are to be over, and intelligent manipulation is to reign in their stead. But is not the task he suggests a little appalling? For if this next step in evolution is to mean anything it means that every separate human being must make over his bodily coordinations. And the secret of that making-over lies-we must conclude--almost exclusively in the rare intuition and skill of Mr. Alexander. If the school must wait until every one of its children has learned conscious guidance and control, the next step in evolution will be very long delayed (p. 28).

If Bourne intended this as a litmus test for Dewey's

attitude, he got an acid reaction a week later:

Mr. Alexander's book is not concerned with setting forth instrumental, pragmatic or evolutionary philosophy, within which is wrapped a personal intuition or quasi-magical personal knack. His critical contention is that the remedial ills from which humanity suffers on the physical side (with the intellectual and moral ills that result) are due to disassociation of the "higher" nervous structures and functions--those which are the basis of our conscious life--from the "lower"--those which are involved in the execution of bodily postures and movements. Roughly speaking, the latter represent our animal inheritance, "instincts," which have been changed into our habitual attitudes and acts (the "subconscious") without conscious perception and control. The former represent the distinctly human additions up-to-date, our acquired civilization.²

It is Mr. Alexander's contention, continues Dewey, that our educational procedure apparently supposes that the centres of conscious activity have been merely superimposed upon the neuromuscular structures which are our ani al inheritance. Civilized persons, especially intellectuals and leaders, cultivate their "brains" as if they were separate from the rest of their body. .labits (muscular coordinations) are meanwhile



formed under the novel conditions of civilization, so that they operate neither in the natural estate nor under conscious control.

The net outcome, in Mr. Alexander's contention, is the larger number of physical disorders which inflict themselves exclusively upon civilized men, and the large number of neuroses which express themselves in intellectual and moral maladies. The claim is sweeping, and as simple as it is sweeping. If the book is worth reviewing, the thesis is worth stating.

The last remark is a cuff for Bourne, whom Dewey accused of evading the main points of the book in reviewing it.

One can get the impression that Dewey is somewhat more concerned with being fair and keeping the record straight than with defending Alexander, an impression which is not entirely dispelled by the disjunction with which he concludes his reply:

If Mr. Alexander is wrong, the name given to the estate of humanity which would ultimately be produced is of no consequence. If he is right, the change would be so great, the stage introduced into the history of humanity would be of such crucial significance that the use of the word evolution in connection with it is at most a mere matter of literary taste.

When Dewey answers Bourne's sarcasm concerning the appalling task of reeducating everyone in order to make possible the next step in evolution, it becomes clear that he does not think Alexander wrong. It would be harder, he says, to find a greater tribute to the integrity of Alexander's method than this unconscious confession of Bourne's, for

it marks the difference between reliance upon some scheme of magic and the more than a "little" appalling task which confronts man if his civilization is not to end in tragedy. Certainly one of the prime effects of acquaintance with the method of "conscious control" is to make one realize the superficial and over-hasty •

character of the methods upon which we are relying, and the corresponding importance of a fundamental method of education, one which in the course of slow generations will integrate into harmonious coordination our animal inheritance and our distinctively human capacities of intelligence.

Bourne replied to this criticism, once again coming directly to his points, which are "whether Mr. Alexander's philosophy is essential to his technique, and whether his philosophy is relevant to the world situation."⁶ He considers that Dewey is inti ating that the success of the technique proves the truth of the philosophy; that if Alexander cures the neuroses and intellectual and moral maladies of civilized man, his theory of conscious control as the next step in human evolution is thereby established. "This logic would prove the truth of Christian Science or of any other thesis of the cofunctioning of body and mind."

Dewey, in objecting to the word "intuition" as Bourne had applied it to Alexander's discovery, had said that "Mr. Alexander's positive principle ... is experimental; it can be asserted and rendered intelligible in a book; proof lies in <u>doing</u> it." The <u>reader</u> may perhaps get an intuition, he continues, but this is not a full account of Alexander's method! Quoting this barbed shaft, Bourne retorts that there is no evidence in Alexander's book that his principle has been worked out by experimentation, or that he "has ever made the slightest step in the use of his physiclogical technique towards experimental establishment of his simple and sweeping claims."



If his technique has not been worked out experimentally, then I do not see the unfairness in calling it intuitive, for by intuition we ordinarily mean just that gift of knowledge or skill which a person possesses independent of scientific procedure. The technique is empirically established by its success in concrete cases. The thesis and the philosophy behind it remain brilliant guesses, just as interesting and provocative as the theories of Dr. Jung or any of the other workers in this field. ... I cannot agree with [Dewey] that the choice before civilization is limited to "reliance upon some scheme of magic" and the task of putting Mr. Alexander's method into universal operation. I suspect that there are other Messiahs and other evangels, with which Mr. Alexander's method may profitably cooperate.

The scientific <u>account</u> of Alexander's "new principle", as well as its scientific development, were matters of genuine concern for Dewey, as was the seeming logical necessity of putting Mr. Alexander's method into universal operation. But he was already certain of the <u>fact</u> that the technique worked in practice.

Dewey did not answer this rejoinder, or at any rate no reply appeared in the New Republic. This may be explained in part by the fact that less than a week later he was in California delivering the lectures which were to be <u>Human Nature and Conduct</u>.⁷ If there is a reply that he could have made, it is not to be found in this latter work. It seems more likely, however, that Dewey, having thus brusquely been challenged to commit himself on the scientific character of Alexander's work, felt that he was not yet in a position to do so. It is true that in the 'Introductory Word' to <u>Man's Supreme Inheritance</u> he declared that "Mr. Alexander has developed a definite procedure based upon a scientific knowledge of the organism." Yet he also wrote:

As a layman, I am incompetent to pass judgment upon the particular technique through which he would bring about a control of intelligence

over the bodily organism so as not merely to cure but to prevent multitudinous maladies of adjustment. But ... he possesses and offers a definite method for its realization, and even a layman can testify, as I am glad to do, to the efficacy of its working in concrete cases.³

This prudent hesitation is also reflected in Dewey's acknowledgement of Alexander's thanks for this introduction:

I am immensely rejoiced that you are satisfied with my words of introduction. I knew that my intentions were good, but I was not confident of my ability to say the things that would be what you would like to have said by way of introduction. I assure you that I have much more reason to be grateful to you than you have to express your thanks to me.?

There is still another document which sheds some light on Dewey's position with regard to Alexander at this time. It is a letter written to an objector to Alexander's theory of conscious control. The addressee had misconstrued Alexander's conception of conscious control and its relation to sensation. With some vigor, Dewey replies that "what Alexander is attacking as abnormal ... [is] the isolation of the higher or 'intellectual' centres," and that "to him conscious control integrally involves control by sensory appreciations that have been rendered habitually normal ... "10

'Sensory' is here used to cover, of course, all immediate data of bodily organs, 'organic sensations,' as well as general kinesthesias. If you accept James's theory of the emotions, you will be able then to see the extent to which if Mr. Alexander's technique is sound, it is completely impossible that there should be conscious control--in his sense--and the impulses of which you speak remain uncontrolled, or the attitude towards life, liberty, and the pursuit of happiness remain unaffected.

There follows an acrid criticism of psychoanalysis, which Dewey considers to be parallelistic in doctrine and negative in attitude, both



of which features are remedied by Alexander's technique. He then

goes on:

All of the 'psychic' complexes have their basis in organic disco-ordinations and tensions, with compensatory flabbinesses, and his technique is a technique for resolving and unravelling these, reducing the present technique of the psychoanalyst to an incidental accompaniment, and cutting out the elaborate ritualistic mummery with which the present psychoanalysts have been obliged to surround their method. In addition, Mr. Alexander's technique unravels the kinks and complexes by a process of positive replacement in which sound co-ordinations are built up with their corresponding alterations in habitual sensory and emotional date, while at the best the psycho-analysts merely untie a knot and leave the organic causes which produced it untouched.

Without unduly pressing these observations, and bearing in mind the remarks Dewey had made in reply to Bourne two weeks earlier than this letter, we find the following position being expressed. Isolation of the higher, 'intellectual' centres from neuromuscular activity is abnormal. Yet this condition is widespread, not only among civilized persons, especially the intellectuals and specialized persons who are leaders, (and) cultivate their 'brains' as if they were separate from the rest of the body, but also among those afflicted with 'psychic' complexes. Conscious control integrally involves sensory appreciations which have been rendered habitually normal. Alexander's technique is a positive method of rendering sensory appreciations habitually normal and instituting coordination and conscious control. James's theory of the emotions is "that the bodily changes follow directly the perception of the exciting fact, and that our feeling of the same changes as they occur IS the emotion,"11, This shows why, if Alexander's technique is sound, when conscious control in his sense is established, impulses are



necessarily controlled and one's at itude toward life is improved.

Here, very clearly, is half of our point. Dewey seems to think that faulty sensory appreciation is at least widespread. But what of the other half, namely, its scientific guarantee? The appeal to James is impressive, though indirect, and only on the ground of authority. The remainder of the letter implicitly gives us the only answer available to Dewey at this time, the appeal to empirical verification in his own concrete experience, and incidentally reveals the deeper problem which lies beneath, that of the communication so necessary to scientific knowledge.

Before I had lessons myself, although I had talked with him [Alexander], read his earlier book, and members of my family had had many lessons, I argued against what seemed to me prejudice on his part against psycho-analysis, on the ground that in principle his method was similar. <u>Only after I had had experimental demon-</u> stration did I see how completely right he was in saying that their method was negative, and left the patient subject to the same thing in some other form ... I have written at some length, although I realize that to you this is all probably a matter of argument and opinion, while with Mr. Alexander and with those who have had the good fortune to get inside his principle or method it is a matter of sheer fact; he is the only person I have ever known, or known of, who knows what he is talking about in the sense that a competent engineer knows when he is talking about his specialty.¹²

The deeper problem referred to, that of the communicability necessary for scientific knowlodge, is indicated by the above excerpt, but is brought out more clearly by the juxtaposition of two texts from Dewey's writings. The first, from his 'Introduction' to the <u>Use of the Self</u>, is: "One who has had experience of the technique <u>knows</u> it through the series of experiences which he himself has. The genuinely scientific character of Mr. Alexander's teaching and discoveries can be safely



rested upon this fact alone."¹³ The second, is from <u>Human Nature and</u> <u>Conduct</u>: "Our intelligence is bound up, so far as its materials are concerned, with the community life of which we are a part. we know what it communicates to us, and according to the habits it forms in us. <u>Science is an affair of civilization, not of individual intellect</u>."¹⁴

Dewey was concerned over a period of years with the problem of ascertaining scientifically the incidence of "sensory perversion", of the time and the conditions under which the undesirable habits responsible for this aberration appear in the individual. By "scientifically" we mean here according to the descriptive technique used, for example, in laboratory work, in which events are subjected to control and their operations rendered communicable and public. The question obviously had vital implications for knowledge, communication, science, and morals -- not to mention life, liberty, and the pursuit of happiness. Dewey's concern was not merely a theoretical one; he tried to arrange to have Alexander and men of technical skill work the problem out. But this endeavor was not intended to establish the <u>fact</u> that bad habits distort sensory perception, nor that they affect judgment. This much Dewey accepted from the beginning. The purpose was to increase communicability and control.

Between 1936 and 1942, approximately, Dewey made several attempts to arrange for the Alexanders to work with men of scientific training. One such effort was in 1936-37, and concerned A. R. Alexander, who was then teaching in New York. Dewey was on the board of the Josiah Macy, Jr. Foundation at the time, of which Mr. Lawrence Frank was then



vice-president. The following excerpt from fr. Frank's account is

relevant to our point:

Dewey asked me to take some lessons so I could know personally about Alexander's ideas, of which I had been aware for some years, having read <u>han's Supreme Inheritance</u> and other books about his ideas and methods. I did take lessons for a year or more and then tried to get Alexander to work with a group studying babies to see now early they began to go astray in the head-neck posture. Dewey was eager to have Alexander's methods and his concepts tested in a university because they would not be accepted by others who did not recognize F. M. as scientifically trained or competent. So Dewey accepted Alexander's principles as scientifically valid but hoped to get them accepted and confirmed by some university group so they would be recognized as valid.

You can see how this came about: Dewey had championed Alexander, but when challenged could give no evidence except his own personal experience and Alexander's say-so. Hence he sought scientific confirmation of what he was convinced of but could not persuade others--especially in medicine and education--to accept or even to try out! ... I tried to arrange for Alexander's brother to work in a new Work medical school with a group studying infant development. ... I did provide fellowships for two women to take lessons with Alexander and to apply his methods to the babies at the medical school.¹⁵

The arrangement with A. K. Alexander, however, did not prove feasible. Hr. Frank, who took an understandably stern view of what his Foundation considered a rebuff on Alexander's part, lays his finger precisely on the basic difference of viewpoint between the Alexanders and men of science, which proved an obstacle to this and similar efforts on Dewey's part:

The major difficulty with F. M. and his brother was their calm assurance that they <u>knew</u>, and did not need any help from scientists, whom they held in contempt because the prevailing scientific approach was analytic; i.e., fracturing wholes into parts and studying the relation of two variables. Alexander was, cuite rightly, convinced that no amount of such analysis could yield understanding of the whole organism and its capacity for integrated functioning.¹⁰



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Yet Dewey, no doubt understanding the Alexanders' attitude toward science and men of science, nevertheless saw clearly the need for connecting their technique with the already established knowledge of physiology and psychology. Accordingly, he continued to look for opportunities to effect a <u>rapprochement</u> between the dissident parties, particularly after a connection seemed to have been established between Alexander's discovery and the work of Magnus and Sherrington. This, however, belongs to our second point about the "primary control" itself. It suffices for establishing Dewey's continued interest in further scientific exploration of the Alexander technique, as well as the reason we have suggested for this interest, to quote two statements he made in 1947:

I have at various times given a good deal of thought to the question of getting adequate attention to the method of the Alexanders--more earlier than lately--and have always come to the same impasses. ... To sum up, I never got anywhere with this problem.¹⁷

As I think I told you, I have always been baffled and held back by my sense of inability to convey the method to anyone who had not been through a personal experience of it. I think you have come as near to securing communication as is likely to occur.¹⁸

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while the two principles before us cannot be separated either in practice or in any scientific investigation of Alexander's method, it was historically the one we have mentioned second--the head-neck-torso relationship, the primary control--that had to wait for its liaison with recognized science. Actually it is the most basic



of all presuppositions in Alexander's system, and everything else that he says depends upon its existence as a physiological fact. Yet until the middle 1920's, orthodox physiology had nothing to say in English which would suggest that the mechanism which was responsible for the integration of <u>all</u> the functions of the human body (not to say mind) was to be sought in the region of the nead and neck. However convinced Dewey may have been of this proposition through his personal experience, he was careful not to commit himself to it in physiological terms until established physiology had had its say. It is true that in his 'Introduction' to <u>Constructive</u> Conscious Control he says that

Mr. Alexander has demonstrated a new scientific principle with respect to control of human behaviour, as important as any principle which has ever been discovered in the domain of external nature, ... [by] exactly the same method of experimentation and of production of new sensory observations, as tests and means of developing thought, that have been the source of all progress in the physical sciences. ... It is a discovery which makes whole all scientific discoveries, and renders them available, not for our undoing, but for human use in promoting our constructive growth and happiness. ... The most striking feature of Ar. Alexander's teaching is the sincerity and reserve with which he has never carried his formulation beyond the point of demonstrated fact.

But Dewey does not say that this principle is physiologically what Alexander asserts it to be. Yet in 1932, in the 'Introduction' to The <u>Use of the Self</u>, he speaks of Alexander's "discovery of the principle of central and conscicus control," and presently adds:

Magnus proved by means of what may be called <u>external</u> evidence the existence of a central control in the organism. But hr. Alexander's technique gave a direct and intimate confirmation in personal experience of the fact of central control long before Magnus carried on his investigations.

New prospects for scientific communication had appeared in the interval between these two introductions.

The complicated series of events which led to the connecting of Alexander's principle of the primary control with the <u>Lentralapparat</u> of Rudolph Magnus cannot be recounted here, but some mention must be made of it because of its indirect effect on Dewey. For Dewey happened on the scene in England, where he spent six months in 1929, having one lesson a week with Alexander, at a time when the latter's medical associates were at pains to connect the laboratory results of Magnus, and their authoritative support by Sir Charles Sherrington, with Alexander's discovery of the primary control. The authority of Sherrington was especially weighty with Dewey, who knew his monumental <u>Integrative Action of the hervous System</u> (1906), and used to quote it in his classes.²¹

Magnus's studies on postural mechanisms were undertaken at the suggestion of Sherrington while studying with the latter at Liverpool in 1908. He pursued his researches at Utrecht, publishing his results in German periodicals from 1912 to 1920, and summing them up in his <u>Körperstellung</u> in 1924.²² The conclusion of his first article (1912) is worth quoting:

Die ... Frage, ob durch die Stellung des Kopfes ein Linfluss auf die Stellung und den Tonus der Gliedmassen ausgeübt wird, konnte die geschilderten Versuche in Bejahendem Sinne beantwortet werden.²³

His subjects were however not the same as those of Alexander, for he

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adds:

Bei dezerebrierten Hunden und Katzen lässt sich der Tonus der Extremitäten uskeln durch Veränderung der Kopfstellung in gesetzmässiger weise beeinflussen.²⁴

His later work was largely with rabbits; even in his second Cameron Lecture (1926) he declares that "the study of righting reflexes in man is still in its infance."²⁵

In 1925 Magnus came to England to give the Croonian Lecture, 'Animal Posture,'²⁶ and in the following year gave the Cameron Lectures at Edinburgh, 'The Physiology of Posture.'²⁷ There is nothing to indicate that Magnus had heard of Alexander at this time.

Meanwhile, since at least 1923, Dr. Peter Macdonald, the close associate of Alexander, had been calling the attention of the British redical Association to Alexander's work.²⁸ In 1926 he said in an address to its Yorkshire Branch, of which he was then president:

Those of you who know the work of Professor Magnus of Utrecht, and who have read the most important lecture he delivered at Edinburgh on May 19th and 20th on the physiology of posture will see how the conclusion of Alexander as to the importance of the relation between head and neck, neck and trunk, is borne out by laboratory experiments. In fact, Alexander has in his work and in the technique he has devised for re-educating his pupils anticipated some of the results which Magnus and others have arrived at through these laboratory experiments.²⁹

The resemblance between this last sentence and the one quoted from Dewey's Introduction to the <u>use of the Self</u> above seems more than accidental. Add to this the fact that another friend of Alexander's, Dr. McLeod Yearsley, had given the impression that Sherrington himself had connected Alexander's work with that of Magnus in a presidential

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address to the Royal Society,³⁰ and all is prepared for the vivid impression which Dewey seems to have received.

In 1942 Dewey's hopes for having the technique investigated scientifically were revived. Dr. Frank Pierce Jones, then on the staff of Brown University, wrote the article on Alexander and Dewey which we have already noted, ³¹ and received Dewey's approval. The latter wrote to Alexander:

During the past year I've met two men of obviously superior educational standing who are devoted to your work. I think one of them, from Brown University, I believe, is studying with A. R. in hopes of teaching.³²

The man from Brown was Dr. Jones. The other was Dr. Richard M. Gummere, Jr., now of Bard College.

Dr. Jones completed his training course with the Alexanders, and in April 1947, wrote to Dewey asking him about the advisability of attempting to devise a technique by which the changes in habit, functioning, and structure accompanying the establishment of the primary control could be measured, and correlations among them established.

As I understand it, Alexander, in the primary control, discovered a natural force whose operation had previously been either overlooked or misunderstood. If that is so, then the laws that govern it should be subject to investigation like those of any other natural forces.³³

In the following year, when Dr. Jones had interested a colleague, Dr. Harold Schlosberg, also of Brown, Dewey had some concrete suggestions to make on procedure, despite a disclaimer:



I'm glad to hear about the psychologist; I know so little about the techniques of psychology at present that I can't make any concrete suggestion. The detection of tensions, and as far as possible some measurement of their degree, in addition to locating them, seem to be basic needs, but the techniques needed seem more physiological than psychological. Of course the Alexander point that when people are told to relax they do so at one locus and tense themselves at another place, might be tested in "normal" subjects.

Having patients and random subjects report of their "feelings" seems a good idea, but it seems to need, to be scientific, some way of objective testing in the case of patients who have made good progress, though their plain reports would doubtless help from the standpoint of teaching.³⁴

By the latter part of the following year Dr. Jones had completed the first of a series of electromyographic studies relating to the effects of the primary control.³⁵ This was hailed by Dewey as

the most important event scientifically that has happened since the anatomical location of the coordination centre at the base of the brain--and potentially more important than that, I believe.... You have every good reason to be pleased to the point of excitement. You've done what Alexander should have tried to do years ago but which, in spite of his own theory of the psychologicalmoral consequences of coordination, he was never able to undertake.³⁶

Dewey's interest in the studies of Dr. Jones continued to the end of his life. Similar studies, with which Dewey was almost certainly in some measure acquainted, were carried on in England by Dr. Wilfred Barlow, at one time laboratory assistant to Sherrington, and later assistant director of the Alexander Foundation where Alexander taught.³⁷ It was Dr. Barlow who called Sherrington's attention to the precise nature of Alexander's work, to which Sherrington later paid some guarded tribute in his study on Jean Fernel.³⁸ Finally.



there seems to be more than accidental connection between Dewey's association with Alexander and the latter's visit to the biologist George Coghill, who wrote the glowing 'Appreciation' for <u>The Universal</u> <u>Constant</u>, lending the authority of his own significant work to that of Alexander.³⁹ This incident occurred while bot Coghill and Alexander were having transactions with the Macy Foundation, and while Dewey was still a member of its Board.

The above scientific investigations bear on the validity of what Alexander called (after he learned of the work of Magnus) "the primary control of use." The earlier question about the impairment of sensation, especiallykinaesthesia, in modern civilized man recedes some what, though what has been said of both questions shows how closely they are connected. Dewey's sustained interest in both, and also in Alexander, are historical facts beyond question. In itself, this interest is not surprising. But when we co bine it with Dewey's vigorous defense in 1923 of Alexander's principles and practice as already established scientifically in the fullest sense, and with the fact that Alexander's name disappears from Dewey's own books after the two footnotes in Experience and Nature, though his doctrine is clearly 40 visible until at least 1939, we have before us a rather curious situation. To obviate the charge of more inconsistency than it is fair to impute to Dewey, we must look more closely at his declaration of 1923, and its sequel in 1932.

There is an episode in the background of the 'Introduction' to <u>Cónstructive Conscious Control</u>. The book was published in October, 1923. Alexander returned to the United States on January 5, of that year, aboard the S.S."Majestic," to teach and to prepare the publication of his book, on the introduction to which Dewey was then at work. On the same ship was Emile Coué, the French practitioner of autosuggestion, currently enjoying fame. The latter's coming was widely heralded even before his arrival, and the daily press gave him prominent notice until his departure for France on February 11, 1923. In these accounts there is a rather striking similarity between the results Coué was reported to be getting and those we have come to associate with Alexander.⁴¹ During all this time, Alexander received no publicity at all, with one significant exception.

On January 24, 1923, an article by Dewey appeared in the <u>New Republic</u> bearing the title, 'A Sick World.'⁴² Since Dewey must have been aware that this article was addressed to a larger and more immediate audience than Alexander's forthcoming book would be likely to have while Coudism was still in the public consciousness, his remarks seem worth quoting at length. They support our point about Dewey's acceptance of the method of Alexander and its scientific value, as well as the need for it if civilization is to survive.

The world has always been a sick one, Dewey writes, though never quite so generally so as now. Aside from sport, amusement and

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recreation it is diseases that men are most aware of. Formerly men sought refuge in religion. but today a remedy must have the mien and technique of science. "In short, we have such phenomena as Coudism, an appeal and a method as old as the cave-man, but dressed up in the latest fashions of the day" (p. 217). What needs to be examined, however, is not what gures are used, but the idea of cure itself. "A cured body or mind is in no sense the same as a healthy, vitally growing mind or body. ... Cure is a negative idea; health is a positive one." One of the proofs of how sick the world is is its unwillingness to deal with the causes of its sickness; its preoccupation with symptoms and effects. "A cure may reduce, suppress, or transfer an effect; it does not touch the cause. Or if it does, it is something more than a cure. It is re-education; it is restoration of an organism which manifests symptoms of health because it is rightly constructed." Suggestion, for example, whether external or ælf-induced, removes symptoms and consciousness of disease, but does not make over the conditions in the body which have caused the trouble. A society or an individual which is living positively and constructively will be growing, and getting "better and better" every day. "Such a life would be simple and spontaneous joy, vigor and achievement. Being better signifies something really different to having less of a trouble" (p. 217).

It is a mistake to depend on cures, however effective they seem.

Dependence on cures retards, hampers, and confuses. Partial and superficial science, physiological or psychological, carried into



immediate execution, is the greatest enemy of genuine and effective science. It substitutes error for ignorance, false conceit for the possibility of learning. Suggestions to the subconscious have the advantage of neither the animal nor the human method of control. They are a hopeless mixture (p. 218).

All this publicity for Coué, Dewey plainly suggests, is part of the self-hypnosis of the public at large.

There is literally no difference between the methods by which Coucism has been exploited and the methods of propaganda used in the war. Both involve a surrender of conscious and direction of life to the effects of reiteration and appeal to the senses and emotions, an appeal which obscures and corrupts the most precious thing in man--his intelligence.... When one compares the benefits of the relief that some sufferers will obtain at Coucis hands and voice with the harm done by increased dependence upon blind clamor and undiscriminating rumor, by habits of increased unintelligent response to stimuli that owe their force simply to their sensory and emotional accumulation, when one thinks of the abandonment of judgment, the balance on the side of benefits is not impressive (p. 218).

The cat has been out of the bag for some time now, but there are those who do not know its name. Dewey continues:

By chance it happened that the same boat which brought Coué brought another person who teaches and practices organic education and re-education, conscious control, the positive rectification of our sensory appreciations and the judgments and acts that depend upon a correct organic consciousness. There is no doubt about the existence and operation of the subconscious. But the quality, nature and operation of the subconscious depend upon definite conditions. Its workings can be helpful rather than detrimental only when it is its lf right. Making it right depends upon its bodily conditions being right--a state which cannot be achieved without a conscious control of them obtained only by positive labor, physiological, intellectual and moral.

The coming of Mr. Matthias Alexander went unheralded. The contrast between the reception of the two men affords a fair measure for our preference of a seemingly cheap and easy way of dealing with symptoms, our wish to be cured rather than to be well. we are now told, every day, following in. ells, that the race is on betwien ca astrophe and education. Half-science, publicity which is propaganda, reliance upon a sub-consciousness



which is already corrupted, work against the adoption of the method of education, against, indeed, any serious search for its conditions and methods. And if the antithesis between education and catastrophe is just, this means that they are working on the side of catastrophe (p. 218).

It may be safely presumed that on this occasion Dewey had no need to inquire of Alexander if he had made his points satisfactorily. But he has also made some of our own. He has implied that Alexander's technique is fully scientific, according to his own views; that it rectifies the sensory appreciations which are necessary to correct organic consciousness and the acts and judgments that depend on it; that it represents at least the kind of re-education which is needed to save civilization from catastrophe. He has also acknowledged his agreement with Alexander's thesis that the workings of the subconscious must be rectified by supplying it with the correct conditions and by bringing it under conscious control through a positive lacor which is physiological, psychological and moral. The tone of even the part which has been quoted from the article is sufficient index of Dewey's interest in Alexander's doctrine at this time.

In the 'Introduction' to <u>Constructive Conscious Control</u>, published later in the same year,⁴³ Dewey expresses his own position on these and related matters with such vigor that one is at pains to know why this essay has been neglected. Mr. Alexander's principle and procedure, he begins, are crucially needed at present. Although his teaching is not esoteric and expressed in simple, non-technical English, "it is difficult for anyone to grasp its full force without having



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actual demonstration of the principle in operation" (p. xxi). This very fact, indeed, indicates how badly it is needed:

The principle is badly needed, because in all matters the individual self and the conduct of its life, there is a defective and lowered sensory appreciation and judgment, both of ourselves and of our acts, which accompanies our wrongly-adjusted physical mechanisms (p. xxi).

Precisely because we bring this perverted consciousness with us to our attempt to read and understand Alexander's writings, we find it hard to realize the existence, causes and effects of this perversion.

We have become so used to it that we take it for granted. It forms, as he has so clearly shown, our standard of rightness. It influences our every observation, interpretation and judgment. It is the one factor which enters into our every act and thought (p. xxi, italics added).

For one who had been so long occupied with problems of epistemology, and who was to say only three years before his death: "My theory of inquiry ... is, wholly and exclusively, a theory of knowledge,"⁴⁴ this is a considerable set of statements.

What is true of the universal effects of perverted sensibility is true also of re-educated sensibility. A practical obstacle to ready understanding of what Alexander is trying to do is that in the nature of the case people approach him for the effects of his method rather than for the method itself. But it is only when the pupil gives up prizing his method merely on account of its specific benefits--"even though one recognizes that these benefits include a changed emotional condition and a different outlook on life"--that he can see the point. "Only when the pupil reaches the point of giving his full attention to the <u>method</u>



of Mr. Alexander instead of its results, does he realize the constant influence of his sensory appreciation" (p. xxii). Anyone who has not reached this stage is likely to go off after any one of the panacaeas that are so freely available on all sides. But on the other hand, these very specific beneficial results of the method can, when intelligently examined, show the difference between Alexander's method and all other, non-scientific "cures." One merely applies scientific criteria to his, or any other system.

The soundness of any plan must be proved by referring both to concrete consequences and to general principles, taken in connection with each other, and not in isolation.

Further, whilst any theory of principle must ultimately be judged by its consequences in operation, whilst it must be verified experimentally by observation of how it works, yet in order to justify a claim to be scientific, it must provide a method for making evident and observable what the consequences are; and this method must be such as to afford a guarantee that the observed consequences actually flow from the principle (p. xxiv).

For Alexander's method this is not a consummation devoutly to be wished; it is accomplished fact, for Dewey continues immediately:

And I unhesitatingly assert that, when judged by this standard, that is, of a principle at work in effecting definite and verifiable consequences, Mr. Alexander's teaching is scientific in the strictest sense of the word. It meets both of these requirements. In other words, the plan of Mr. Alexander satisfies the most exacting demands of the scientific method (p. xxiv).

It will be recalled that Randolph Bourne had five years earlier raised the question of whether or not Mr. Alexander's procedure was scientifically demonstrated. The earlier book, it is true, has few resemblances to works easily recognizable as scientific in the usual sense.

since it avoids developing any theory for its own sake. This fact "has occasionally been a disappointment to 'intellectual' persons who have subconsciously got into the habit of depending upon a certain paraphernalia of technical terminology" (p. xxvi). Nevertheless, the principle or theory of Alexander and the observed consequences of its operation have developed simultaneously and in an interconnected way, and both have evolved out of an experimental method of procedure. The theory has been carried neither beyond the needs of the procedure employed, nor beyond experimentally verified results (p. xxvi). These features alone, Dewey insists, make Alexander's work scientific, without the showy panophy of technical paraphernalia.

To assure us that he is not engaged in polite and grateful eulogy, Dewey inserts a careful essay on scientific method as it is exemplified in Alexander's case. There seems no safe way for us but to follow his exposition step by step. We shall find instruction in counting the steps. In solving his (and later his pupils') problem of dysfunction, Alexander proceeded, and in his teaching does proceed as follows. in Dewey's account:

Employing a remarkably sensitive power of observation, he has noted the actual changes brought about in individuals in response to the means which he has employed, and has followed up these changes in their connexions with the individual's habitual reflexes, noting the reactions due to the calling into play of established bad habits, with even greater care than the more obvious beneficial consequences obtained.

Every such undesirable response has been treated as setting a problem, namely, that of discovering some method by which the evocation of these instinctive reactions, and the feelings associated with them, can be inhibited, and, in their stead, such acts called into play as will give a basis for correct sensory appreciations.



Every step in the process has been analyzed and formulated, and every changing condition and consequence, positive or negative, favorable or unfavorable, which is employed as a means for developing the experimental procedure, has been still further developed (p. xxiv).

The problem in his own case and in that of his successful pupils was thereby solved, and the validity of the technique demonstrated. But the technique is not a magic formula; it is capable of indefinite development:

The use of this developed method has, of course, continuously afforded new material for observation and thorough analysis. To this process of simultaneous development of principles and consequences, used as a means for testing each other, there is literally no end (pp. xxiv - xxv).

As long as Mr. Alexander uses the method, Dewey urges, it will tend toward, but never arrive at perfection, any more "than does any genuine experimental scientific procedure, with its theory and supporting facts" (p. xxv).

What Dewey is saying here is that Alexander's procedure has followed the famous "five steps" by which any problem is solved scientifically. These steps are: (i) a felt difficulty; (ii) its location and definition; (iii) suggestion of possible solution; (iv) development by reasoning of the bearings of the suggestion; (v) further observation and experiment leading to its acceptance or rejection; that is, the conclusion of belief or disbelief. These were first set out in <u>How We Think</u> (1910,⁴⁵ but Dewey states them more succinctly for our purpose in <u>The Quest for Certainty</u> (1929):

Previous discussion has been a statement of the chief factors that operate in bringing about this reconstruction--of resolving a problematic situation: Acts of analytic reduction of the gross



total situation to determinate data--qualities that locate the nature of the problem; formation of ideas or hypotheses to direct further operations that reveal new material; deductions and calculations that organize the new and old subject-matter together; operations that finally determine the existence of a new integrated situation with added meaning, and in so doing test or prove the ideas that have been employed.⁴⁰

The apparent crossing-over of some of the steps as they are found in Dewey's exposition of Alexander's method can be explained by the fact that he is treating simultaneously the method itself and the technique of teaching the method. Since in any case the five stages are discernible, Dewey declares the procedure to be scientific.

There follows, by unfavorable comparison, a criticism of panacaeas which reminds us of what was earlier said of Coué, and of "cures" of the sort referred to by the medical profession as "buckshot" remedies. One aims a general charge at the ailment and hopes that the good consequences will outweigh the bad ones. Then:

But the essence of scientific method does not consist in taking consequences in gross; it consists precisely in the means by which consequences are followed up in detail. It consists in the processes by which the causes that are used to explain the consequences, or effects, can be concretely followed up to show that they actually produce these consequences and no others (p. xcv).

Remarking that Alexander "might have had his day of vogue as one among the miracle-mongers," had he not been so devoted to "working out a demonstration of a principle--a demonstration in the scientific sense of the word," Dewey writes the unequivocal endoreement we have already seen:

Mr. Alexander has demonstrated a new scientific principle with respect to the control of human behaviour, as important as any principle which has ever been discovered in the domain of external



nature. Not only this, but his discovery is necessary to complete the discoveries that have been made about non-human nature, if these discoveries and inventions are not to end by making us their servants and nelpless tools (p. xxvi).

The import of this last sentence is that if observation of even inanimate nature is to be of value, the observer himself must first be in good condition. here, indeed, is a serious consideration.

The scientist himself is now examined in the light of the scientific method.

A scientific man is quite aware that no matter how extensive and thorough is his theoretical reasoning, and how definitely it points to a particular conclusion of fact, he is not entitled to assert the conclusion as a fact until he has actually observed the fact, until his senses have been brought into play (p. xxvi).

In the past the scientist has simply taken this for granted:

With respect to distinctively human conduct, no one, before Mr. Alexander, has even considered just what kind of sensory observation is needed in order to test and work out theoretical principles. Much less have thinkers in this field ever evolved a technique for bringing the requisite sensory material under definite and usable control (p. xxvi).

The criticism in the last sentence is aimed chiefly at psychoanalysis, some types of psychology, and all systems of physical culture. The former two, insofar as they appeal to suggestion, the unconscious, and to the subconscious, by description avoid this scientific problem. The various systems of physical exercise have similarly ignored the methods by which their faults are to be observed and analyzed.

we are thus returned to the point with which the essay opened: the need for Alexander's principle to be understood in correct perspective.



Whenever the need has been dimly felt for some concrete check and realization of the meaning of our thoughts and judgments about ourselves and our conduct, we have fallen back, as Mr. Alexander has so clearly pointed out in his writings, on our pre-existing sense of what is "right." But this signifies in the concrete only what we feel to be <u>familiar</u>. And in so far as we have had habits meeding re-education, that which is familiar in our sense of ourselves and of our acts can only be a reflection of the bad psycho-physical habits that are operating within us (pp. xxvi - xxvii).

That bad psycho-physical habits are, to say the least, rather common has already been said. Now we are invited to consider their consequen-

ces in science:

This, of course, is precisely as if a scientific man, who, by a process of reasoning has been led to a belief in what we call the Copernican theory, were then to try to test this reasoning by appealing to precisely those observations, without any addition or alteration, which had led men to the Ptolemaic theory. Scientific advance manifestly depends upon the discovery of conditions for making new observations, and upon the re-making of old observations under different conditions; in other words, upon methods of discovering why, as in the scientific man, we have had and relied upon observations that have led into error (p. xxvi).

As things stand now, we appear to be left with a body of scientific knowledge that is open to question, and without the means of either discovering this or rectifying it unless some basic reform is applied to our powers of observation. Moreover, the method of this reform or re-education must itself be scientifically worked out. Since the conditions under which the scientific method is employed by scientists are at present conditions which defeat its successful operation, we seem indeed to be involved in the vicious circle which Dewey mentioned at the outset of his remarks. Alexander seems to have found the only scientific way out of it. .

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After studying over a period of years Mr. Alexander's method in actual operation, I would stake myself upon the fact that he has applied to our ideas and beliefs about ourselves and about our acts exactly the same method of experimentation and of production of new sensory observations, as tests and means of developing thought, that have been the source of all progress in the physical sciences; and if, in any other plan, any such use has been made of the sensory appreciation of our attitudes and acts, if in it there has been developed a technique for creating new sensory observations of ourselves, and if complete reliance has been placed upon these findings, I have never heard of it (p. xxvii).

Appeals have been made to "consciousness" (which merely registers bad conditions., The opposite extreme, viz., dependence on bodily exercises, rectifications of posture, and so on, has also been canvassed.

But dr. Alexander has found a method for detecting precisely the correlations between these two members, physical-mental, of the same whole, and for creating a new sensory consciousness of new attitudes and habits. It is a discovery which makes whole all scientific discoveries and renders them available, not for our undoing, but for human use in promoting our constructive growth and happiness (p. xxvii, italics added).

But this is not yet all. The question is not merely an academic or even a clinical one. $T_{h}e$ difficulty begins at home, so to speak, but goes forth so soon to cause its social mischief that we miss its origin.

No one would deny that we ourselves enter as an agency into whatever is attempted and done by us. That is a truism. But the hardest thing to attend to ... is, precisely, ourselves, our own habits and ways of doing things as agencies in conditioning what is tried or done by us (pp. xxvii - xxviii).

We have mastered to a wonderful extent the use of things as tools, through modern science, for effecting results outside ourselves. But the over-all result "is all but a universal state of confusion, discontent and strif)."



The one factor which is the primary tool in the use of all these other tools, namely ourselves, in other words, our own psychophysical disposition, as the basic condition of our employment of all agencies and energies, has not even been studied as the central instrumentality (p. xxviii).

Is it not highly probable, he asks, that this failure explains why, in mastering physical forces, we have ourselves been so largely mastered by them, to the point where we find ourselves "incompetent to direct the history and destiny of man?" (p. xxviii).

Awareness of the failure of all remedies and forces external to the individual man has never been so acute as it is today. But it is one thing to urge the return to the individual man as the ultimate agency in whatever mankind and society collectively can accomplish; to point to his re-conditioning as the ultimate condition of whatever humanity in mass can achieve. "It is another thing to discover the concrete procedure by which this greatest of all tasks can be executed. And this indispensable thing is exactly what Mr. Alexander has accomplished" (p. xxviii). The discovery itself could not have been made, nor its method perfected, except by dealing with adults who were badly coordinated. But the method is primarily one of prevention by re-education, rather than one of remedy. Hence its proper field of application is with the growing generation,

in order that they may come to possess as early as possible in life a correct standard of sensory appreciation and self-judgment. When once a reasonably adequate part of a new generation has been properly coordinated, we shall have assurance for the first time that men and women in the future will be able to stand on their own feet, equipped with satisfactory psycho-physical equilibrium, to meet with readiness, confidence and happiness instead of with fear, confusion and discontent, the buffetings and contingencies of their surroundings (p. xxviii).



The danger in summarizing this series of sweeping assertions is obvious. Fortunately, Dewey has spared us most of the risk, and has even supplied the adjective "sweeping." Nine years later he wrote the 'Introduction' to <u>The Use of the Self</u> (1932).⁴⁷ In his first sentence he refers to the 1923 'Introduction.⁺ in which

I stated that his procedure and conclusions meet all the requirements of the strictest scientific method, and that he has applied the method in a field in which it had never been applied before-that of our judgments and beliefs concerning ourselves and our activities (p. xvii).

He then restates the following points: (1) Alexander's procedure and conclusions have rounded out the results of physical science and rendered them useful for human benefit. (2) Scientific technique. which has for its consequences control of energies to which it refers, has given us an astounding new control of physical energies, but has left us faced with a serious and perhaps tragic situation. Doubt is everywhere increasing as to whether this physical mastery of physical energies is going to further or wreck human happiness and welfare; (3) The only way to give a hopeful and constructive answer to this dilemma is by developing a technique which will "enable individuals really to secure the right use of themselves." with the result that "the factor upon which depends the final use of all other forms of energy will be brought under control." (4)"Mr. Alexander has evolved this technique". He adds, "In repeating these statements I am fully aware of their sweeping nature. ... They might well raise a question as to the complete intellectual responsibility of their author" (p. xvii).

In reply to this anticipated criticism, Dewey says:

I appeal to the account which Mr. Alexander has given of the origin of his <u>discovery</u> of the principle of <u>central</u> and <u>conscious</u> <u>control</u> (p. xvii, italics added).

That the term "central ... control" refers to the later researches of Magnus and his positing of the <u>Zentralapparat</u> is presently made clear, but meanwhile Dewey's notion of the scientific method is made more precise.

Those who do not identify science with a parade of technical vocabulary will find in this account [i.e., Alexander's]the essentials of scientific method in any field of inquiry. They will find a record of long-continued ... observations in which every inference is extended, tested, corrected by further more searching experiments; they will find a series of such observations in which the mind is carried from observation of comparatively coarse, gross, superficial connections of causes and effect to those causal conditions which are fundamental and central in the use which we make of ourselves (p. xvii - xviii).

Once more, the "five steps" constitute the essentials of the

scientific method.

Expressing utmost admiration and respect for the thoroughness with which Alexander's observations and experiments were carried out, Dewey points to yet another distinctively scientific characteristic

of Alexander's work:

In consequence [sc. of his method], Mr. Alexander created what may be truly called a physiology of the living organism. His observations and experiments have to do with the actual functioning of the body, of the organism in operation ... under the ordinary conditions of living.... The contrast between sustained and accurate observations of the living and the usual activities of man and those made upon dead things under unusual and artificial conditions marks the difference between true and pseudoscience (p. xviii).

It is the general association of "science" with the latter sort of thing that has prevented many from appreciating Alexander's work, he adds.


The most striking feature, the one which an unfriendly critic might term the physiological epistemology of Alexander, now returns for consideration and is illustrated by autobiographical examples. This provides occasion for Dewey to show both the connection and the contrast between Alexander's method with what orthodox physiology has already established, with special reference to Magnus's investigations.

As might be anticipated, the conclusions of Mr. Alexander's experimental inquiries are in harmony with what physiologists know about the muscular and nervous structure. But they give a new significance to that knowledge; indeed, they make evident what knowledge itself really is (p. xviii, italics added).

The anatomist may "know" the exact function of each muscle, and what muscles come into play as any specified act is executed. But if he cannot "coordinate all the muscle structures involved in, say, sitting down or in rising from a sitting position in a way which achieves the optimum and efficient performance of that act; if, in other words, he misuses himself in what he does, how can he be said to <u>know</u> in the full and vital sense of that word?" (pp. xviii - xix). The force of this last statement is lost if one forgets that for Dewey, theoretical and practical knowledge are continuous; <u>all</u> knowledge is a vital, organic function. It is in and of operations, not in and of a transcendent intellect where it can be "true" independently of what the body and the environment are doing.

From this point of view, the elaborate technical studies of Magnus in his laboratory are not really knowledge, but merely provide



support for what Alexander has demonstrated more completely.

Magnus proved by means of what may be called <u>external</u> evidence the existence of a central control in the organism. But Mr. Alexander's technique gave a direct and intimate confirmation in personal experience of the fact of central control long before Magnus carried on his investigations. A_{nd} one who has had experience of the technique <u>knows</u> it through the series of experiences which he himself has (p. xix).

It is here that Dewey asserts that this fact alone supports the genuinely scientific character of Alexander's discoveries and technique. He even puts Magnus's name and work before our eyes as an antithesis.

A scientific discovery must not only harmonize with prior results; it must also be able to project and direct operations which lead to new observations, suggesting in turn further experimentally controlled operations, and so on indefinitely. These characteristics, the latter especially, as demonstrated in Dewey's own personal experience, first convinced him of the scientific quality of Alexander's work.

Each lesson was a laboratory experimental demonstration. Statements made in advance of consequences to follow and the means by which they would be reached were met with implicit skepticism—a fact which is practically inevitable, since ... one uses the very conditions that need re-education as one's standard of judgment. Each lesson carries the process somewhat further and confirmed in the most intimate and convincing fashion the claims that are made (p. xix).

But as one goes on, new areas are seen and then realized, and one finds himself growing continually, and realizing that this process is endless.

In one way, Dewey feels that he "had an unusual opportunity for making an intellectual study of the technique and its results." On the practical sid, he was "an inept, awkward, and slow pupil." Since there were o immediate and startling changes to appeal to the

emotion of gratitude and mislead him intellectually, he went on with

a clear eye.

I was forced to observe carefully at every step of the process, and to interest myself in the theory of the operations. I did this partly from my previous interest in psychology and philosophy, and partly as a compensation for my practical backwardness. In bringing to bear whatever knowledge I already possessed--or thought I did--and whatever powers of discipline in mental application I had acquired in the pursuit of these studies, I had the most humiliating experience of my life, intellectually speaking. For to find that one is unable to execute directions, including inhibitory ones, in doing such a seemingly simple act as to sit down, when one is using all the mental capacity which one prides himself upon possessing, it is not an experience congenial to one's vanity. But it may be conducive to analytic study of causal conditions, obstructive and positive (pp. xix - xx).

There follows a list of what Dewey verified in direct experience concerning Alexander's method.⁴⁸ His conclusion is that things he had "known" in philosophy and psychology, theoretically, now became known in the sense described above. They became "vital experiences which gave a new meaning to knowledge of them" (p. xx).

Returning to the importance of Alexander's work and its urgent need, Dewey observes that control of physical energies without control of our use of ourselves, our use of other things is blind and may have disastrous consequences.

Moreover, if our habitual judgments of ourselves are warped because they are based on vitiated sense material--as they must be if our habits of managing ourselves are already wrong-then the more complex the social conditions under which we live, the more disastrous must be the outcome. Every additional complication of outward instrumentalities is likely to be a step nearer destruction; a fact which the present state of the world tragically exemplifies (p. xx, italics added).

The remedy is to be found in the direction Alexander has pointed.



Noting that Alexander's discovery extends and corrects the work of Pavlov in connection with conditioned reflexes, Dewey asserts that the concept of the latter was an arbitrarily established connection which renders the individual a passive puppet to be played upon by external manipulations. Alexander's work shows, on the contrary, that the conditioned reflex goes back to central conditions within the organism itself. He has proved "that there are certain basic, central organic habits which condition <u>every</u> act we perform, every use we make of ourselves" (p. xxi). This Dewey regards as a considerable achievement.

The discovery of a central control which conditions all other reactions brings the conditioning factor under conscious direction and enables the individual through his own co-ordinated activities to take possession of his own potentialities. It converts the fact of conditioned reflexes from a principle of external enslave ent into a means of vital freedom (p. xxi).

The difference this makes to education is substantial. For, although education is the only sure method mankind possesses for directing its own course, we have heretofore been involved in a vicious circle. We have been without knowledge of what constitutes a truly normal and healthy psycho-physical life, so that our professed education is likely to be mis-education--as every serious student of the formation of disposition and character knows. This need no longer be.

The technique of Mr. Alexander gives to the educator a standard of psycho-physical health--in which what we call morality is included. It supplies also the "means whereby" this standard may be progressively and endlessly achieved, becoming a conscious possession of the one educated. It provides therefore the

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conditions for the central direction of all special educational processes. It bears the same relation to education that education itself bears to all other human activities (xxi, italics added).

. Quite obviously Dewey sees this re-education of the "use of the self" as the necessary prerequisite to any other work in education, a position which in fact flows logically from the principle itself. To leave us in no doubt, he concludes in an almost missionary tone:

I cannot therefore state too strongly the hopes that are aroused in me by the information ... that Mr. Alexander has, with his coadjutors, opened a training class, nor my sense of the importance that this work secures adequate support. It contains in my judgment the promise and potentiality of the direction that is needed in all education (p. xxi).

This is language that can hardly be written off as that of a kind patron lending his approval and influence to the support of just another praiseworthy endeavor. Dewey has a practical program in mind, and says, moreover, that it is the only sure way of averting general disaster.

One might urge, of course, that the bulk of the evidence so far adduced bears dates that coincide with the publication of Alexander's three books, and that the promotional advantages of such timely endorsement is a factor not to be ignored in explaining both the existence and the content of the documents to which we have appealed. To this one can retort either that it imputes serious intellectual dishonesty to Dewey, or that it fails to notice that his effort to promote Alexander's theory and practice proves rather than disproves his deep conviction that Alexander was correct.



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It has now been established that at least between the years 1917 and 1948 Dewey had an intense and sustained interest in the theory as well as the practice of Alexander's discovery. This interest was not primarily due to the personal benefits which he derived from the "lessons." nor was it due solely to his desire to see the technique recognized and spread even to the extent of becoming the foundation of all future education. Both of these motives were uncuestionably operative. But we have further asserted that there were implications and applications which Dewey incorporated into the heart of his philosophical thinking as well. It remains now to demonstrate this. To develop and interpret these instances of internal evidence would be the work of a separate study; indeed of more than one. Yet the writer is convinced that the full import of such a work as Experience and Nature, for example, cannot be grasped unless its reader is acquainted with its Alexandrian background. Once more -- as in the case of Human Nature and Conduct -- it is Dewey himself who suggests this. We turn first to some random samples from other works.

In the <u>Theory of Valuation</u> (1939), significantly in the chapter on 'The Continuum of Ends-Means,⁵⁰ Dewey treats in passing of needs and conflicts as "ends" framed with reference to a negative factor. Their function is positive, he says, as is the resolution effected by their performance. But

To attempt to gain an end <u>directly</u> is to put into operation the very conditions that are the source of the experienced trouble,

(d)



thereby strengthening them and at most changing the outward form in which they manifest themselves. Ends framed with a negative <u>reference</u> (i.e., to some trouble or problem) are means which inhibit the operation of conditions producing the obnoxious result; they enable positive conditions to operate as resources and thereby to effect a result which is, in the highest possible sense, positive in content. ... The negative factor operates as a condition of forming the appropriate <u>idea of</u> the end; the idea when acted upon determines a positive outcome.

The doctrine which is being developed here--that of "a temporal continuum of activities in which each successive stage is equally end and means" (p. 49), could be shown to be infused with Alexander's "means whereby" wersus "end-gaining" principle. It is easily visible, for example, in the sequel to the passage just quoted:

The attained end or consequence is always an organization of activities, where organization is a co-ordination of all activities which enter as factors. ... The form of an attained end or consequence is always the same: that of adequate co-ordination. The content or involved matter of each successive result differs from that of its predecessors; for while it is a <u>reinstatement</u> of a unified ongoing action, after a period of interruption through conflict and need, it is also an <u>enactment</u> of a new state of affairs.... Situations in which means are constituents of the very end-objects they have helped to bring into existence ... occur whenever behavior succeeds in intelligent projection of end-in-view that direct activity to resolution of the antecedent trouble. The cases in which ends and means fall apart are the abnormal ones (pp. 48-49).

There are other places in this work⁵² where Alexander's ideas-or those which Dewey developed from them--come so close to the surface that one wonders at first why there is no mention of what we know Dewey considers to be the basic difficulty underlying the problem of value and valuation: the need for sensory re-education if values are to be correctly appraised and agreed upon, not to say carried out generally in practice. A more careful reading of the essay, however, rather plainly



suggests reasons for this, but these do not concern us here.53

Of all of Dewey's published writings, <u>Experience and Nature</u> (1926; 1929)⁵⁴ is the one in which Alexander's principles stand out most clearly and have penetrated most deeply. As in <u>Human Nature and</u> <u>Conduct</u>, Alexander is twice mentioned by name. Once more, the limits of this thesis do not permit the extended exploration which this question so well deserves. Nevertheless even in fulfilling our proposal to show that Alexander's theory and practice influenced Dewey's thought in a vital way, we shall uncover enough of this influence to support the assertion already made, viz. that <u>Experience and Nature</u> cannot be fully grasped without knowledge of what Alexander taught.

It is in Chapter VII, 'Nature, Life and Body-Mind,' and Chapter VIII, 'Existence and Ideas,'⁵⁵ that we find the most obvious applications of Alexander's doctrine, frequently made in his own peculiar terminology. There is an introduction to this material at the close of the preceding chapter, 'owever, which sets the stage in a manner now familiar to us. The three final sentences alone are sufficient indications of what is to come:

... Till we understand operations of the self as the tool of tools, the means in all use of means, specifying its differential activities in their distinctive consequences in varying qualities of what is experienced, science is incomplete and the use made of it is at the mercy of an unknown factor, so that the ultimate and important consequence is in so far a matter of accident. Intentions and effort brine forth the opposite of what was intended and striven for, and the result is confusion and catastrophe. Thus we are brought to a consideration of the psycho-physical mechanism and functioning of individual centres of action (p. 247).

The hand is indeed the hand of Dewey, but the voice is the voice of Alexander.

After considering the history and nature of the classical body-mind problem, Dawey concludes that it is a pseudo-problem. What has happened is that the fact of organization has been misunderstood, and that the organization of some natural events has been hypostatized into an entity. "Organization is a fact, though it is not an original organizing ... special force or entity called life or soul" (pp. 254-55). The term "psycho-physical" describes the connection more appropriately. If we accept the common denotation of "physical" as coextensive with the inanimate, the prefix "psycho-" may be used to denote the fact that

physical activity has acquired additional properties, those of ability to procure a peculiar kind of interactive support of needs from surrounding media. Psycho-physical does not denote an abrogation of the physico-chemical; nor a peculiar mixture of something physical and something psychical (as a centaur is half man and half horse); it denotes the possession of certain qualities and efficacies not displayed by the inanimate (p. 255).

The classical body-mind problem thus disappears. Organization replaces entelechy.

We do not propose to follow the development of this complex metaphysical argument in order to show that the shadow of Alexander reaches even to its deepest level. This could be done, though at some length.⁵⁶ But when habit and body-mind (the latter as the conserved versus the differential factors in the organism) come to the surface, Alexander's presence is more than his shadow.



The matter of pure dialectic, in contrast with its particular

instances or uses, had come up, and Dewey makes the following observ-

ations:

Using meanings is a particular act; into this act enter causative factors, physiological, social, moral. The most perfect structure may be employed for purposes to which it is not apt; wrongly employed for the right purpose, it will buckle or default. Thus in dialectic, reasoning may flag because of fatigue; it may take one meaning for another because of <u>perverse sensory appreciations</u>, <u>due to organic maladjustments</u>; haste, <u>due to absence of inhibition</u>, may lead one to take a meaning to be clear when it is cloudy or ambiguous with respect to the purpose for which it is used (p. 287, italics added).

Somewhat later we are returned again to the psycho-physical relationship:

Organic and psycho-physical activities with their qualities are conditions which have to come into existence before mind, the presence and operation of meanings, ideas, is possible. They supply mind with its footing and connection in nature; they provide meanings with their existential stuff. But meanings, ideas, are also, when they occur, characters of a new interaction of events; they are characters which in their incorporation with sentiency transform organic action, furnishing it with new properties. Every thought and meaning has its substratum in some organic act of absorption or elimination, of seeking or turning away from, of destroying or caring for, of signalling or responding. It roots in some definite act of biological behavior; our hysical names for mental acts li^k* seeing, grasping, searching, affirming, acquiescing, spurning, comprehending, affection, emotion, are not just "metaphors" (p. 290).

This is amplified shortly, during a discussion of the (behaviorist)

position on thought as conditioned laryngeal activities. In protest.

Dewey says:

... Ideas are qualities of events in all the parts of organic structure which have ever been implicated in actual situations of concern with extra-organic friends and enemies:--presumably in proprio-receptors and organ receptors in all their connected glandular and muscular mechanisms. These qualities give body and stuff to the activity of the linguistic apparatus (p. 292).

The explicit connection between ideas and proprioceptive (kinaesthetic and organic) functions here is significantly Alexandrian.⁵⁷



The chapter concludes with a summary of Dewey's conception of the soul and of the practical consequences of that conception. The soul is not an entelechy "inhabiting the body in an external way" (p. 295), but "denotes the qualities of psycho-physical a tivities as far as these are organized into unity" (p. 293). It is not the nervous system, the brain, or the cortex of the brain, though some physiologists and psychologists have seized upon each of these as the integrating factor of the organism. All such views are particularist, and fail to recognize the interconnections of bodily parts. We need to recover our "sense of the intimate, delicate, and subtle interdependence of all organic structures and processes with one another" (p. 295). The world is now mad in its fragmentary, disconnected preoccupations, visible in medicine, politics, science, industry, and education. We need to <u>know</u>, abstractly, but we must also <u>do</u>. Alexander, Dewey suggests, has the solution.

In terms of a conscious control of inclusive wholes, search for those links which occupy key positions and which effect critical connections is indispensable. But recovery of sanity depends upon seeing and using these specifiable things <u>as</u> links functionally significant in a process. To see the organism <u>in</u> nature, the nervous system in the organism, the brain in the nervous system, the cortex in the brain is the answer to the problems which haunt philosophy (p. 295).

It is immediately after the next two sentences that we are referred to Alexander's first two books, the only ones which had appeared up to

this time.

Until we have a procedure in actual practice which demonstrates this continuity, we shall continue to engage in appealing to some other specific thing, some other broken off affair, to restore connectedness and unity--calling the specific religion or reform or whatever specific is the fishionable cure of the period. Thus we increase the disease in the means used to cure it (pp. 295-96). The two para_raphs which close this chapter abound with obvious allusions to Alexander's work. W_{e} are told that in matters predominantly physical, "all control depends upon conscious perception of relation obtaining between things, otherwise one thing cannot be used to affect the other." Our great success in inventing external machines is due to our taking for granted that "success occurs only upon the conscious plane--that conscious perception of the relations which things sustain to one another." Locomotives, aeroplanes and the like "do not arise from instinct or the subconscious but from deliberately ascertained perception of connections and orders of connection" (p. 296). But now,

After a period in which advance in these respects was complacently treated as proof and measure of progress, we have been forced to adopt pessimistic attitudes, and to wonder if this "progress" is to end in the deterioration of man and the possible destruction of civilization (p. 296).

The expressions "deterioration of man" and "destruction of civilization" are not accidentally coupled, as we are promptly shown:

Clearly we have not carried the plane of conscious control, the direction of action by perception of connections, far enough. We cannot separate organic life and mind from physical nature without also separating nature from life and mind. The separation has reached a voint where intelligent persons are asking whether the end is to be catastrophe, the subjection of man to the industrial and military machines he has created. This situation confers peculiar poignancy upon the fact that just where connections and interdependences are most numerous, intimate and pervasive, in living, psychophysical activity, we most ignore unity and connection, and trust most unreservedly in our deliberate beliefs to the isolated and specific -- which signifies that in action we commit ourselves to the unconscious and subconscious, to blind instinct and impulse and routine. disguised and rationalized by all sorts of honorific titles. Thus we are brought to the topic of consciousness (pp. 296-297. italics added).

With Alexander's title, Constructive Conscious Control, confronting us

at the foot of the page, we are also led to expect further reference to him. In this we are not disappointed.

Turning first to the word "consciousness", Dewey distinguishes two quite different senses of the term. It designates (1) certain qualities in their immediate apparency--what, from the psychological standpoint are usually called "feelings." The sum total of these qualities, which are closures or literally "ends" which are just <u>had</u>, constitute consciousness as an anoetic process. (2) The term also designates actually perceived <u>meanings</u>. To be conscious is to attend to the significance of events, present, past, future.

The first sense is the fundamental one, the existential starting point. Even meanings, as existential, are grounded in immediate qualities; "in sentiencies or 'feelings,' of organic activities and receptivities" (pp. 298-299). Meanings as meanings, however, come into being only through language and social, shared activities. "Thus while its direct mechanism is found in the vocalizing and auditory apparatuses, this mechanism is in alliance with general organic behavior" (p. 299).

There is also a "subconscious" component i.1 human thinking. Apart from meanings, we are continually engaged in an immense number of immediate organic selections and rejections of the most minute and delicate nature. We are not aware of the objective qualities of most of these, nor do we distinguish among them.

Yet they exist as feeling qualities, and have an enormous directive effect on our behavior. If, for example, certain sensory qualities

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of which we are not cognitively aware cease to exist, we cannot stand or control our posture and movements. In a thoroughly normal organism, these "feelings" have an efficiency of operation which it is impossible for thought to match. Even our most highly intellectualized operations depend upon them as a "fringe" by which to guide our inferential move ents. They give us our <u>sense</u> of rightness and wrongness, of what to select and emphasize and follow up, ... among the multitude of inchoate meanings that are presenting themselves (pp. 299-300).

There is continuity with meanings in this process, for "formulated discourse is mainly but a selected statement of what we wish to retain among all these incipient starts, following ups and breakings off" (p. 300). But there is also a reciprocal influence of meanings on these "feelings". "Meanin's acquired in connection with the use of tools and of language exercise a profound influence upon organic feelings" (p. 300), and in taking stock of these influences we must include "the changes effected by all the consequences of attitude and habit due to <u>all</u> the consequences of tools and language--in short, civilization" (p. 300). Now,

Evil communications corrupt (native) good manners of action, and hence <u>pervert feeling</u> and <u>subconsciousness</u>. The deification of the subconscious is legitimate only for those who never indulge in it-animals and thoroughly healthy naive children--if there be any such (p. 300, italics added).

The sequel to this passage is a monument to Alexander's work and his peculiar use of terms:

The subconscious of a civilized adult reflects all the habits he has acquired; that is to say, all the organic modifications he has undergone. And in so far as these involve <u>mal-coordinations</u>, fixations and segregations (as they assuredly come to do in a very short time for those living in complex "artificial" conditions,) <u>sensory appreciation is</u> confused, <u>perverted</u> and falsified. ... It is surest to be wrong in connection with intimate matters of self-regulation in health, morals, social af airs--in matters most closely connected with basic needs and relationships. .here its use is popularly recommended it is most dangerous. To use feelings which are not the expression



of a rectitude of organic action, rectitude that in civilized or artificial conditions is acquired only by taking thought, ... is to act like an animal without having the structural facilities of animal life (pp. 300-301, italics added).

This is by no means all. Deway at once declares: "In a practical sense, here is the heart of the mind-body problem" (p. 301). This is because "activities which develop, a propriate and enjoy meanings bear the same actualizing relation to psycho-physical affairs that the latter bear to physical characters" (p. 301). But this explanation is still in the language and context of Alexander's doctrines. We are, in fact, straightway informed of this in a note to the following unmistakable passage:

The actualization of meanings furnishes psycho-physical qualities with their ulterior significance and worth. But it also confuses and perverts them. The effects of this corruption are themselves embodied through habits in the psycho-physical, forming one-sided degraded and excessive susceptibilities; creating both dissociations and <u>rigid fixations in the sensory register</u>. These habitual effects become in turn spontaneous, natural, "instinctive," they form the platform of development and apprehension of further meanings, affecting every subsequent phase of personal and social life (p. 302, italics added).

The note quietly recommends our consulting Alexander's books, already noted.

One might suppose that the reference to Alexander represents a dismissal of his doctrines so that the discussion may go ahead on lines peculiar to Dewey. The contrary is the case. For as Dewey goes on to prepare a new assault on the parallelistic or separatist theory of mind and consciousness, he curries along Alexander's theory and uses it as a platform upon which to build his catapult. By way of transition he



reminds us once more that there is unreliability below the "conscious plane," though this time he does not employ that term:

Thus while the psycho-physical in man, apart from conscious meaning achieves nothing distinguished, the casual growth and incorporation of meanings cause the native need, adjustment and satisfaction to lose their immediate certainty and efficienc, and become subject to all kinds of aberrations. There then occur systematized withdrawals from intercourse and interaction, from what common sense calls "reality" (p. 302).

The list of illustrations which follows show us that Dewey is much in earnest about the consequent dualisms, for it includes "rigidly stereotyped beliefs not submitted to objective tests; habits of learned ignorance or systematized ignorings of concrete relationships," and terminates with a familiar theme: "dogmatic traditions which socially are harshly intolerant and which intellectually are institutionalized paranoic systems; idealizations which instead of being immediate enjoyments of meanings, cut man off from nature and his fellows" (p. 302).

If we recall Alexander's statement that the "subconscious self", disconnected from the conscious plane and perverted, is the source of the popular (if primitive) idea of a soul as a "hidden entity,"⁵⁸ the progress of Dewey's argument is easier to follow. For it becomes clear that the target is the spectator-soul only after Dewey has set forth his description of mind and consciousness. Nevertheless in the prelude to this description there are unmistakable intimations:

Thus the concrete problems of mind-body have their locus and import in the educational procedures by which a normal integration of meanings in organic functions shall be secured and perversions prevented (p. 303).

To Alexander's work, the remedial operations of psychiatry and the social



arts and appliances are now added.

To provide an intelligible basis for explaining the relationship between the "subconscious" and the "conscious" planes without importing an "inner man" or dualistic soul, "united to the body in an external way" (p. 295), Dewey distinguishes between <u>mind</u> and <u>consciousness</u>:

While on the psycho-physical level, consciousness denotes the totality of actualized immediate qualitative differences, or "feelings," it denotes, upon the plane of mind, actualized apprehensions of meanings, that is ideas. There is thus an obvious difference between mind and consciousness; meaning and an idea. Mind denotes the whole system of meanings as they are embodied in the workings of organic life; consciousness in a being with language denotes awareness or perception of meanings; it is the perception of actual events, whether past, contemporary or future, <u>in</u> their meanings, the having of actual ideas (p. 303).

This means that "the field of mind--of operative meanings--is enormously wider than that of consciousness;" the greater part of it is only implicit in any conscious act or state. Find is contextual and persistent, a constant background and foreground which is, so to speak, structural and substantial. Consciousness is focal and transitive, an intermittent process; a series of heres and nows.

Neither the nature of consciousness nor that of mind can be conveyed in speech. They are immediate qualitative existences at which words can only hint or point. The indication succeeds when it evokes an actual experience of the thing in question. For the evocation of what is denoted by "consciousness," such words as apparency, vividness, clearness, etc., and their opposites may be of assistance. For "mind" a different set of names must be used: organization, order, coherence. Hence,

The relation of mind to consciousness may be partially suggested by saying that while mind as a system of meanings is subject to disorganization, disequilibration, perturbation, there is no sense in referring to a particular state of awareness in its immediacy as either organized or disturbed. An idea is just what it is when it occurs. To call it composed or perturbed is to compare one state with another, a comparison which by the nature of the case can be made only indirectly on the basis of respective conditions and consequences (p. 304).

Dewey illustrates this relation of mind to consciousness by the act of reading a book, on, say mathematics or politics. Meanings present themselves, and vanish. These meanings occurring existentially are ideas. But the prerequisite of our having them at all is our mathematical or political "mind": an organized system of meanings which we already possess, of which we are not at any one time completely aware, but which determines our particular apprehensions or ideas. Ideas are thus emergents from the habit systems constituting mind, and are determined by these systems. Once again, it is not a case of a spectator-mind gazing at things, acquiring ready-made ideas, and forming habits by their means. The habit already acquired determines the idea, for the idea emerges at the points where habit is being refashioned.

Consciousness, an idea, is that phase of a system of meanings which at a given time is undergoing re-direction, transitive transformation (p. 308).

With the idea (consciousness) thus located within the systems constituting mind, appearing as signs of readjustments being made there, and fashioned in terms of the aspects of the given system which are not in need of re-direction, the continuity of thinking with habit--and, by the same token, if more remotely, of body with mind--is thus safeguarded for Dewey:
There is ... a continuum or spectrum between this containing system and the meanings which, being focal and urgent, are the ideas of the moment. There is a contextual field between the latter and those meanings which determine the habitual direction of our conscious thoughts and supply the organs for their formation (p. 305).

The dualism of theological dogma and of subjective idealism is on this view gratituitous, and runs counter to empirical evidence.

As Dewey marshals the empirical evidence for his position, the shadow of Alexander gradually appears, though he is not mentioned by name again. We shall not follow this in detail, since cur purpose is not to delineate that shadow completely, but to offer a sketch sufficient to show its presence and importance.

One of the themes which we know to be connected with Alexander's theories, inhibition, makes its ap earance in this chapter in a manner reminiscent of <u>Human Nature and Conduct</u>. It is introduced in connection with "empirical evidence in support of the proposition that consciousness denotes redirection of meanings" (p. 311). There are, first of all, the obvious facts of attention and interest on one side, and the working of established habits on the other.

The familiar does not consciously appear, save in an unexpected, novel, situation, where the familiar presents itself in a new light and is therefore not wholly familiar. Our deepest-seated habits are precisely those of which we have least awareness. When they operate in a situation to which they are not accustomed, in an unusual situation, a new adjustment is required. Hence there is shock, and an accompanying perception of dissolving and reforming meaning (p. 311).

This "shock", the interruption of habitual activity which initiates reflection, is what we may call inhibition materially considered. There is



no distinction between the shock that just happens and inhibition as a deliberate act.

Presently, however, still as confirmation of the above hypothesis, it is elaborated psychologically, and then indicated as an element of method.

Confirmation of the hypothesis is found in the fact that wherever perceptual awareness occurs, there is a "moment" of hesitation; there are scruples, reservations, in complete overt action. ... We have to "stop and think," and we do not stop unless there is interference. The flood of action at high tide overrides all but the most considerable obstructions. It flows too forcibly and rapidly in one direction to be checked; without inhibition there are no hesitations, crises, alternatives, need of re-direction. Overt action is an enstatement of established and organic-environmental integrations. As long as these can maintain themselves, they do so; then there is no opportunity for transforming meaning into idea (pp. 313-314). ... Intellectual hesitations and reservations are used to expand and enrich the field of perception, by means of rendering activity more delicate, and discriminatingly adapted (p. 315).

After reviewing certain implications for education of his theory of consciousness, Dewey has some serious observations to make. the meaning of which can only be understood in reference to Alexander's work. Speaking of the general educational picture, Dewey says:

We have at present little or next to no controlled art of securing that redirection of behavior which constitutes adequate perception or consciousness. That is, we have little or no art of education in the fundamentals, namely in the management of the organic attitudes which color the qualities of our conscious objects and acts (p. 316, italics added).

What seems at first a repudiation of Alexander proves in the immediate sequel to be a warning that his program is a necessary one.

As long as our chief psycho-physical coordinations are formed blindly and in the dark during infancy and early childhood, they are accidental adjustments to the pressure of other persons and of circumstances which act upon us. They do not then take into account the consequence of these activities upon formation of habits and habituations. Hence the connection between consciousness and action is precatious, and its possession a doubtful boon as compared with the efficacy of instinct -- or structure -- in lower animals. Energy is wasteful and misdirected; in the outcome we effect the opposite of what we intended. Consciousness is desultory and casual. Only when organic activity achieves a conscious plane shall we be adequately aware of what we are about. As long as our own fundamental psycho-physical attitudes in dealing with external things are subconscious, our conscious attention going only to the relations of external things, so long will our perception of the external situations be subject at its root to perversion and vitiation (pp. 316-17).

There follows a conclusion which further indicates what Dewey meant in saying that Alexander's work confirmed and made more concrete the views he already had concerning the mind-body relation:

This state of affairs is the source of that apparent disconnection between consciousness and action which strikes us when we begin to reflect. The connecting links between the two are in our own attitudes; while they remain unperceived, consciousness and behavior must appear to be independent of each other. Hence there will be empirical reason for isolating consciousness from natural events. When so isolated, some persons will assert that oonsciousness is a slavish and capricious shadow of things and others will proclaim that it is their rightful creator and master. Assertions, like those of this discussion, that consciousness is their recognized meaning when they are undergoing purposeful re-direction by means of organic activity will seem to lack full empirical evidence (p. 317).

This theme, the refutation of the soul as a separate entity (which after theological dogma lost its currency took refuge in science), and of the position of subjective idealism, had, as we have seen, been operative earlier in this chapter and in the preceding one.



If Alexander's position is scientifically validated, then, as we said earlier, its premises contain implications and applications which vitally affect Dewey's philosophical thinking, since it touches the central nerve of his system, the theory of knowledge. We cannot here pursue these implications in detail. It is in fact far from certain that Dewey himself worked out the problems which they import into his system. But that he saw these issues and recognized them as problems should now be clear from what has been quoted from his own reports and works. To indicate the general direction in which these problems seem to lie, some remarks on sensation and perception may serve as a point of departure.

When Dewey says that "sensations and ideas ... are the 'stuff' of thought and purpose," (and that they are affected by habits manifested in the acts which give rise to sensations and meanings,)⁵⁹ his intention is quite different from what psychologists ordinarily intend by those terms. It is important to be clear on what that difference is. The question here hinges on the denotation which Dewey assigns to the terms "meaning" and "cognition" or "knowing", primarily, for consciousness or perceptual awareness is not necessarily cognitive in Dewey's sense. Contrary to the usual psychological accounts, sensation and perception are not apprehensions of qualities in an immediate subject-matter. They are discriminations made within a total experience which is presupposed as being <u>had</u> in its totality prior to the making of these discriminations. Moreover, they are not the "stuff" of thought and purpose in the sense that

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they supply an "inner" consciousness--much less an intellect--with immediate information about "external" things. "To nowledge is ever immediate" (p. 322), Dewey says, and on this occasion he covers both sensation and perception by the term "knowledge." But if "knowledge" is taken strictly to mean <u>cognition</u>, both sensation and perception as events, <u>in their immediate existence</u> are extrinsic to cognition. Though prerequisite to knowing in the strict sense, they are in their immediacy merely <u>had</u>, and not in themselves immediately <u>known</u>.

Sensations (or sensa) are shocks in feeling which occur in experience. But they are also qualitative events, capable of objective reference. To this extent they are a class of meanings

They are a class of meanings which embody the mature results of elaborate experimental inquiry in tracing out causal dependencies and relationships. <u>This inquiry depends upon prior possession of a</u> <u>system of meanings</u>, physical theories of light, sound, etc., and of knowledge of nervous structures and functions (p. 326, italics added). That is to say, their meanings are perceived in terms of habits already formed. Perception, which is consciousness or perceptual awareness is the laying hold of <u>objects</u>, not of <u>events</u> in their immediacy. Objects are events with meanings, events as signifying something other than what they are themselves. Put the other way, meanings are relationships of <u>objects</u>, not qualities of an immediate subject matter. They, too, are conditioned by prior habits.

Sensations as they appear in consciousness are thus perceptions or perceived meanings. But perceptions are cognitive only when they are used. When they are "treated as a sign of conditions that implicate



other as yet unperceived consequences in ad ition to the perception itself. That a perception is <u>truly</u> cornitive means that its active use or treatment is followed by consequences which fit appropriately into the other consequences which follow independently of its being perceived" (p. 323). The test of consequences also reveals the co_cnitive invalidity of a perception.

To discover that a perception or an idea is cognitively invalid is to find that the consequences which follow from acting upon it entangle and confuse the other consequences which follow from the causes of the perception, instead of integrating or coordinating harmonicusly with them (pp. 323-24).

Hence the <u>causes</u> as well as the consequences of the perception are to be <u>checked</u>, for these are the conditions of perception itself. And this checking is the business of science:

The special technique of scientific inquiry may be defined as consisting of procedures which make it possible to perceive the eventual agreement or disagreement of the two sets of consequences. For experience proves that it is possible for great disparity between them to exist, and yet the conflict not be perceived or else be explained away as of no importance (p. 324).

That is, the conflict may not be perceived by merely scrutinizing the respective meanings, for the meaning (or perception) of a horse and of a centaur do not differ as perceptions; their cognitive validity or inval-

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is not an affair of intrinsic difference in the to perceptions, which inspection of the two states of awareness as such can ever bring to light; it is a causal matter, brought to light as we investigate the causal antecedents and consequents of the events having the meanings (p. 321).

We shall return to this matter of the conditions of perception.

Philosophy, it must be meanwhile noted, also has a claim staked



out in this field of meanings and consequences.

Fhilosophy must explicitly note that the business of reflection is to take events which brutely occur and brutely affect us, to convert them into objects by means of inference as to their probable consequences. These are meanings imputed to the events under consideration. Otherwise philosophy finds its 1f in a hopeless impaste. For, apart from making a distinction between events and objects, it has no way of differentiating cognitive from esthetic and literary meanings, and within cognitive meanings it has no way of distinguishing the valid from the invalid (p. 325).

For if one ascribes intrinsic cognitive intent to all perceptions or forms of awareness instead of defining cognition itself in terms of antecedents and effects, as Dewey does, he asserts that there is no way of distinguishing the waking image as a sign of a "reality" from a dream. On the other hand, philosophy thus properly conceived avoids the epistemological troubles of idealism and epistemological realism. In Dewey's case.

philosophy has only to state, to make explicit, the difference between events which are challenges to thought and events which have met the challenge and hence possess meaning. It has only to note that bare occurrence in the way of having, being, or undergoing is the provocation and invitation to thought--seeking and finding unapparent connections, so that thinking terminates when an object is present: namely when a challenging event is endowed with stable meanings through relationship to something extrinsic but connected (p. 326).

The philosopher, then, quite as well as the scientist, had better take ar interest in the conditions of perceptions (meanin s), that is, in their causes (antecedents) and effects (consequences), for in these terms alone are perceptions known as valid. Otherwise, as experience proves, (and as Alexander showed, we might add,) the great disparity which can occur between perceptions and consequences may go unperceived, "or else be explained away as of no importance" (p. 326). . .

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So ething more ust the said about the conditions of perception. "Part of the conditions of <u>any</u> perception, valid at well as invalid, scientific as well as esthetic, lie within the organism" (p. 322). Yet the antecedent conditions, acts, and consequences "lie outside the primary perceptions; [they] have to be diligently could and tested for" (p. 322). when found, they warrant the meanings, and knowledge or cognition is had. But the process starts on the side of meaning. "There is no knowing without perception of meaning ... (p. 322). ... No knowing takes place without an overt act of taking and employing things on the basis of their meanings" (p. 331). But meanings are conditioned in their origin by organic habits already formed. How does one get to the oottom of this? That is, how can one be sure of the meaning of the test or of the consequences? Cr. what is more critical, how can one be sure of the antecedents?

The answer cannot be, in the popular phrase, that "seeing is believing". At least sense perception is no adequate guarantee. For if seeing and hearing, the ultimate checks on "the particular sort of reference which should be given to an idea" (p. 335), are antecedently conditioned in an adverse way, they are at the mercy of objective conditions, the control of which is uncertain. Deway has said that

awareness in the form of auditory and visual perception is, whenever it is cognitive, just as much a matter of inferential judgment, an instance of a way of taking and using meanings, as is any proposition found in the science of physics (p. 332).

The situation is not improved when we realize that the whole psycho-physical organism is in some degree involved in awareness, so that there is, for example, no real distinction at the outset between perception of



"peripheral sensations" and intra-organic events; "the distinction is one made by analytic and classifying thought" (p. 333). Moreover,

Internal conditions, those of hunger, blood-circulation, endocrine functions, persistences of prior activities, pre-existent opened and blocked neuronic connections, together with a multitude of other intra-organic factors enter into the determination of a peripheral occurrence. And after the peripheral excitation has taken place, its subsequent career is not self-determined, but is affected by literally everything going on with the organism. ... A particular excitation is but one of an avalanche of contemporaneously occurring excitations, peripheral and from proprioceptors; each has to compete with others, to make terms with them; what happens is an integration of complex forces (pp. 333-34).

The range of variables in the genesis and control of perceptions, then, is wast, and Dewey has already said that we have as yet (except for Alexander's technique, it would seem) no satisfactory method for their control. We recall, too, that he used this very absence of control to impugn the findings of men of science, and added that it could spell the impending ruin of civilization.

After pointing out that it is one thing to employ "the distinction between central and peripheral origin of the existence of this and that idea as part of the technique of determining their respective cognitive validities," (p. 341), and on the other hand assuming that the distinction is given antecedently to consciousness, (a parallelist notion which seems to have suborned science,) Dewey observes:

If the problem is put as one of a more adequate control of behavior through knowledge of its mechanism, the situation becomes very different. How should we treat a particular meaning: as sound datum for inference, as an effect of habit irrespective of present condition, as an instance of desire, or a consequence of hope or fear, a token of some past psycho-physical maladjustment, or how? Such questions as these are urgent questions in the conduct of life...

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which we must find a way of answering if we are to achieve any method of mastering our own behavior similar to that which we have achieved in respect to heat and electricity, coal and iron. And knowledge of the conditions under which our meanings and our modes of taking and using them organically is an indispensable portion of dealing with such questions (pp. 341-42).

This will involve physiological inquiries, whose subject-matter consists

of organic structures and processes. This difference in subject-matter

involves no peculiar mind-body problem, any more than do astronomical

inquiries. However,

the peculiar importance of the physiological material is that in some form <u>it enters as a factor into the occurrence of every meaning</u> and every act, including the astronomical and botanical (p. 342, italics added).

All consciousness is awareness of meaning, and

the view of complete separation of existential consciousness from connection with physical things cannot be maintained in view of what is known of its specificable connections with organic conditions, and of the intitate, unbroken connection of organic with extraorganic events. It can be maintained only by holding that the connection of consciousness in its varied forms with bodily action is non-natural (p. 343).

This "connection of meanings with environmental-organic integrations (including those of social intercourse)" (p. 344), is to be taken in a straightforward and literal sense, and Dewey's illustration in the sequel makes it plain that this physiological factor which enters into the occurrence of every meaning is organic habit. The illustration is that of a man who has been taught that the sun revolves around the earth. He believes this doctrine, is satisfied with it, and it affects his behavior.

Past consummatory experiences have taught the individual many things;



they have taught him what conjunctions are agreeable and what disagreeable. Just as past teaching regarding sun and earth have conditioned subsequent behavior, have produced organic modifications in the way of habit which influence subsequent reactions, including interpretations, so with what was taught by having been implicated in a consummatory union of environment and organism (p. 344, italics added).

Then, immediately, a new element is developed:

Here too a bia. in organic modification is set up; it acts to perpetuate, wherever possible, awareness of fruitions, and to avert perception of frustrations and inconvenient interruptions (p. 344).

This bias or feeling which determines meanings--and can do so to the exaggerated extent of revery and dream life--will repay closer inspection. Once more this bias or feeling is organic habit, but now as determined by consummation or satisfaction, and as tending to be selfmaintaining on that basis.

The organism, wherever possible, participates <u>a son gref</u>; its taste and bias are conditioned, in the degree of its susceptibility and retentiveness. upon prior satisfactions (p. 345).

It is also the principle of retention or remembering:

Every perception, or awareness, marks a "this," and every "this" being a consummation involves retention, and hence contains the capacity of remembering (p. 352).

The context here seems to be suggesting the same sort of thing that Alexander said about "wrong" habits, namely that our badly coordinated acts come by habit (or bias) to "feel right," that unless we are corrected we think them to be right, and that even after we have been intellectually convinced that they are wrong the old habit still feels right and tends to repeat itself in the old way.

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There is, it is true, some variation in Dewey's use of the term "feeling," depending on the context in which "mind" is being discussed. But in a being in which language and the recognition of meaning are found, feeling is always distinguished from cognition or knowing, and, once at least, even from "mind", though this seems to be for emphasis.⁶⁰ The position here taken is that when Dewey uses the term "feeling" in distinction to consciousness or cognition, the denotation of that term is approximately (if not exactly) what Alexander means by the "subconscious mind" or the "subconscious plane." That is, it denotes the totality of the various systems of impulses and habits as they operate outside the focal point of direct consciousness, the point of actual re-making, re-direction, re-organization. This is indicated in some of the texts already quoted,⁶¹ and more could be adduced.⁶² Perhaps the most convincing text in this regard is to be found in <u>Human Nature and</u> Conduct, where Dewey is admittedly influenced by Alexander:

Immediate, seemingly instinctive, feeling of the direction and end of various lines of behavior is in reality the feeling of habits working below direct consciousness.⁶³

Once more, it is the context that supports the weight of the assertion. Immediately before this, Dewey had said:

Only the man who can maintain a correct posture has the stuff out of which to form that idea of standing straight which can be the starting point of a right act. Only the man whose habits are already good can know what the good is.⁶⁴

And there follows the reference to the psychology of illusion and to Aristotle's remarks on the untwittered moral perceptions of the good man, which we have already noted.⁶⁵



If our hypothesis is correct, then, and "feeling" for Dewey denotes what the "subconscious mind" does for Alexander, important consequences should follow for Dewey's theory of knowing if Alexander's contentions are proved scientifically correct. Let us consider first the assertion that the subconscious mind or instinctive equipment is perverted in modern civilized man, either at birth or very shortly thereafter. By 1923, Dewey appears to have accepted this view, though we have also indicated that he was interested in having the matter further explored by the usual technique of scientific (laboratory) procedure. In the chapter of <u>Experience and Nature</u> which we have been considering, in which he refers us to Alexander's works, he seems less sure of this point, as we are about to see.

In saying that what Alexander means by the "subconscious mind" is in most respects what Dewey intends by "feeling," we refer to a material similarity and have performed an obvious oversimplification. To remedy the shortcomings of our account and still arrive at our point by a short route, we must note some of Dewey's precisions which are not found in Alexander.⁶⁶

Mind, <u>apart</u> from consciousness, (or, still more accurately, the "'seat' or locus of mind") in the organic individual is "the qualities of organic action, as far as these qualities have been conditioned by language and its consequences" (p. 291). Beneath mind, so to speak, or prior to it, there are "organic and psycho-physical activities with their qualities [which] are conditions which have to come into existence



before mind, the presence and operation of meanings, is possible. They supply mind with its footing and connection in nature; they provide meanings with their existential stuff" (p. 290). Language, communication, is the differentia between these organic, psychophysical activities and "mind", the "mental." But mind considered thus is mind in its "static phase", i.e., apart from consciousness or actual knowing. Feeling or the having of images are qualities of <u>partial</u> actualizations of mind, partial because "not fully geared to extero-ceptor and muscular activities, and hence not fully complete and overt" (p. 291). More comprehensively, we may say that feeling is a partial actualization of the totality of habits, impulses, and retained meanings from past knowings, which partial actualization is preparatory to knowing. Like organic acts (of which there are feelings), they "are a kind of fore-action of mind" (p. 262). But, unlike bare organic acts, feelings have meanings, though not yet conscious meanings.

Differences in qualities (feelings) of acts when employed as indications of acts performed and to be performed and as signs of their consequences, <u>mean</u> something. And they mean it directly; the meaning is had as their own character. Feelings make sense; as immediate meanings of events and objects, they are sensations, or, more properly, sensa. Without language, the qualities of organic action that are feelings are pains, pleasures, odors, colors, noises, tones, only potentially. With language they are discriminated and identified. They are then "objectified": they are immediate traits of things (pp. 258-59).

Sensations, then, as discriminations of organic events, are also covered by the term "feeling". Feelings, then, turn out to be intermediate between bare organic action and conscious activity. They differ from organic in that they have, through language, acquired meaning. They differ from conscious knowing in that they are not meanings in actual cognition, focused



on a problematic situation. But as directives of action below the "plane of consciousness," they resemble the "instincts" of Alexander's subconscious mind.

Now, feelings and organic actions are continuous with the "external world", and moreover, "thinking is naturally serial with biological functions" (p. 279), and the very fact of language which is intrinsic to both thinking and feeling sets all these operations in a social context. Language itself is an <u>effect</u>, not a cause of communication for Dewey.⁶⁷

Since particular organic acts and feelings operate within a framework of habits and are conditioned by the latter, it follows that habits are the ultimate determinants of particular organic acts and feelings. Dewey has often said as much. Again, since psycho-physical habits are the "stuff" of cognition, and provide thinking with its continuity with the physical and social environment, there seems no way of escaping the conclusion that if there is "perversion" in our habits of organic action and feeling, then our thinking--our judgments not only of ourselves, but about everything--must necessarily be perverted to the same extent. And Dewey has also auggested this.⁶⁸

We know that Alexander resolutely held to his assertion that the instincts and sensory appreciation of all or most modern human beings are "wrong", and that consequently we have been deprived of our heritage of integration and coordination. In repeating this thesis, Dewey is

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content to use "we" and "our", witholding commitment on how widely the pronoun is extended. In <u>Experience</u> and <u>Nature</u>, however, he seems willing to entertain the proposition that instinctive action at the simplest level achieves adjustments which in the main are satisfactory, though again his precise meaning is not clear. Speaking of "common-sense"

adjustments, he says:

Certain organic integrations have to occur if life is to continue. Sustemance must be had; destructive enemies must be kept away, the help of others must be availed of. Meanings and ideas connected with these organic-environmental adjustments are successfully made--and within limits they are ordinarily so made, or life ceases (p. 346).

Put this way, the concession is one which even Alexander would have to make, in view of the fact that people continue to live. But presently Dewey goes a little further:

Gradually the technique involved in making ordinary organicenvironmental adjustments is discovered and becomes capable of extension to cases where fancy had previously reigned. A larger and larger field of ideas becomes susceptible of analytic objective reference, with the promise of approximate validity. The secret to this control lies in the ways in which the organism participates in the course of events. In the case of simple needs and simple environments, existing organic structures practically enforce correct participation; the result is so-called instinctive action. Within this range, modifications undergone by the organism form in the main effective habits (p. 347).

It is possible, of course, that Dewey is thinking here of the comparatively simple adjustments which are demanded of individuals living in "simple environments" which are not part of the highly complex modern civilization. This would explain the contrast which immediately follows:

But organic preparation for varied situations having many factors and wide-reaching consequences is not so easily attained. Effective participation here depends upon the use of extra-organic conditions, which supplement structural agencies; namel,, tools and other persons, by means of language spoken and recorded. Thus the ultimate buttress

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of the soundness of all but the simplest ideas consists in the cumulative objective appliances and arts of the community, not in anything found in "consciousness" itself or within the organism (p. 347).

In the absence of concrete illustrations of what he means by these two environments, in one of which "existing organic structures practically enforce correct participation" because of simple needs and simple environments interacting, and in the other of which "organic preparation" is not so easily attained because of complex factors, we have suggested that he is contrasting complex civilized life with something closer to the "state of nature." We have also intimated that Dewey appears to be witholding complete assent to Alexander's insistent proposition that practically all men living civilized lives are badly coordinated from the start, and that civilized conditions progressively aggravate this malcoordination. We have also suggested a reason for this reservation of judgment, viz, that Dewey was anxious to have more conventional (i.e., technical, statistical) confirmation of this proposition than Alexander has provided. Mr. Frank's report of Dewey's approval of a joint project to be carried out by the Alexanders and the staff of a medical school to see how early babies "went wrong on the head-neck relationship, " though later in date than Experience and Nature. adds to this impression. It is true, of course, that the implication in Mr. Frank's account is that Dewey's motive was in large part to make comunication -- and thus conviction -- possible for those skilled in the recognized techniques. 69

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There is, however, a still later docu ent in which the same concern for technical scientific inquiry into the tter appears without any coloring of apolo etics. This is a letter written by Dewey to Dr. Jones on December 8, 1949, in which he makes concrete suggestions concerning matters to be included in a technical study of Alexander's work.⁷⁰ These recommendations had to do with the content of a report to a foundation disposed to subsidize such a project. After listing such items as myographic records, comparative studies of "persons who have been subjected to the Alexander treatment," and "arbitrarily selected individuals and animals," Dewey adds some observations which add plausibility to our interpretation of his remarks in Experience and Nature.

It may be well to suggest that later they would probably be able to get registrations from uncivilized peoples, say, South African blacks who had not been subjected to the strains of "civilization." When I was there I was struck by the extraordinarily fine carriage of these savages, men and women, the latter carrying great loads on their heads long distances with perfect poise and ease. There are negro women in Jamaica who carry upon their heads loads of milk from the top of a mountain to Montago Bay Hotel--on a road so steep that autos can't go up...⁷¹

There is no difficulty in conceding that carrying loads balanced on one's head even under adverse physical conditions is a simple "organic-environmental adjustment," as compared with the tasks imposed on men in modern civilized conditions, such as managing a bank or administering the affairs of a nation.

Nevertheless, whether or not Dewey in the passage quoted from Experience and <u>Mature</u> is contrastin adjustments made in primitive environments and civilized conditions, respectively, some rather remarkable features still remain. For, even if he is not conceding reliable "so-called

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instinctive action" and "in the main effective habits" to the si plest ideas in the case of civilized man, it is surprising that in a chapter where we have been referred to Alexander's books for the second time he leaves this point in doubt. The discussion can be--and presumably usually is--read without taking note of the contrast which we are suggesting is involved. In this case, Dewey is seen as denying by implication Alexander's most fundamental thesis: that the <u>very</u> simplest of man's adjustments, on which <u>all</u> others depend, is in the case of all or most civilized men unsatisfactory and unsuccessful, and the cause of his physical, mental, and moral ills. But both before and after he wrote <u>Experience and Nature</u>, as we have seen, Dewey expressed himself in agreement with Alexander's principle.

That the point is not being labored here should be apparent from Dewey's final remark before he turns aside to another matter. "The ultimate buttress of the soundness of all but the simplest ideas consists in the cumulative objective appliances and arts of the community, not in anything found in 'consciousness' itself or within the organism" (p. 347). Language (meanings), habits, conduct, morals, and right judgments are for Dewey socially determined. But the "tools and other persons, ... the cumulative objective appliances and arts of the community" which constitute the social aspect of behavior are <u>supplements</u> to structural agencies. The "means whereby" to right judgment are on the side of the psycho-physical organism. If there is "perversion" at the root of the ultimate agency of intelligent action, and if this perversion



is a widespread condition among civilized men, our world is indeed 'A Sick World.' Yet Dewey hesitates to insist on this in <u>experience</u> and <u>Nature</u>, for all that it is an inevitable consequence of what else he says, if Alexander's thesis is scientifically valid.

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Earlier we raised the question of how one gets to the bottom of the problem of finding a test--perhaps <u>the</u> test--for warranted meanings.⁷² Dewey finds the warrant of meanings in the antecedent conditions and the consequences of the idea, with the weight on the consequences, the resolution, outcome, or consummation. That is to say, an idea is verified or "warranted" by its effective consequences when, and only when, they actually occur. This is a constant principle for Dewey. But perception, awareness, and therefore ideas themselves are modified by the antecedent conditions from which they originate. These conditions are psycho-physical (organic) as well as environmental (physical and social.)

In 'A Naturalistic Theory of Sense Perception'(1925), 73 Dewey says:

Perception does not affect or infect the nature of the qualities perceived, although sense-<u>organs</u> and their structural connections, which are the means of perceiving, do affect the properties of the thing produced.... There is nothing unique or peculiar about this fact. The same thing happens in any natural sequence when traits of a consequence are correlated with traits of interacting antecedents (p. 189).

Thus, when we speak of "sensory" qualities, the adjective refers neither to the act of perceiving as such, nor to the qualities themselves.



"'sensory' designates an i portant co dition of their (sc. qualities) occurrence, not a constituent in their nature" (p. 1.9). For although "upon the naturalistic theory all perception is on and the same"(p. 189), "in each case the act and its consequences are modified by the traits of the organs and means which are involved" (p. 188).

In the article from which the above quotations are taken, which is contemporaneous with <u>Experience and Nature</u> and thus slightly later than the 'Introduction' to Alexander's <u>Constructive Conscious Control</u>, Dewey says that variations in the conditions under which qualities occur, or are perceived, <u>do</u> affect the thing or object perceived, but "they do not concern the nature of perception, awareness, or knowledge" (pp. 188-89). Differences in perception itself are introduced by factual subjectmatter and the conditions under which qualities or events occur, but "the effect of sensory and other organic conditions upon the particular things which we perceive does not create a problem as to the nature of perception as such" (p. 191, n.). Dewey illustrates this with examples:

The difference between an object perceived by means of the senses and an object recalled by means of some other organic structure is comparable to the difference between any two concrete things, say between a cat and dog, land and water. The difference is one in factual subject-matter, "sense-presentation" having for its subjectmatter a thing in some present space-relation, emory-presentation that thing in a specified past temporal relation (p. 190).

The same is true of the

contrast of things presented as "conceptual" (or reflectively determined) objects in distinction from "sense" objects. ... The difference between colors and, say, electromagnetic disturbances is a difference in specified facts in one and the same world of object., comparable again to the difference between land and water as objects of perception (p. 190).

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Perception and reflection themselves, as processes, are uniform.

We shall not stop to ask what metaphysical problems are raised by this position, nor whether they are answered in this essay consistently with what Dewey says elsewhere at this time about perception and cognition. What concerns us immediately is how the cognitive validity of a particular act of perceiving a subject-matter conditioned by organic factors ("sensory" factors) can be tested and corrected. By its actual, observed consequences, we have been told repeatedly. But if the conditions of perception can alter the things perceived and the properties of the thing produced in the act of direct perception (the object), and if sensations and perceptions are the "stuff" or subject matter of any given acts of reflective thinking, then the testin operations themselves must be subject to the same sort of antecedent conditioning. What tests the test?

The problem is complex, and Dewey's solutions do not always appear uniform, but his treatment of the traditional "bent-stick" illusion in this article leads us back to Alexandrian territory. The question is raised in connection with the specific location of an object.

Every psychological book is full of instances of the fact that specific location is not inherent or intrinsic, but has reference to the actual or potential behavior of an organism in effecting a course of events. The location of the stick which is in the air is related to a certain habit of reaching and handling. This habit being adapted to a certain medium does not work correctly when refraction of light occurs under unusual conditions. A wrong, an inefficient, unadapted, act hence takes place. Then the habit is re-made, specific location again takes place correctly (pp. 199-200).

In this case the proximate conditioning factors of the object perceived



are, on the side of the or nism, previously ac wire motor habits.

Dewey continue::

There does not appear to be any further mystery in the cases which are frequently employed to show that some objects of perception are mental in nature. Anyone who lers to use a dicroscope, or even a mirror, learns that specific location is a practical matter, not a literal existential one, and that unusual conditions of the coordination of acts of seeing and reaching occasion difficulty in locating until a new habit is set up. That certain images of light cannot be located in space signifies, then, only that the practical act of reaching and grasping in their case, does not without pains and practice, fit into the established systems of habits which customarily determine the seat, residence, or situe of an affair, the latter being physically and literally a complex interaction, covering a vast field (p. 200).

The principles here at work are already familiar to us from what we have seen of <u>Human Nature and Conduct</u>. Sensations and particular acts of perception cannot occur save against a background of habit. The habit is <u>prior</u> to the act, and conditions it. To change the act, the habit must be changed first. And we are further reminded that the new habit must, with pain and practice, be fitted into other established systems of habits--he entions motor and visual coordinations in his example--in order that the operation of locating a thing may "again take place correctly."

The small segment of sensory perception (perception by means of sensation) and its correction or validation which Dewey has presented here appears at first sight to be a simple and sufficiently convincing case, but what else he says reminds us that the question has not been completely stated, much less answered. We have presented evidence so far that between the writing of <u>Human Dature and Conduct and Experience</u>



and Wature (and the article just quoted), Dewey aid not change his view that Alexander was substantially correct in his experimental findings about "sensory appreciations", and in at least so e of the corr lusions which he drew from them. Alexander's experimental investigations had convinced him that the basic conditioning factor of sense perception on the side of the organism is the habit regulating the orientation of the parts of the organism itself to one another and in space. It was for him basic in th t it conditioned all other habits, and therefore all other acts of perception in some degree. Lore, he considered it the habit underlying all other habits, which latter had to be formed in its terms -- within it, so to speak -- as the necessary physiological condition for the integration of all habits and operations. He further postulated it as the prerequisite of correct "feeling", thinking, and moral conduct. It was this fundamental habit or mechanism that he later (probably not yet in 1925) called the "primary control of use". We also know that he thought that his experience and observation supported the proposition that in modern civilized man this basic habit was "debauched" or "perverted," causing consequent hall cination in perception, particularly of propricceptive acts. Having seen that there is reason to doubt whether Dewey was convinced on adequate scientific grounds that this condition of "debauched kinaesthesis" was as universal as Alexander maintained, we must now inquire if Dewey gives evidence that he considered Alexander's primary control or basic integrating mechanism also scientifically warranted.



Because of its consequences, this question of whether or not there is a primary control of use in human activity is closely connected with, and even overlaps, the preceding one of the correction of wrong sensory appreciations in a particular act or area. In pointing out above that in his analysis and solution of the "bent stick" problem Dewey had chosen only a small segment of sensory perception, and had not completely stated the question, we suggested this. The example concerns the relation of the psycho-physical organism to an object not integrally a part of itself. The relation was represented as disturbed by the partial character of habits acquired by one phase of sensation, and the correction was described as made by means of bringing into play other. but still partial, phases of sensation and effecting a reconstruction of the habits of both phases in a wider integration. Dewey said nothing on that occasion of "civil wars" that might be caused by the relation of this new integration to other habit systems already established in the individual. There is nothing, in other words, to dispel the impression that the illustration is an instance of making repairs in a particular system or systems dealing with external objects, with no necessary reference to the totality of habit systems, and still less to an ultimate controllin factor in function of which alone the successful integration or re-integration of all habits and habit systems can be effected. It may be objected that the occasion of Dewey's example offers no opportunity for relevant allusion to such a primary control, and that the argument from silence offers no support for conjectures as to whether Dewey was or was not convinced of the existence of Alexander's primary

control. The objection might have some force if Alexander's theory were other than it is, and if Dewey had not so comprehensively endorsed Alexander's work both on the basis of his psychological and philosophical knowledge and of his own experience with that work.

We need not press the point that to explain the reconstruction of habits involving locomotion and reaching, as well as coordination with visual activity, with no reference to the principle which gives meaning to reconstruction and coordination, is not consonant with Alexander's ideas. More significant, though still negative, is the consideration that the title of the article from which the above illustration is taken is a general one: 'The Naturalistic Theory of Sense Perception,' and yet it shows no identifiable trace of Alexander: certainly none of his basic positive principle. When we turn back to the references in Experience and Nature, whose abundant Alexandrian infusion we have examined, the same curious phenomenon appears -- or, rather, does not appear. There is nothing that can be interpreted as pointing to a "primary control of use," or to the function denoted by the equivalents of this later term. The same is true of Human Nature and Conduct. The basic positive principle is absent there as well. We submit that such a silence can hardly be accidental, and that the explanation of this avoidance of explicit commitment to a single, ultimate principle or mechanism of psycho-physical integration is the one already given in a more general way above. 74 Dewey was unwilling, in a public and professional work, to subscribe to and employ a physiological or psycho-physical principle which had not yet been established in a "public" and

. 4 communicable way, even though he was himself "scientifically" convinced of it by the test of its consequences in his personal experience. Communication and participation, the social as the all-inclusive category, constitutive even of science, would appear to have raised a crucial dilemma for Dewey in regard to Alexander's basic principle and its consequences. A word must now be said to indicate the outlines of this dilemma.

If we resume some of the issues which we have already examined and supplement them slightly, the problem immediately comes into view. In his 'Introduction' to Constructive Conscious Control Dewey unequivocally declares "the principle" to be solidly established on scientific grounds, because validated by the test of consequences which Alexander has shown to flow from that principle and no other. 75 Dewey does not name or otherwise identify the principle, but says that it concerns our sensory appreciation and judgment of ourselves and of our acts. He says further that it forms our standard of rightness, and that it is the "one factor which enters into our every thought and act." 76 Again. we read that although Alexander has "held aloof from building up an imposing show of scientific technical terminology of physiology, anatomy and psychology, ... that course also would have been easy in itself, and a sure method of attracting a following."77 The final census is that. after studying the method in actual operation over a period of years. Dewey would stake himself "upon the fact that [Alexander] has applied to our ideas and beliefs about ourselves and about our acts exactly the

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same method of experimentation and of production of new sensory observations, as tests and means of developing thought, that have been the source of all progress in the physical sciences."⁷³

To Randolph Bourne Dewey had asserted five years earlier:

Mr. Alexander's positive principle is, in effect, an education which will integrate the functions now so disastrously divided. The principle is experimental; it can be asserted and rendered intelligible in a book. From the book the idea which the reader can get will be but a more or less clear "intuition," [but] to say ... that it is an intuition with Mr. Alexander is to intimate that he is either the most ælf-deluded of mortals or that he is a deliberate faker of the first magnitude. The cleverness which presents a principle which claims to be one of conscious control, as if it were a matter of personal intuition, is not a cleverness which I envy "R. B."

In his letter to the unidentified antagonist two weeks later, Dewey summed up the matter of communicability in the case of Alexander's principle in these words:

I realize that to you this is all probably a matter of argument and opinion, while with Mr. Alexander and with those who have had the good fortune to get inside his principle or method it is a matter of sheer fact; he is the only person I have ever known, or known of, who knows what he is talking about in the sense that a competent engineer knows when he is talking about his specialty.⁸⁰

In both of these cases the point would seem to be the necessity of actually <u>having</u> the experience, as engineered by Mr. Alexander. The alternative offered to the "outside" reader--i.e., one making use of the usual means of communication--is having an "intuition" which the contexts suggest as being unscientific.

With or without personal intuition, the reader who examines the books of Alexander to which Dewey has written introductions is left



in no doubt as to what the positive, primary principle is, insofar as it can be described in words. It is the dynamic physiological relationship later called the primary control, from which all the desirable sensory and other effects flow when it is re-established as a habit. But the resulting new sensory experiences are of a kind totally diverse from those previously had. There can be no question that Dewey himself acknowledged the virtual impossibility of communicating in words this revised sensory experience to anyone who had not himself had it. He makes a point of this, for example, at the very outset of the 'Introduction'

to Constructive Conscious Control:

It is difficult for anyone to grasp its full force without having actual demonstration of the principle in operation. And even then, as I know from personal experience, its full meaning dawns upon one only slowly and with new meanings continually opening up. ... Only when the results of Mr. Alexander's lessons have changed one's sensory appreciation and supplied a new standard, so that the old and the new condition can be compared with each other, does the concrete force of his teaching come home to one. ... It is this which makes it practically impossible for anyone to go to him with any other idea at the outset beyond that of gaining some specific relief and remedy.⁸¹

Further, in the 'Introduction' to <u>The Hse of the Self</u>, Dewey added that the re-education of sensory appreciation resulting from the application of the primary control (now so identified and connected with the work of Magnus) adds a new quality to knowledge itself: that it enables one to "<u>know</u> in the full and vital sense of that word," and that "one who has had experience of the technique <u>knows</u> it through the series of experiences which he himself has. The genuinely scientific character of Mr. Alexander's teaching and discoveries can be safely rested upon this fact alone."⁸² And even this is not all, as we have seen, for it is here also that Dewey states that in the study of this work,

I found the things which I had "known"---in the sense of theoretical belief--in philosophy and psychology, changed into vital experiences which gave a new meaning to them.⁸³

There seems no escape from the conclusion that the establishment of the primary control and its consequences in an individual provides him with a new kind of knowledge, not communicable to those who have not had this experience, but which of itself is sufficient warrant to establish as genuinely scientific the process or technique by which it is made possible. It is true that Dewey had insisted on the scientific quality of the method by which Alexander arrived at his conclusions and devised his technique; that it had fulfilled the requirements of valid scientific investigation. Dewey identified these requirements or stages in Alexander's procedure in what we may call a public way. as we have already seen. But the inquiry terminates in an experience and even in a kind of knowledge which cannot so be publicly identified, nor communicated except by and to those who have already had the experience and knowledge in question. It should follow, then, that Alexander's technique and its results can be validly declared scientific only by those who have experienced them. The instrument itself not only enters the investigation, but is in a sense its effect.

Here, then, at least in part, is the dilemma. If the quality of being public and communicable is essential to scientific knowledge, and if, conversely, "private" knowledge (certainty) or "intuition" in the derogatory sense is never scientific, one of two things must happen in order that Alexander's theory and practice be widely accepted as

scientific. Either the public must be enlarged to fit the theory, or the theory must be enlarged to fit the public. That is to say, either the method must be adopted universally as a basic element of education--and this we know Dewey envisioned--or some means of communication must be found which will communicate the relevant experience at least analogously, say, by the reduction of the functions involved to the concepts of established anatomy, physiology and psychology.

The latter alternative, even if successfully accomplished, would not solve the problem. For although the adequate technical description of Alexander's findings and procedure were found or made to scuare with established technical knowledge in the relevant scientific fields, this would still not constitute Alexander's thesis as scientific, since the direct experience of the technique is left out of such description .. This would provide, in Dewey's words, only proof "by means of external evidence," such as that supplied by the work of Magnus.⁸⁴ Nevertheless we find Dewey actively interested in obtaining, promoting, and encouraging the technical investigation by the specialized laboratory techniques of the sciences just mentioned. On the other hand, we find Alexander displaying little or no interest in the furthering of such specialized investigation, except in so far as it contributed to the recognition and the spread of his discovery-an attitude which Dewey at times found extremely annoying. Passing over personal factors which certainly were at work, one cannot criticize Alexander too sharply for his attitude toward specialized scientific



technique. From his own perspective, the scientific approach was a partial and even partitive one, so that of its nature it seemed to him to miss the integral experience which he claimed as his discovery. He said as much on more than one occasion, and, granting his premises one must concede that his conclusion is logically valid enough.

Returning now to Dewey, we must hazard some reasons for his pursuing the opposite course to Alexander here, or what appears to be such. The first thing to be noted is that what Dewey expected from scientists was neither the discovery nor the technical explanation of a function or an experience which they themselves did not have. The discovery had been attended to by Alexander. The second alternative would have been unscientific. In all the cases of projected cooperation between scientists and the Alexanders of which the writer is aware, the scientists were to have had demonstrations, or, to a greater or lesser extent, lessons in Alexander's technique, so that the inquiry might proceed on common ground in that respect. Later, Dewey was anxious that those qualified in the technique should carry on scientific work independently of the Alexanders themselves, as in the later work of Dr. Jones.

This liaison established, the dilemma disappears from the investigation. But it must still be asked what could be expected in the way of results. For even if men scientifically equipped and also re-educated according to Alexander's principle were thus enabled to analyze and describe the function with scientific authority, the



problem of meaningful communication--even with other scientists, if they had not themselves experienced Alexander's principle in operation in themselves--would still remain in statu quo. As with color, it cannot be meaningfully communicated to one who has not had the experience of it.

If Alexander's method contained "the promise and potentiality of the new direction that is needed in all education,"⁸⁵ as in Dewey's judgment it did, it would obviously need recognition and acceptance by authorities competent to evaluate it before one could expect its widespread incorporation into educational programs. The aura of cultism which appeared to surround the books of Alexander and the procedures of some of his followers was not likely to contribute much to this, as Bourne had early pointed out. But if recognized scientists could be shown the light, and were able to detach, explain, and finally endorse, the structure of the method, prospects would improve both for education and-if we agree with all its implications--for civilization. This undoubtedly was to a large degree the practical end-in-view of Dewey's promotional measures.

But there were also possibilities for improving the condition of the methodological problem. The abstract, technical tools of physiological and psychological science, applied to the observable facts of the primary control, might link it up with the body of already warranted conclusions in those fields and set it in its appropriate scientific perspective. It was Dewey's view that



In its specialized sense, science is an elaboration, often a highly technical one, of everyday operations. In spite of the technicality of its language and procedures, its genuine meaning can be understood only if its connection with attitudes and procedures which are capable of being used by all persons who act intelligently is borne in mind.⁸⁰

Because of this necessary connection of the highest flights of science with everyday affairs, the successful scientific inquiry into the primary control might well provide the means for solving the above-mentioned dilemma indirectly. For if warranted scientific communication shout the primary control were established at the abstract, technical level, further experiment could be expected to yield the means of objective control which checked with those employed by Alexander. Concretely, this would mean the development of a standard and recognized scientific procedure for producing the psycho-physical conditions for this principle, the statement of which procedure would differ from Alexander's precisely in being in standard, accepted, "public" terms that could be verified by anyone trained to use those standard tools.

The locating of Alexander's principles within the domain of established technical or specialized science could be expected to have the additional advantages at the practical level which it is the office of those sciences to confer, such as, for example, those which mathematical or "pure" physics confers on engineers: economy and development of method. If by correlation with wider, and yet more specific and exact, knowle ge of the psycho-physical organism the arduous and somewhat cumbersome procedure of Alexander could be standardized, simplified, and made more readily and economically communicable, two more practical



problems might be solved. (1) The re-education of childr n and badly coordinated adults, and (2) the preparation of those qualified to teach the technique could both be carried out more rapidly and on a wider scale.

The fact that the service of established technical science was required to suplement and expand Alexander's work does not lessen the force of Dewey's declaration that his method and results, both in discovering and in teaching his principle, were themselves "scientific in the strictest sense of the word," and that his "plan satisfies the most exacting demands of scientific method,"⁶⁷ Briefly, the cue to this can be taken from the example of the engineer, for this example is also Dewey's. Since the scientific attitude or method, for Dewey, is "potentially universal," and even "inherently universal,"⁸⁸ an attitude which is "a quality that is manifested in any walk of life,"⁸⁹ and "manifested primarily toward the objects and events of the ordinary world and only secondarily toward that which is already scientific subject matter,"⁹⁰ the engineer is just as scientific in his field as is the "pure" scientist in his, each in the development of his method within his proper subject matter.⁹¹ And so, for that matter, is

the farmer, the mechanic, and the chauffeur, as far as these men do what they have to do with intelligent choice of means and intelligent adaptation of means to ends, instead of in dependence upon routine and guesswork,92

Sciences are diversified by their respective subject-matters. The attitude or method is basically the same in all.

The choice of the example of the engineer is not altogether



accidental. We recall that on one occasion Dewey declar d that Alexander "knows what he is talking about in the sense that a competent engineer knows when he is talking about his specialty."⁹³ In the 'Introduction' to Human Mature and Conduct, he also said:

There are in truth forces in man as well as without him. While they are infinitely frail in comparison with exterior forces, yet they may have the support of a seeing and contriving intelligence. When we look at the problem as one of an adjustment to be intelligently attained, the issue shifts from within personality to an engineering issue, the establishment of arts of education and social guidance.94

Since Alexander was engaged in what Dewey considered the most basic of the arts of education, we seem to be doing no violence to Dewey's thought by combining the content of these two remarks with what has just been quoted from 'Unity of Science As a Social Problem, ¹⁹⁵ and constructing a hypothesis concerning Dewey's guarded references to Alexander in his books, and their eventual disappearance.

Whether or not Dewey saw as real what we have called the dilemma of the situation, it could hardly appear otherwise to one who had had no convincing experience of the principle in actual operation. The principle had looked like "intuition" to Bourne, to whom Dewey's somewhat nervous retort suggests his sensitivity to the point. The nature of the principle and its inaccessibility to "outsiders" was bound to suggest the occult and the esoteric, and the same charge is reflected in more than one review of Alexander's books. If science is an affair not of the individual but of the community, and if "the first requirement of scientific procedure [is] full publicity as to materials and processes,"⁹⁶ our dilemma now appears in social and eminently practical form. Pending the establish-


ment of such publicity in the case of Alexander's principle, the larger part of the public had no way of seeing what this principle was. It could accordingly be depended upon to respond in the standard way to what could only seem a mustery from which it was excluded. What actually happened bears this out, but its history need not be recited here. Our point can be made more simply by saying that until most people understood precisely what Dewey meant in calling Alexander's principle and method scientific, some hesitation could be expected in the general acceptance of this statement on the same authority that declared full publicity of materials and processes to be the first requirement of scientific procedure. The question here is one of fact, not of doctrine. But until some more adequate explanation is found, it may serve to account for the increasing disparity between Dewey's personal and sustained enthusiasm for and acceptance of Alexander's work as pasically sound and valid, and the cautious allusions to it in his professional works.

The tension created for Dewey himself by the _p between his remonal conviction and the lack of the requisite transparency of the Alexandrian principles seems to have increased as time went on. Here, too, there is a complicated history which supports this assertion, but again there is a shorter way to indicate the existence of this tension. Parallel with it, and conceivably a contributin, factor, is Dewey's increasing tendency to weight the social character of science (and of philosophy.) This is especially discernible in 'The Social As a Category,: (1928) ⁹⁷ 'Unity of Science As a Social Problem,' (1938)⁹⁸

Theory of Valuation, (1939)⁹⁹ though the conception is a standard fixture througnout bewey's later period. There is however one paper of bewey's belonging to this period, which, given the background outlined above, seems to the writer to afford a brief glimpse of its author's preoccupation with bringing the workings of the "inner machinery" out into the public forum and the scientific gaze.

In 1937 Dewey gave an address before the College of Physicians in St. Louis, Missouri, published under the title, 'The Unity of the Human Being.'¹⁰⁰ His chief concern is to locate the principle of unity of the human being in a wider field than that defined by the boundaries of the individual psycho-physical organism. This rinciple, he feels, is not to be found in "subcutaneous" affairs, as some behaviorists think (p. 823). That is to say, the integration of the various parts and functions within the organism is not to be explained in isolation from interaction with the physical and, more particularly, the social environment, but is to be sou ht in a wider field:

The boundaries by which we mark off a human being as a unit are very different from the energies and organization of energies that make him a unified human being (p. 820).

This unity consists in "the way in which a number of different persons and things work together toward a common end"(p. 820). It is to poral--that is, historical---as well as spatial, and thus cannot be grasped in any number of "cross-sections" observed at a given time, though the physical boundaries of the human unit may be so rasped at any time. Since all events have both histories and consequences, "we can grasp



the unity only, so to speak, longitudinally--only as something that goes on in a stretch of time" (p. 820). More,

"Unity of the human being" only indicates, at best, a point of view, and the point of view has no meaning save as it is used as a vantage point from which to observe and interpret actual phenomena (p. 819).

From this point of view one must see beyond such separations as those made between mind andbody,

between the structural and the functional; between the brain and the rest of the body; between the central nervous system and the viscera; and most fundamentally, between the organism and the environment. For the first of each of these pairs of terms-structure, brain, organism--retains something of the isolation and alleged independence that used to belong to the "soul" and the "mind" and later to "consciousness" (pp. 818-19).

However, Dewey does not wish to erase the <u>distinction</u> (as opposed to the separation) between structure and function, organism and environment. When we suppose that we would know all about a man if we could find out everything that is happening in his brain and other parts of his nervous system, in his glands, muscles, viscera, heart, lungs and so on, up to a certain point we are on the right track.

We can get a better idea of the unity of the human being as we know more about all these processes and the way they work together, as they check, and stimulate one another and bring about a balance. But the one positive point I wish to make is that while this is necessary, it is not enough. We must observe and understand these internal processes and their interactions from the standpoint of their interaction with what is going on outside the skin--with that which is called <u>environment</u> if we are to obtain a genuine conception of the unity of the human being (pp. 820-21).

This unity is ultimately socially determined: "unity and its breakdowns must be sought for in the interactions between individual organisms and their environment, specially that of human as ociations" (p. 829).

In marking the importance of the knowledge of structure and function, Dewey makes some of his points with rather startling force.

After saying, for example, that

the structures and processes of the central nervous system do not have that immediate connection with the outside world that the peripheral neural structures have (p. 822),

and that to this extent their connection with the environment "is a

stage more indirect," he observes:

There is many a mathematician who would be shocked if he were told that his constructions had anything to do with activities carried on in the environment. Yet we know that neural structures and processes developed in control and use of the environment are the organs of all thinking (p. 823).

Moreover,

We cannot be scientific save as we seek for the physiological, the physical factor in every emotional, intellectual and volitional experience (p. 827).

To "be scientific" in this sense, though necessary, tells us little enough about the unity of the human being.

The whole difference between animal and human psychology is constituted by the transforming effect exercised upon the former by intercourse and association with other persons and groups of persons. For, apart from unconditioned reflexes, like the knee-jerk, it may be questioned whether there is a single human activity or experience which is not profoundly affected by the social and cultural environment (p. 825). ... It may be doubted whether there is any idea, no matter how intellectual and abstract, that is not tinged, if not dyed, with emotion that arises from the total response of the whole organism to its surroundings (p. 833).

How literally this is intended can be seen from the consequences on

which Dewey repeatedly insists:

The whole ground for the difference between a sensation and an emotion seems to lie in the absence or presence of a response coming from another human being (r.831). The only verifiable basis



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we have for marking off the experiences that have practical, emotional and intellectual significance from those which do not is the influence of cultural and social forces upon internal physiological processes (pp. 826-27).

Still more, the operation of "living situations created by human contacts" is the only intelligible grounds upon which we can distinguish between distinctively human qualities and those which we share with other animals. The <u>occurrence</u> of a sensation, which is an interaction between certain neural processes and certain vibrations, is the same in principle in animals and in man. But the <u>significance</u> of the sensation--say, the quality of red--can be accounted for only "in terms of adaptation of the behavior of individuals to one another"(p. 826).

The burden of the address is that physicians, by the nature of their profession, occupy a position of unique opportunity, and also of responsibility. A new and more comprehensive kind of knowledge is needed to solve in practical affairs the problems of dualism and monism which infect modern life, which knowledge will take into account the operations and effects of relationships between human beings. In many fields, including that occupied by "our entire traditional psychology" (pp. 825-28).

there is a great deal of description and interpretation ... in which the structural and static lord it over the active and functioning. Whenever we find this to be the case we may be sure that some structure of the body has been described and interpreted in isolation from its connection with an activity in which an environment plays an integral part (p. 823).

This is an objection which we have heard before, although it now has moved into wider territory. Instead of being an objection to the development of a particular function or set of functions without regard to--and

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to the detriment of -- the integral functioning of the psycho-physical organism as a whole, as was the case, for example, in <u>Experience and</u> <u>Nature</u> at a point where we are referred to Alexander,¹⁰¹ the objection now is that the individual is a part which cannot properly function or be developed except in relation to the whole which is society. But Dewey had explicitly declared in this same address that the unity that gives "the clew to understanding the unity of the human being" is "the unity of a family, the unity of a nation, ... the way in which a number of different persons and things work together toward a common end" (pp. 819-20).

The passage just quoted continues immediately:

On the other hand, when physicians proceed to regulate the diet, sleep and exercise of patients, when they inquire into and give advice about their habits, they are dealing with the "use of the self" in its active functional connection with the outside world (pp. 823-24, italics added).

The sudden appearance, in inverted commas, of the title of Alexander's book to which Dewey had written an introduction some five years earlier, may not have been intended as an allusion which his audience was expected to identify, (the book was derisively reviewed in the leading medical journal in America,)¹⁰² but at least it indicates to us the direction of his thought. He continues:

What, then, I am urging is simply the systematic and constant projection of what is here involved into all our observations, judgments and generalizations about the unity and the breakdowns of unity of human beings. For its implications are that all beliefs and practices which gratuitously split up the unity of man have their final root in the separation of what goes on inside the body from integrated action with what goes on outside (p. 824).



The psychiatrists have made much of "withdrawal from reality," he adds, and the role of this withdrawal in pathological occurrences has been made familiar. But these withdrawals are cases of the interruption or cessation of "the active operative presence of environing conditions in the activities of a human being," and the resulting pathological phenomena are

evidences that the self loses its integrity within itself when it loses its integration with the medium in which it lives (p. 824).

Because "physicians are the persons who have the most direct, intimate and continued contact with the living situations in which the problem is most acutely present"(p. 828), it is to them that we must look for the kind of knowledge that is now so largely lacking. This is the knowledge that can come only from "continued and persistent study of the concrete effect of social situations upon individual human beings, and the effect, in return, of human beings upon social relations" (p. 835).

Since Dewey had Alexander's work in mind at least once during the development of this address, we have now the precarious task of attempting to locate that work, at least in a general way, in the picture he has sketched. The principle of exclusion seems the only hopeful approach in this attempt. There are two types of procedure censured by Dewey. One is the ultra-specialized technique of description and interpretation in which the structural and the static lord it over the active and functioning. The other is the method whose description and interpretation is functional enough, but which remains "within the skin" or

the organism in giving its account of the unity and operation of the human being. Quite obviously Alexander cannot be confined within either of these categories. The first is frequently one of his own targets, while the continuity of the integrated, psycho-physical functioning of the individual with his physical and social environment is an integral-though not always explicit--part of his doctrine. There is more than a hint, for example, of the force of these factors in his key notion that the individual's "instinctive" or subconscious mind is progressively perverted "below the plane of consciousness" by early training and the rapidly changing conditions of civilized life which outstrip his ability to change in adaptation to them.

At the other extreme Dewey has sketched a position, indicating it as his own, in which the outlines of the individual are blurred to the point of being indistinct. This is not the case in the teaching of Alexander. There the individual, when re-educated, clearly administers his own affairs. The degree in which he does so in his environmental context is a barometer of his progress in the method of conscious control.

In a general way, then, Alexander seems to belong with the doctors, alongside whom Dewey made a small space for even ordinary educators in his classification of the methods to be used in developing the new knowledge.¹⁰³ But, although Alexander does not belong to the kind of educators whom Dewey identifies, neither does he quite belong with the physicians. This is clear from Dewey's assertion that knowledge of the internal processes and the way they work together is a prerequisite to



knowledge of interaction with the environment in an adequate way, listing those processes in a way which indicated technical knowledge which we know (and which Dewey by this time knew) that Alexander did not have.¹⁰⁴ The telling sentence that follows reveals the point which we have been seeking:

We cannot be scientific save as we seek for the physiological, the physical factor in every emotional, intellectual and volitional experience (p. 827).

Whatever Dewey meant enen, calling himself a layman, he wrote in 1918: "Mr. Alexander has developed a definite procedure, based upon a scientific knowledge of the organism,"¹⁰⁵ he was careful not to put it thus ambiguously again.

The position which Alexander seems to occupy in Dewey's sketch of the method by which the requisite new knowledge was to be sought and put into practice now seems to be discernible, and with it also the tension to which we have referred. Alexander was an educator, though not of the regrettable type which fails to take advantage of its opportunities for improving living situations.¹⁰⁶ But neither was he equipped, as were the physicians at least in larger measure, with the technical knowledge which Dewey now saw as a necessary instrument for developing and applying Alexander's method. We need not read this into the text of the address we have just considered, for it was precisely at this time that the Foundati n earlier mentioned was, largely at Dewey's instance, attempting to establish a working liaicon between the Alexanders and men of science.¹⁰⁷ We also know that F. M. Alexander was convinced that such a collaboration



could contribute nothing to his own work, except perhaps recognition and explanation of what he had already accomplished. For Dewey, scientific implementation was a necessity. For Alexander it was either useless or impossible, and at this time he had what amounted to a monopoly of the teaching of his technique. The resulting impasse in regard to the amplification and spread of this technique, the importance of which Dewey had declared so many times, was a source of concern to the latter. Here is the tension at the practical level.

We must leave it to those more skilled in the intricacies of Dewey's thought to explore the question of how the above dilemma might be resolved. Our purpose has been simply to show that the association between Dewey and Alexander was an important one for its effects, not only on Dewey's physical coordination -- improved posture. breathing, and the like--but also for its effects on his philosophical thinking. From both external and internal evidence, it has appeared that Dewey was much concerned with certain doctrines which he considered verified in Alexander's theory and its results, notably those of the unreliability of sense perception and of the existence of a physiological principle of psycho-physical coordination. There were also derivative problems about the conditions under which ends could be achieved, and about the verifiability in the public. scientific sense, of Alexander's basic concept of the primary control and its consequent "new" type of sensory experience and knowledge. To what extent Dewey felt that he had arrived at a solution of these problems



is not clear. The records which bear the latest dates indicate that his efforts were still directed at providing effective conditions for more thorough and controlled inquiry into Alexander's work.

The nature of the effects of Dewey's association with the Alexanders, as these effects are discernible in his development during the period we have examined, have been set forth in a general way in this thesis. To show in detail the manner and the degree in which Dewey's theories of mind-body, of the coordination of the elements of the self, and of the place of ideas in inhibition and control of overt action were specifically affected would be another matter. The writer is convinced that future research will make it possible to give more concrete answers to these questions. But he is equally convinced that such concrete answers cannot be given until more is known of the "extra-intellectual reference" of Dewey's intellectual development. At all events, it is clear that a significant vein in Dewey's thought awaits further exploration.

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NOTES

CHAPTERS I - III

- 1 Jane Dewey, ed., ' Biography of John Dewey,' in <u>The Philosophy</u> of John Dewey, ed. P. A. Schilpp (Evanston, Illinois, 1939), pp. 44-45.
- 2 Ibid., p. 44.
- 3 John Dewey, 'Introduction,' <u>Constructive Conscious Control of</u> the <u>Individual</u>, by F. Matthias Alexander (New York and London, 1923). The edition used for this thesis is the 8th ed. (Bexley, Kent, 1946). The quotation is from p. xxv of this edition. Hereafter this work will be cited in the notes as CCCI.
- 4 CCCI, p. xxiv.
- 5 In the order of their publication, Alexander's first three books are, <u>Man's Supreme Inheritance</u> (New York and London, 1910; 2nd ed. New York and London, 1918), CCCI (see note 3, above), and The Use of the Self (New York and London, 1932). In this thesis <u>Man's Supreme Inheritance</u> has been quoted from the 4th ed. (Bexley, Kent, 1957), and will be cited in the notes as MSI. For <u>The Use of the Self</u>, the 3rd ed. (Bexley, Kent, 1946) has been used, and will be cited hereafter as UOS.
- 6 These are: (1) <u>Human Nature and Conduct</u> (New York, 1930), p.28; p.35; (2) 'Reply to a Reviewer,' <u>New Republic</u>, XV (May 11, 1918), 55; (3) 'A Sick World,' <u>New Republic</u>, XXXIII (Jan. 24, 1923), 217-218; (4) <u>Experience and Nature</u> (New York, 1929), p.296, n.; p. 302, n.; (5) 'Biography of John Dewey' (see note 1, above), pp. 44-45.
- 7 Morton G. White, The Origins of Dewey's Instrumentalism (New York, 1943), p. 149: "(This) essay has never ranged beyond the purely intellectual aspects of Dewey's development, and therefore it presents no systematic study of the changes which took place in Dewey's environment. The belief that such an extra-intellectual reference is necessary for the explanation of intellectual development is, of course, a hypothesis not to be argued here. Dewey himself has indicated that books were not the only things that made him change his views, and that men and events had a share not to be discounted."



Dr. White refers to such remarks of Dewey as: "Upon the whole, the forces that have influenced me have come from persons and from situations more than from books---not that I have not, I hope, learned a great deal from philosophical writings, but that what I have learned from them has been technical in comparison with what I have been forced to think upon and about because of some experience in which I found myself entangled." John Dewey, "From Absolutism to Experimentalism," in Contemporary American Philosophy, edd. G. P. Adams and W. P. Montague (New York, 1930), II, 22.

8 Considerable good fortune has been enjoyed by the writer in the assistance and interest of Mrs. John Dewey (herself a pupil of A. R. Alexander), Mr. Beaumont Alexander, now president of The Alexander Foundation established in London by his brother, F. M. Alexander, of Dr. Frank Pierce Jones of Tufts University, who for ten years worked on important scientific aspects of Alexander's principles at Dewey's suggestion and with his constant encouragement, and who since Dewey's death has continued these laboratory investigations with the assistance of the United States Department of Public Health.

Twenty-two letters which Dewey wrote to various people concerning the Alexanders and their work have so far come to hand. Of all of these but five, the writer has seen the originals, and in some cases possesses photostats; the five exceptions are four copies and one original letter provided by Mr. Beaumont Alexander from the files of The Alexander Foundation in London. In addition to these, some fifty letters have been received from people associated with these men, supplemented in many cases by conversations and conferences with their writers. Some, as in the case of Dr. Jones and of Dr. Wilfrid Barlow, at one time assistant director of the Alexander Foundation in London, later of the staff of the Department of Physical Medicine at Middlesex Hospital, London, and of Dr. Raymond A. Dart, of the University of the Witwatersrand, Johannesburg, South Africa, have also furnished reprints of their studies bearing on the Alexander technique. Much printed material which supplements the books of Alexander was supplied by Mr. Beaumont Alexander; some also was sent by Mrs. Philomene Dailey Barr, president and director of the Alexander Foundation at Media, Pennsylvania. Mr. A. Rugg-Gunn, Harley Street surgeon and pupil of the Alexanders, very kindly promised galley sheets of his forthcoming book on the Alexander Technique, but these were not yet available at the time this thesis was prepared. A book on the technique is also being prepared by Miss Lulie Westfeldt, of New York, but none of her material was made available to the writer. These latter lacunae, however, do not disturb the



position of the present study, since they are reported by their authors to deal only with the Alexander side of our problem, and—in the case of Mr. Rugg-Gunn—only incidentally with Dewey. A later and fuller study of which this thesis is merely the ground plan, will have to consider these and other matters here omitted.

- 9 School and Society, IVII (January 1943), 1-4.
- 10 Ibid., p. l, n. l. On October 5, 1942, Dewey wrote to Jones: "I have read your paper with much interest. I hope <u>School and</u> <u>Society</u> will publish it. I certainly endorse all you say about my work in relation to that of the Alexanders. I am especially struck by the truth of what you say about the difference between the kind of intellectual assent to certain propositions and beliefs and the concrete vital meaning they take on after an experience of their work." The writer has seen the original of this letter.
- 11 Letter, Dewey to Turbayne, May 17, 1948. Dr. Turbayne has kindly placed this paper and Dewey's letters at the disposal of the writer.
- 12 F. P. Jones, 'A New Field For Inquiry,' privately mimeographed by the author, copyrighted January, 1948. The letter of Dewey to Jones which is prefixed to this paper is dated June 14, 1947.
- 13 Letter, Dewey to Turbayne, May 17, 1948: "Mr. Frank Jones sent an article to the quarterly of the Phi Beta Kappa for publication. They are doubtful. I'd like to send them your article ... etc." The writer has a photostat of this letter.
- 14 That is, after Experience and Nature (1929). The 'Introduction' to UOS (1932) was requested of him; the answer to Jane Dewey's question recorded in the Schilpp volume (see note 1, above) is hardly spontaneous.
- 15 This is a frequently recurring expression in all of Alexander's books. For a lengthy statement and explanation of it, see CCCI, pp. 22 ff., 'Unreliable Sensory Appreciation a Universal Defect.'
- 16 Alexander admits, with some hesitation, that some improvement can be made by those who correctly interpret his UOS and follow his directions properly, though this is a makeshift. "To anyone who accepts these points and sees the reason for keeping them in view whilst working to principle in employing the technique, I would say: "Go ahead, but remember that time is of the essence of the contract." It took me years to reach a point that can be reached



in a few weeks with the aid of any experienced teacher." UOS, "Preface to New Edition," p. ix.

- 17 See, for example, Dr. Joseph Jastrow's review of CCCI in <u>The</u> <u>Nation</u> (N.Y.), CXVIII (February 1924), 234: "The whole proceeds far more in the manner of a cult than of a scientific inquiry. The impression seems difficult to avoid that the elaborate repetitious verbal structure has been devised to give the setting of a psychological architecture for a technique ... that achieves its purpose by quite other and simpler means." Instances of this kind of criticism can be multiplied almost indefinitely. Some are noted in Wilfred Barlow, "Some Objections Answered," <u>Knowing</u> How to Stop (London, 1946), pp. 51-61.
- 18 Letter, Dewey to Turbayne, November 1, 1947: "The teacher of the Alexander re-education whom I know best and have most confidence in is Frank P. Jones. ..." The writer has a photostat of this letter.
- 19 Except where it is otherwise noted, the biographical information in this section is taken from Alexander's UOS, and the following publications: Louise Morgan, <u>Inside Yourself</u> (London, 1954); Patrick J. Macdonald, 'The F. Matthias Alexander Technique: A Short Introduction,' pamphlet issued by the F. Matthias Alexander Foundation (London, n.d.); <u>A New Technique</u> (London, 1935), anonymously issued by the same Foundation, but written under the direction of F. M. Alexander; F. P. Jones, 'The F. Matthias Alexander Technique,' in <u>Knowing How To Stop</u> (London, 1946), pp. 44-50; Michael March (Arthur F. Busch), <u>A New Way of Life: An Introducto the Work of F. Matthias Alexander</u> (London, 1946).
- 20 Reported by Ronald Searle and Kaye Webb from an interview with F. M. Alexander, in the <u>News Chronicle</u> (London, February 26, 1953), in the column, 'People Worth Meeting.' "He was not a strong child and was allowed to grow up fairly wild. 'I was turned out of one school, very politely, for asking too many questions.'"
- 21 A New Technique (see note 19, above), p. 7.
- 22 'Particulars of the History and Development of the F. Matthias Alexander Technique,' p.l. This is two pages of data transcribed from the files of the F. Matthias Alexander Foundation, dated 1945, and sent to the writer on November 12, 1957 by Mr. Beaumont Alexander, brother of F. M. Alexander and present director of that Foundation. Since there is no indication as to whether this document was ever published, it has been listed separately, and will be hereafter referred to as, (B. Alexander), 'Particulars.'
- 23 F. P. Jones, 'The F. Matthias Alexander Technique' (see note 19, above), p. 47.

- 25 F. P. Jones, op. cit., p. 47.
- 26 (B. Alexander), 'Particulars' (see note 22, above), p.2.
- 27 Ibid.
- 28 UOS, p.1.
- 29 Michael March, op. cit. (see note 19, above), p.7; also (B. Alexander), 'Particulars' p.2.
- 30 Michael March, op. cit., p.6.
- 31 Ibid., p. 7.
- 32 Ibid., p. 6.
- 33 Ibid., pp. 10-11. For a more extended account, see F. Matthias Alexander, The <u>Universal Constant in Living</u> (New York and London, 1941), Ch. VI, 'Physiology and Physiologists,' pp.134 ff. The The third reprint of this work (Bexhill, Kent, 1942) was used for this thesis, and will be referred to hereafter in the notes as UCL.
- 34 UCL, pp. 135-36. (See preceding note).
- 35 This paper is reprinted in MSI, Part III, pp.188 ff. Alexander heads it with the following guotation from Herbert Spencer:
 - "Whoever hesitates to utter that which he thinks the highest truth, lest it be too much in advance of the time, may assure himself by looking at his acts from an impersonal point of view. ... It is not for nothing that he has in him these sympathies with some principles and repugnance to others. He, with all his capacities, and aspirations, and beliefs, is not an accident, but a product of the time. He must remember that while he is a descendant of the past he is a parent of the future; and that his thoughts are as children born to him, which he may not carelessly let die." Lest we mistake the motive for the choice of this passage, Alexander begins his article with this introductory sentence: "It may be of interest to my readers to know that the method I have founded is the result of a practical and unique experience." This tone of a prophet with a mission, which he constantly employed, was a serious obstacle to communication with the men of science whose attention he wished to attract.
- 36 Louise Morgan, op. cit., p. 61.
- 37 Quoted in MSI, p. 179.

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- 38 The impression that the British Army revised its physical training program under the influence of Alexander's principles is given by Aldous Huxley in an article, 'A New Technique for New Soldiers,' printed in UCL, pp. 70-75. "The latest and most striking tribute paid to Mr. Alexander's ideas is the fact that physical training in the British Army is henceforward to be based upon the principles which he was the first to formulate" (p.74). Alexander himself avoids making this statement, though he presents Huxley's article with approval and thanks. Huxley supports his assertion with a reference to an exchange of letters which were published in the British Medical Journal on October 5, 1940, p. 469, and on October 19, 1940, p. 536. The first, from Dr. Andrew Murdoch, a friend and protagonist of Alexander for many years, attacks the current Army practices in physical training. Alexander is not mentioned by name, but the criticism is in obviously Alexandrian language. The second is a reply from Colonel Wand-Tetley. Inspector of Physical Training for the British Army, complaining of Dr, Murdoch's misinformation on present Army practices, and of the fact that this "indictment of Army Physical Training" has even reached the public press. In assuring Dr. Murdoch that recent revisions of the Army physical training have been in the general direction Dr. Murdoch has indicated, Colonel Wand-Tetley makes no statement that can be interpreted as meaning that he has Alexander in mind, or, for that matter, that he has ever heard of his work. Thus, although one is apparently expected to come away from a reading of UCL with the impression that Alexander's influence changed the Army program. there is no evidence available to the public which supports this as a fact. ... This type of thing is, unfortunately, not rare in Alexander's works.
- 39 MSI, 1st ed. (New York and London, 1910), p. 186. This article was reprinted only in the first edition of MSI, pp. 185-199, and does not appear in the later editions.
- 40 The quotation and its revision head this article, as follows:

"It is because the body is a machine that education is possible. Education is the formation of habits, a superinducing of an artificial organization upon the natural organization of the body; so that acts, which at first require a conscious effort, eventually become unconscious and mechanical." Huxley.

"It is because the body is a machine that (RE) education is possible. (RE) education is the formation of NEW AND CORRECT) habits, a (RE-INSTATING OF THE CORRECT) artificial organization of the body; so that ... etc" (p.185).



- 41 Robert H. Scanes-Spicer, Consulting Surgeon, Diseases of the Throat, St. Mary's Hospital, London, 'Cancers of the Throat: Some Remarks on Their Sites of Origin, Pathogeny, Early Diagnosis, and Radical Cure,' sectional paper, reprinted in <u>British Medical Journal</u>, October 16, 1909, pp. 1149-52.
- 42 F. M. Alexander, 'Breathing and Cancer,' letter published in the Pall Mall Gazette (London, October 19, 1909).
- 43 Sir Henry Irving, 'Breathing and Cancer,' letter published in the <u>Pall</u> <u>Mall Gazette</u> (London, October 21, 1909).
- 44 Why We Breathe Incorrectly' (London, November 1909). Quoted in MSI, pp. 88-89.
- 45 See note 5, above.
- 46 MSI, pp. xiv-xv.
- 47 See MSI, 2nd ed., p. 209. Here, in the Index, s.v. 'Evolution,' Alexander gives twenty-five references to his text, about half of which appeared in the first edition.
- 48 MSI, p. 18; p. 23; p. 26-27, etc. Alexander is not always clear on the point, at least in details, but his general position is consistent in respect to the unity of man in his activities: "These writings (sc. recent works on control of the mind) exhibit, and have always exhibited, the fallacy of considering the mental and physical as in some sense antitheses which are opposed to each other and make war. whereas in my opinion the two must be considered entirely interdependent, and even more closely knit than is implied by such a phrase" (p.26-27). His intention, however, is to stay clear of speculative philosophy: "Before we attempt any exact definition of the subconscious self we must have a clearer comprehension of the terms "will", "mind," and "matter," which may or may not be different aspects of one and the same force. More than two thousand years of philosophy have left the metaphysicians still vaguely speculating as to the relations of these three essentials, and personally, I am not very hopeful of any solution from this source. The investigation, though still in its infancy in this form, has taken the shape of an exact science, and it is to that science of psychology as now understood that I look to the elucidation of many difficult problems in the future. Without touching on the uncertain ground of speculative philosophy, I will try. however, to be as definite as may be with regard to my conception of the subconscious self" (p.22).


- 49 Ibid., p. 17-18: "It may seem strange that one should look to any such formally organized science as modern psychology, to a science that is working in a laboratory with mechanical appliances, for any elucidation of a question which has for so long been regarded as strictly within the domain of the priest. But science, as Tyndall said, is only another name for common sense, and a little consideration of the postulate I have insisted upon-namely, the growth and progress of intellectual control-demands that this admirable quality of common sense or reason should be applied to the elucidation of this all-important problem. Unhappily, psychology, from which we hope so much, is as yet in its infancy, and the few attempts that have been made, such as those of the late Professor Munsterberg, to apply the theories of the laboratory and the classroom to the practical work of the world, cannot be said to have produced any results worth considering. In any case I must transcend the present limits of academic psychology in this consideration of the self" (pp. 17-18). The second and following editions read "subconscious" instead of the final word, "self."
- 50 See note 5, above.
- 51 (B. Alexander), "Particulars," p. 2. This information was also offered independently to the writer in letters from Miss Irene Tasker (June 28, 1958), and Miss Jane Dewey (March 4, 1958). Both Miss Tasker and Miss Dewey were in constant touch with Alexander during this period.
- 52 UOS, pp. 82-83; p. 89. Also (B. Alexander), 'Particulars,' p. 2.
- 53 (B. Alexander), 'Particulars,' p. 2.
- 54 UOS, pp. 84-89.
- 55 He made a brief visit to the United States in 1929, however. A letter of Mr. Beaumont Alexander to the writer (May 30, 1958) contains the following observation: "F. M. attended Dewey's Luncheon on the occasion of his 70th Birthday at the Astor Hotel on Saturday October 19th 1929. James Rowland Angell, President of Yale University, was Chairman, and addresses were made by Jane Addams and James Harvey Robinson."
- 56 (B. Alexander), 'Particulars,' p. 2.
- 57 See note 5, above.
- 58 See note 33, above.
- 59 (E. Jokl), 'Quackery Versus Physical Education,' <u>Manpower</u> (Pretoria, S. A.), II, No. 2 (March 1944), 2-45. This editorial is not signed, but was later identified as Jokl's in connection with the libel action.
- 60 A summary of the results of the trial is given by Wilfred Barlow, 'The Alexander Libel Action,' Lancet, July 1, 1950, 26-37.



- 61 Data taken from letters of Mr. Beaumont Alexander to the writer, September 9, 1957 and October 8, 1957.
- 62 See below, Cahpter IV, 1.
- 63 Dewey had read the first edition of MSI at some time before he began taking lessons with Alexander, and before he wrote the 'Introductory Word' to the American (1918) edition. See the letter quoted on p. 129, below.
- 64 Joseph Ratner, 'Dewey's Conception of Philosophy,' in <u>The Philosophy</u> of John Dewey, ed. P. A. Schilpp (Evanston, Illinois, 1939), pp. 49-73. This volume will be referred to in the notes hereafter as Schilpp.
- 65 See, for example, the letter quoted in UOS, p. 87, in which the following sentence is found: "We realize that the technique you have to impart, being at one and the same time a very advanced craft and a very subtle philosophy, demands special qualities of mind and a certain natural aptitude of body to practice it with success." The letter is signed by seven distinguished physicians. One of them, Mr. Rugg-Gurn, wrote in a letter to the writer (October 29, 1957), concerning his forthcoming book, "There are eleven chapters including the introduction, and the last is termed 'The Philosophy of a Technique.'"
- 66 CCCI, p. xxiv.
- 67 See below, Chapter V, pp. 145ff. See also <u>Democracy and Education</u> (New York, 1923), pp. 393-94; <u>Reconstruction in Philosophy</u> (New York, 1920), pp. 95-96 and <u>passim</u>; <u>Logic</u> (New York, 1938), Chapter IV; 'Unity of Science as a Social Problem,' in <u>International Encyclopedia of</u> <u>Unified Science</u>, ed. O. Neurath et al. (Chicago, 1938), Vol. 1, No. 1, 29-38.
- 68 <u>Reconstruction in Philosophy</u> (New York, 1920). The edition used for this thesis was the enlarged edition published by the Beacon Press (Boston, 1948), in which the pagination for this quotation is pp. 95-96.
- 69 CCCI, p. xxvi.
- 70 UCL, pp. 136-37.
- 71 UCL, p. 10.
- 72 Loc. cit., n.
- 73 UOS, p. 6. Chapter I of this work, 'Evolution of a Technique,' pp. 1-25, describes in detail the steps of Alexander's discovery.



- 74 Ibid., p. 7.
- 75 Ibid., p. 8.
- 76 Ibid., p. 9.
- 77 Ibid., p. 10.
- 78 Ibid.
- 79 Ibid., pp. 11-13.
- 80 John Dewey, <u>Human Nature and Conduct</u> (New York, 1922). The edition used for this thesis was the Modern Library Edition (New York, 1930), and the reference is to pp. 27-28 of that edition.
- 81 UOS, p. 12.
- 82 Ibid., p. 13, n.
- 83 The conception of "ideo-motor action" was developed by William James, in <u>The Principles of Psychology</u> (New York, 1890), II, 522-528. The notion is summed up in these words: "We may then lay it down for certain that every representation of a movement awakens in some degree the actual movement which is its object; and awakens it in a maximum degree whenever it is not kept from so doing by an antagonistic representation present to the mind. (James, op. cit., II, 526.) Alexander adopted this notion from James as early as 1908, in which year the expression "ideo-motor" in this sense appears in Alexander's "Re-Education of the Kinaesthetic Systems," reprinted in MSI, 1st ed. (1910), p. 188. The term also appears in the text of MSI, 1st ed., and in the 2nd ed. (1918) it is found in the Index.

Alexander himself attributed his knowledge of this doctrine--or at least of the term--to James's <u>Principles</u>. Dr. Horace Kallen, who knew Alexander well after 1918, has said: "He (Alexander) read William James's great work and was struck by what James had to say about the 'ideo-motor function'--that is, the dynamics of conscious attitude and image in giving shape and direction to posture and movement of the muscles of the body" (Letter, Dr. Horace Kallen to the writer, February 20, 1958). ... "The relationship of Alexander to James I have no other information about than the remarks Alexander had made to me about his having drawn the concept of 'ideo-motor action' from James's work")Letter, Dr. Kallen to the writer, February 27, 1958.)

84 UOS, p. 16.



- 85 Ibid., p. 11.
- 86 Ibid., p. 24.
- 87 Ibid., p. 22.
- 88 Ibid., p. 18.
- 89 The shortest and clearest account of this of which the writer knows is to be found in UCL, pp. 14-15.
- 90 "Stop and Think!" is a slogan which the Alexandrians adopted to express the necessity of inhibition. This explains, for example, the title of the collection of essays, <u>Knowing How To Stop</u> (London, 1946) to which we have referred. Dewey uses the expression in a way that suggests that he is thinking of inhibition, occasionally. See <u>Human Nature and Conduct</u>, p. 197, as a random sample of this.
- 91 UOS, pp. 24; 26-27.
- 92 Ibid., p. 24.
- 93 Ibid.
- 94 For posture or poise as a dynamic quality, as opposed to a static relation of the parts of the body, see Raymond A. Dart, 'The Attainment of Poise,' <u>South African Medical Journal</u> (February 8, 1947), 1-46. Dr. Dart and his children were pupils of Miss Irene Tasker in 1943, during her stay in South Africa. The account of the favorable results of the Alexander technique experienced by Dr. Dart and his children is found on pp. 15-16.
- 95 "One of my greatest handicaps was that after I got the lightness sensory effect I would try to keep it instead of the means whereby. The point that "naturally" we have the required organic mechanism and that the lessons are but a recovering what we have lost by our own misuse would I think stand somewhat greater emphasis." Dewey to F. P. Jones, June 14, 1947, letter prefixed to F. P. Jones, "A New Field For Inquiry," copyright 1948. This is a privately published paper.
- 96 See UOS, p. 19, where Alexander quotes Dewey on this point.
- 97 This is clearly the meaning of Dewey's statements: "Mr. Alexander's work ... proves that there are certain basic, central, organic habits and attitudes which condition every act we perform, every use we make of ourselves." 'Introduction' to UOS, p. xxi. Also: "(Conscious-ness) forms, as he has so clearly shown, our standard of rightness. It influences our every observation, interpretation and judgment. It



is the one factor which enters into our every act and thought." "Introduction" to CCCI, p. xxi. These remarks are applied to our "perverted" sensory consciousness, but the same would apply to re-educated sensory consciousness.

- 98 Dewey, 'Introduction' to UOS, p. xix.
- 99 Ibid., p. xx
- 100 Ibid.
- 101 See <u>Experience and Nature</u>, pp. 301-02, where the discussion is hardly being carried on in experimental terms. This matter is treated in Vahpter V, below.
- 102 UOS, p. ix.
- 103 CCCI, p. 2.
- 104 This is a favorite expression of Alexander's, used to describe this conflict. See MSI, pp. 8; 56; 112. Dewey also uses it in the same way. See Human Nature and Conduct, pp. 2; 99; 171.
- 105 MSI, p. 54. See Dewey, Experience and Nature (1929), pp. 295-96.
- 106 MSI, p. vii.
- 107 Ibid., p. 108.
- 103 Ibid., p. vii.
- 109 Ibid., p. 109; p. 119. See Dewey, 'Introduction' to CCCI, p. xxii: "The perversion of our sensory consciousness has gone so far that we lack criteria for judging the doctrines and methods that profess to deal with the individual human being."
- 110 This is also a constant theme with Alexander. See MSI, pp. 52-53; 180 ff., and the Index, s. v. "physical-culture" and "physical exercises, mechanical."
- 111 See the rather amusing application of this notion to the Dacon-Shakespeare controversy in MSI, p. 49 ff.
- 112 Alexander finds a good sense for this term. In MSI, p. 137, distinguishing intuition from instinct, he says: "Intuition is the result of the <u>conscious</u> reasoned psycho-physical experiences during the processes of our evolution."



- 113 See MII, p. 70, for one comple of this.
- 114 Alexander is somewhat vague about when, in the history of the race, this "perversion" became common among civilized mem. Sometimes it is placed at three or four hundred years ago (NSI, p. 71), sometimes it is said to date back a hundred years or so (NSI, p. 3), sometimes it appears to have come about chiefly in the last generation (NSI, p. 72; p. 61; p. 93.)
- 115 U03, p. 4.
- 116 HBI, pp. 24; 33; 175.
- 117 Ibid., p. vii.
- 118 Ibid., p. 119. See also p. 5.
- 119 "It is my carnest belief that the intelligent recognition of the principles essential to guidance by conscious control are essential to the full mental and physical development of the human race. Due consideration will convince even the skeptical that if manded if to evolve to the higher stages of mental and physical perfection, he must be guided by these principles. They alone will bring men and wamen of today to the highest state of well-being.... " MBI. p. 107.

Newsy comes rather close to saying the same thing. See his "Introduction" to CCCI, p. 200011. Also: "It (Alexander's method) bears the same relation to education that education itself bears to all other human activities. ... It contains in my judgment the promise and potentiality of the new direction that is needed in all education." "Introduction" to UCS, p. 201.

- 120 MBI, Chapter VIII, pp. 95 ff.
- 121 UCL, pp. 238-42.
- 122 HBI, p. 43.
- 123 Magnus's work does not seem to have been generally known in England until he gave the Groomian Lecture (1925) and the Cameron Lectures (1926). See below, p. 135.
- 124 See balar, pp. 135-36.
- 125 UCL, p. 118 (definition); pp. 130-33.



- 126 For these expressions see especially MSI, p. 54 ff. On page 58 (ibid.) Alexander seems to be suggesting that he borrowed the term "sense register" ("registration" from mechanical terminology: "This point is the question of the storing and reserving of energy, and, to use a phrase which has a mechanical equivalent, the registration of tension." The writer has not found the expression "sense register" in Dewey's works earlier than his meeting with Alexander, so that, along with its variants, when it does appear there it can be taken as a sign of the presence of Alexandrian influence.
- 127 These, in Alexander's idiomatic terms, are (1) head forward and up; (2) relax the neck; (3) lengthen the spine; (4) widen the back. See CCCI, pp. 108 ff. for an explanation of these terms. In this 'Illustration' there are also certain other subsidiary "orders" included, but these four are the fundamental ones.
- 128 Letter, Dewey to F. P. Jones, May 10, 1947. Through the kindness of Dr. Jones the writer has seen the original of this letter, and of all other letters which Dewey wrote to him concerning Alexander's work. A photostat of the letter quoted here was sent to the writer by Dr. Jones.
- 129 See, for example, UCL, p. 139. Speaking of withholding of giving consent to performing an act, he says: "It means either refraining from, or giving consent to, sending the messages to the muscles to be employed in accordance with the subject's manner of employing them, this in turn being determined by his manner of employing the primary control. ... Most people send messages which initiate overaction of certain groups of muscles ... " (ibid.)
- 130 This anecdote comes to the writer from Mrs. John Dewey and, independently, from Dr. Frank P. Jones.
- 131 J. J. Findlay, professor of education at the University of Manchester, says in his introduction to <u>The School and the Child</u> (1907): "I have ... taken occasion, with the approval of Professor Dewey, to put together a few of his contributions which have not been published in this country, and which would not come within the reach of English teachers unless brought out in an inexpensive volume of this kind. ... I understand that when Professor Dewey left Chicago a year ago to take the Chair of Philosophy in Columbia, this school changed its character. hence it may not be the intention of Professor Dewey or of his late colleagues to republish these papers, although the entire

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publication is of unique interest to students of education" (pp. 8-9) "I may add that this little volume may grow to larger proportions if the desire is expressed; a second series of Dewey's contributions will be forthcoming if the publishers find that the first is appreciated by English readers" (pp. 9-10). Findlay begins his introduction to the promised second volume, <u>Educational Essays</u> (1910) with the observation: "This second volume appears in pursuance of the hope held out in the Introduction to its predecessor—that a further installment from the writings of Professor Dewey would be offered to English teachers, if the first volume was appreciated." The tone of both these introductions is that of one presenting a new and unfamiliar figure to the public.

- 132 The School and Society Chicago, (1900) contains nothing of special interest to Alexander's ideas. The other two volumes and their contents are: The School and the Child, edited by J. J. Findlay, (London, 1907). This contains 'The Child and the Curriculum' (1902), and eight of the nine monographs in The Elementary School Record (1900). Educational Essays by John Dewey, ed. J. J. Findlay, (London, 1910), contains 'Ethical Principles Underlying Education (1897), 'Interest in Relation to Training of the Will (1896, rev. 1899), and Psychology and Social Practice' (1900).
- 133 John Dewey, <u>Psychology</u> (New York, 1886). The 3rd edition (1891) was consulted for this thesis. The Preface expressly identifies it as "expressly for use in class-room instruction" (p. iii).
- 134 See note 131, above. The list of Dewey's works is on p. 128 of The School and the Child.
- 135 The Influence of Darwin on Philosophy and Other Essays (Boston and London, 1910); How We Think (New York and London, 1910).
- 136 For the information contained in this and the following three paragraphs the writer is indebted to Miss Irene Tasker (letter, June 28, 1957), and Miss Margaret Naumburg (letter, December 6, 1957). Miss Naumburg also kindly found time for a conference with the writer on November 7, 1957, and later made corrections on the rough draft of these four paragraphs.
- 137 An account of the founding of this School is to be found in Margaret Naumburg, <u>The Child and the World</u> (New York, 1928), unnumbered page following title page. Dialogue 13 in this book, 'A University Professor and the Director,' pp. 248-71, is a sympathetic and informed discussion of Alexander's method.



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- 138 The writer owes this account to Dr. Frank P. Jones. It is Dewey's account to him in answer to Jones's questions. Since this was written, it has been substantiated by Professor Mitchell's wife, Mrs. Lucy Sprague Mitchell (letter to writer, May 19, 1958).
- 139 The 'Platform of Six Realists' and Perry's 'The Ego-Centric Predicament' are in the Journal of Philosophy, VII (1910). Albert Schintz published Professor Dewey's Pragmatism' in the same Journal, V (1908), 617-28, resulting in a series of exchanges for the next two years in this paper and the <u>Philosophical Review</u>.
- 140 See J. S. Moore, 'The System of Values,' <u>Journal of Philosophy</u>, VII (1910), 282-291. The first sentence is: "The year 1909 was marked by the birth of a new philosophical discipline---the philosophy of values."
- 141 See Journal of Philosophy, X (1913), 167-68, 'Subject of Discussion for the next Meeting of the American Philosophical Association.'
- 142 John Dewey, ibid., 268-69, 'The Problem of Values.'
- 143 John Dewey, Review of Hugo Hunsterberg's The Eternal Values (Boston and N. Y., 1909), in <u>Philosophical Review</u>, XIX (1910), 188-92.
- 144 MSI first edition (1910), p. 49, head-piece for Ch. IV of Part I, where it is preceded by a short couplet from Shelley. In the second (1918) and later editions only the Shelley quotation remains. See p. 26 of the 1957 edition.
- 145 John Dewey, 'Ethical Principles Underlying Education,' <u>Publications</u> of the National Herbart Society (Chicago, 1897), p. 31.
- 146 See note 132, above, for complete reference.
- 147 Educational Essays, 'Introduction,' p. 17.
- 148 Ibid., 'Ethical Principles,' p. 68.
- 149 John Dewey, Moral Principles in Education (Boston, 1909).
- 150 Op. cit., p. 54.
- 151 See the first quotation on p. 1 of this thesis. See also UOS, 'Introduction': "And so I verified in personal experience all that Mr. Alexander says about the unity of the physical and the psychical in the psychophysical ... [and] about the unconditional necessity of inhibition of customary acts, ... " (p. xx).

- 152 <u>How We Think</u> (Boston, 1910), 2nd ed., 1933. The quotation is from the 1st ed., p. 154, (2nd ed. p. 199).
- 153 Op. cit., p. 155, (2nd ed. p. 200).
- 154 Ibid., p. 155, but not in 2nd. ed.
- 155 Op. cit., 2nd ed., p. 201, but not in 1st. ed.
- 156 See note 151, above.
- 157 <u>How We Think</u>, 2nd. ed. (1933), p. 201: "But while this act is, under some circumstances, of practical value, the logical value of abstraction consists in seizing upon some quality or relation not previously grasped at all, making it stand out." Inhibition, on the other hand, is not only of practical value, but is an "unconditional necessity."
- 158 See, for example, the 1907 article, 'Respiratory Re-education,' where Alexander speaks of the technique as necessary for the education of children (MSI, p. 193). This is a constantly recurring theme in his writings.
- 159 See MSI, pp. 87-90, and note 38, above.
- 160 MSI, p. 74: "And in America the mischief is going farther still. So-called 'free' schools have been instituted...." See also CCCI, pp. 153-154. Dewey, in his 'Introductory Word' to MSI, p. xxi, says: "One gathers that in this country Mr. Alexander has made the acquaintance of an extremely rare type of "self-expressive" school, ..."
- 161 Although these two works represent a turning point in Dewey's thought, their specialized, technical character kept them from wide circulation among the general public. The <u>Studies</u> were not published in England until 1909, by T. Fisher Unwin.
- 162 These associated with Alexander in his work have declared privately that Alexander was influenced little, if at all, by Dewey's ideas. "My wife is the only Alexander now teaching the technique, and she agrees with me that Alexander took very little interest in Dewey's ideas—Miss Tasker in a recent conversation confirms this" (letter, Dr. Wilfred Barlow to the writer, June 2, 1957). Mrs. Barlow is a niece of the Alexanders. "It was a pity that (Alexander) was not able to learn as much from Dewey as Dewey learned from him" (letter, Dr. Frank P. Jones to the writer, May 18th, 1957). "I never noted any interest in Alexander, when I talked with him, about Dewey's or anyone else's books or ideas" (letter, Miss Margaret Naumburg to the writer, December 6, 1957).

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- 163 Max Eastman, <u>Herces I Have Known</u> (New York, 1942). Chapter 12, 'The Herc As Teacher' (pp. 275-321), is a portrait of Dewey.
- 164 Op. cit., p. 267.
- 165 Ibid., p. 268.
- 166 Op. cit., pp. 312-14.
- 167 James Harvey Robinson, 'The Philosopher's Stone,' Atlantic Monthly, CXXIII (April 1919), 474-81. Professor Richard Morse Hodge, of Columbia University and Teachers' College, also wrote an article-length review of MSI in <u>The New York Times Book</u> <u>Review</u>, May 5, 1918, p. 211.
- 168 J. H. Robinson, op. cit., 474, n.
- 169 Ibid., 475.
- 170 Ibid., 476.
- 171 "I envy, up to a certain point, those who can write their intellectual biography in a unified pattern, woven out of a few distinctly discernible strands of interest and influence." Dewey, "From Absolutism to Experimentalism," in <u>Contemporary American</u> Philosophy, edd. G. P. Adams and Wm. P. Montague (New York, 1930), II, 22.
- 172 See Joseph Ratner, Intelligence in the Modern World (New York, pp. 15-17.
- 173 Joseph Ratner, 'Dewey's Conception of Philosophy,' in Schilpp (see note 64, above), p. 67.
- 174 Dewey, 'Introductory Word' to MSI, p. xix.
- 175 Ratner, 'Dewey's Conception of Philosophy,' in Schilpp, p. 61.
- 176 See Ratner, op. cit., p. 73.
- 177 "Inconsistencies and shifts have taken place; the most I can claim is that I have moved fairly steadily in one direction." Dewey, "Experience, Knowledge and Value," <u>Schilpp</u>, p. 520.
- 178 William Savery, 'The Significance of Dewey's Philosophy,' <u>Schilpp</u>, p. 499.

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- 179 Dewey, 'From Absolutism to Experimentalism' (see note 171, above), 20 ff; 'Experience, Knowledge and Value,' <u>Schlipp</u>, p. 520; p. 564. Ratner, <u>Intelligence in the Modern World</u>, p. 15; 'Dewey's Conception of Philosophy,' <u>Schilpp</u>, p.61; p. 67.
- 180 For a brief account of Watson's early work, see Edwin G. Boring. <u>A History of Experimental Psychology</u>, 2nd ed. (New York, 1950), pp. 641 ff.

Watson lectured at Columbia University in 1912, and again in 1913. In December, 1913, Dewey read a paper before a joint meeting of the American Philosophical and American Psychological Associations at New Haven, entitled, 'Psychological Doctrine and Philosophical Teaching,' which was later published in the <u>Journal of Philosophy</u>, XI (1914), 505-511. Dewey's criticism of behaviorism on this occasion, aimed at Watson's position, center around its "subcutaneous" point of view and its disregard for the social aspect of behavior.

- 181 Ratner, 'Dewey's Conception of Philosophy,' Schilpp, p. 61.
- 182 Gordon W. Allport, 'Dewey's Individual and Social Psychology,' Schilpp, p. 270.
- 183 Loc. cit., n. 15.
- 184 The following notice is found in the Annual Report of the President of Stanford University for the academic year ending August 31, 1918 (Stanford, California, 1918), p. 121:

"The fifth series of the Raymond Fred West Lectures on Immortality, Human Conduct, and Human Destiny, was given by Dr. John Dewey, professor of philosophy at Columbia University. The lectures were given on three consecutive evenings, beginning May 28th. The general subject of the addresses was 'Factors in Human Conduct'. The specific subjects of the three lectures were 'Significance of Habit,' Significance of Instinct,' 'Significance of Reflection'. These addresses were among the most valuable and stimulating contributions made during the year to the intellectual life of the University."

For this reference the writer is indebtdd to Dean Philip H. Rhinelander, of the School of Humanities and Sciences, Stanford University.

185 There were eight lectures, given at the Imperial University of Tokyo in February and March, 1919, under the general title, "Problems of Philosophic Reconstruction." An account of these lectures, • •

together with a summary of the content of each, is printed in the Journal of Philosophy, XVI (1919), 357-64.

- 186 Essays in Excerimental Logic (Chicago, 1916). This is a collection of previously published essays, from 1903 to the date of the publication of the volume. The Introduction is an independent essay (pp. 1-74), and was written for this volume. There is another brief note, "An Added Note As to the "Practical"" (pp. 330-334), which refers to the preceding article, but which was apparently written at about the time the volume was published.
- 187 See below, pp. 122 ff.
- 188 "The technique of this process is stated in the book of Mr. Alexander already referred to (on p. 28, n.), and the theoretical statement given is borrowed from Mr. Alexander's analysis." <u>Human Nature and Conduct</u>, p. 35, n.
- 189 Ratner, 'Dewey's Conception of Philosophy,' Schilpp, p. 61.
- 190 Dewey, 'From Absolutism to Experimentalism,' in <u>Contemporary</u> <u>American Philosophy</u>, II, 13-27. See note 7, above, for complete reference to this volume.
- 191 Dewey, op. cit., 21-22.
- 192 Ibid., 22.
- 193 Ibid.
- 194 Ibid., 23.
- 195 Dewey, 'The Development of American Pragmatism,' <u>Philosophy and</u> <u>Civilization</u> (New York, 1931), pp. 26 ff. This essay was first printed in English in 1925, but had been published in French in 19221 See Schilpp, p. 653, for particulars of this.
- 196 'From Absolutism to Experimentalism,' p. 24.
- 197 Ibid., pp. 24-25.
- 198 Ibid., pp. 25-26.



- 1 MSI, p. 33.
- 2 The expression "civil war" in this connection is a favorite with Alexander. See MSI, p. 8; p. 56; p. 122. Dewey seems attracted to it, as well. See <u>Human Nature and Conduct</u>, p. 2; p. 99; p. 171.
- 3 MSI, pp. 19-20. Since the quotations which follow on this and on the next four pages of the text are all taken from MSI, and in large part from the same chapter, the page references have been included with the quotation in order to obviate constant reference to the notes.
- 4 "I should, from the start, have systematically distinguished between knowledge as the outcome of special inquiries (undertaken because of the presence of problems) and intelligence as the product and expression of cumulative funding of the meanings reached in these special cases. Nevertheless, there are in my earlier writings many indications of the distinction and the role it plays, as well as references to the principle of organic habit as the physical agency by which the transition from one to the other is effected" ('Experience, Knowledge and Value,' Schilpp, p. 521). "If I had uniformly made it clear that attained knowledge produces meanings and that these meanings are capable of being separated from the special cases of knowledge in which they originally appear and of being incorporated and funded cumulatively in habits so as to constitute mind, and to constitute intelligence when actually applied in new experiences, it is quite likely my view would have been less exposed to mis-understanding" (Ibid., p. 564).
- 5 See note 114 to Chapters I-III, above.
- 6 See note 126 to Chapters I-III, above.
- 7 ISI, p. 41.
- 8 Op. cit. p. 93; pp. 70-71.
- 9 Op. cit. p. 40.
- 10 Op. cit. p. 19.
- 11 Op. cit. pp. 68-69.



- 13 MSI, p. 30.
- 14 Ibid.
- 15 Ibid., p. 31
- 16 Human Nature and Conduct (New York, 1930), p. 29.
- 17 MSI, pp. 120-42.
- 18 Op. cit., p. 42: "This brings us to the crux of my contentions regarding conscious guidance and control in its wides meaningthat is, as a universal."
- 19 Op. cit., p. 120.
- 20 Op. cit., pp. 125-26. This notion of "total re-education" was undoubtedly one of the aspects of Alexander's doctrine that appealed to Dewey.
- 21 MSI, p. 120.
- 22 Ibid.
- 23 Ibid., p. 122.
- 24 Ibid.
- 25 Op. cit., pp. 31 ff.
- 26 Op. cit., p. 63.
- 27 Op. cit., pp. 122-23.
- 28 See also op. cit., p. 128.
- 29 UOS, p. ix. See note 16 to Chapters I-III, above.
- 30 MSI, p. 55. See also p. 113.
- 31 Ibid. See also p. 177.
- 32 Ibid. See also p. 86 and p. 145.

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- 33 Op. cit., pp. 136-37.
- 34 Op. cit., p. 111.
- 35 Op. cit., p. 43; p. 64; p. 137.
- 36 Op. cit., p. 149.
- 37 Op. cit., p. 138.
- 38 Op. cit., p. 44. See also p. 40; pp. 50-52.
- 39 Op. cit., p. 50; p. 128.
- 40 Op. cit., p. 40. Alexander gives examples at this point, showing that unconscious bad habits put their possessors "out of communication with their reason," in a phrase which he borrows from Emerson.

Hereafter, page numbers of quotations have been included in the text wherever it has seemed more convenient, and where there is no ambiguity.

- 41 Op. cit., p. 173. The extravagant claims for the benefits which the technique can confer did little to win the confidence of the medical profession. See MSI, pp. 52-53, mild samples of which are quoted in the immediate sequel of our text.
- 42 On this see op. cit., p. 24; p. 33; p. 113; p. 175.
- 43 Op. cit., p. 85 and p. 41. See also p. 35. This is a theme on which Aldous Huxley delights in writing variations. See, for example, his review of UCL, which appeared in the <u>Saturday</u> <u>Review of Literature</u> (October 25, 1941), and is reprinted in <u>Knowing How To Stop</u> (London, 1946), with the title "End-Gaining and Means-Whereby." Other examples from Huxley's works where Alexander is mentioned in this connection are: <u>Ends and Means</u> (London, 1937), pp. 222-24; "The Education of an Amphibian," in <u>Adonis and the Alphabet</u> (London, 1956), pp. 20-22; "The Oddest Science," Esquire, XLVII, 3 (March 1957), 34.
- 44 This exposition is set down on pp. 127 ff. of MSI, and is one of the most concentrated of Alexander's many summaries of the process.
- 45 MSI, p. 58. The complete passage is: "The desire to stiffen the neck muscles should be inhibited as a preliminary (which is not the same thing at all as a direct order to relax the muscles them-

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selves), and then the true uses of the muscular mechanism, i.e., the means of placing the body in a position of mechanical advantage, must be studied, when the work will naturally devolve on those muscles intended to carry it out, and the neck will be relaxed unconsciously. In this case, the conscious orders, by which I mean the orders given to the right muscles, are preventive orders, and the due sequence of cause and effect is maintained."

- 46 MSI, p. 181
- 47 Op. cit., pp. 114-115.
- 48 Op. cit., p. 135.
- 49 MSI, 'Preface to New Edition,' pp. vi-vii. These twelve propositions are introduced by this observation: "Here, the, are some of the important problems relating to the control of human behaviour to which the reader can find solutions in this book:"
- 50 See, for example, Huxley's title, quoted in note 43, above.
- 51 <u>Human Nature and Conduct</u> (New York, 1922), Part One, Chapter II, "Habits and Will." For this thesis the Modern Library edition (New York, 1930) has been used, as the most readily avallable, and because it included a new introductory chapter written for this edition. Pagination for reference in this section is included in the text of the thesis unless there is reason to do otherwise. The work in this edition will be hereafter cited in the notes as HNC. The expression "flank movement" in this connection appears on p. 35, in this "Alexander chapter."
- 52 "I found things which I had 'known'--in the sense of theoretical belief--in philosophy and psychology, changed into vital experiences which gave a new meaning to knowledge of them" (UOS, p. xx).
- 53 See MSI, p. 154, and also p. 57; p. 140.
- 54 See MSI, p. 54: "Does anyone set out to catch a train relying on a watch which he knows perfectly well is unreliable? Would any same person place dependence on the reading of a thermometer that he knows to be defective?"
- 55 See MSI, pp. 127-28.



- 56 See MSI, pp. 113-14: "As long as the 'end' is held in mind instead of the 'means,' the muscular act or series of acts will always be performed in accordance with the mode established by old habits. When each stage of the series essential to the 'means whereby' is correctly apprehended by the conscious mind of the subject, the old habits can be broken up, and every muscular action can be consciously directed until the new and correct guiding sensations have established the new proper habits, which in their turn become subconscious, but on a more highly evolved plane."
- 57 See pages 101-02, above.
- 58 HNC, p. 16.
- 59 "(Habit) means will," is the last sentence of the chapter. The concept of habit as <u>mind</u>, as a component of intelligence, is prominent in two articles Dewey wrote in 1917. The first is 'The Need for a Recovery of Philosophy,' in <u>Creative Intelligence</u> (New York, 1917), pp. 3-69. See especially pp. 19-21, and also pp. 67-68, from which the following quotation is taken: "This need and principle (of American philosophy), I am convinced, is the necessity of a deliberate control of policies by the method of intelligence, an intelligence which is not the faculty of intellect honored in text-books and neglected elsewhere, but which is the <u>sum-total of impulses</u>, <u>habits</u>, <u>emotions</u>, records and <u>discoveries which forecasts what is desirable and undesirable in future possibilities, and which contrive ingenicusly in behalf of imagined good</u>, "(italics added).

The other article of 1917 in which habit as mind is to the fore is 'The Need for Social Psychology,' Psychological Review, XXIV (1917), 266-277, and reprinted in <u>Characters and Events</u>, II (New York, 1929), 709-720. See in this reprint pp. 714-15; p. 717.

- 60 It seems rather curious that Dewey nowhere in HNC makes mention of any such central mechanism of integration, in view of the insistence of Alexander on the point.
- 61 See above, pp. 103-05, and HNC, pp. 33-37.
- 62 See HNC, p. 29; p. 232. "Fixed and separate ends reflect a projection of our own fixed and non-interacting habits" (p. 232).
- 63 This is the thread which runs through Part One, Chapter II, the "Alexander chapter." The opposition between routine habit and intelligence is of course not new with Dewey. A recent (relatively to this chapter) instance is Democracy and Education

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(New York, 1916), pp. 393-94. But in this case the suggestion seems to be that Alexander is pointing out the general direction in which this opposition can be done away with. In a subsequent chapter Dewey says: "The real opposition is not between reason and habit but between routine, unintelligent habit, and intelligent habit or art" (p.77).

- 64 See note 59, above. In the second of the two articles mentioned there, the social aspect of mind is also in prominence. "To form a mind out of certain instincts by selecting an environment which evokes them and directs their course; to re-form social institutions by breaking up habits and giving peculiar intensity and scope to some impulse is the problem of social control in its two phases. To describe how such changes take place is the task of social psychology stated in generalized terms." 'Need for Social Psychology,' pp. 712-13.
- 65 Chief among these was undoubtedly an influence which this thesis has not attempted to investigate, viz. that of George H. Mead. See 'Biography of John Dewey,' Schilpp, pp. 25-26, and the address which Dewey gave at Mead's funeral. This latter was published in the Journal of Philosophy, XXVIII (1931), 309-314. "Anyone who knows anything about Mr. Mead knows of his vital interest in social psychology, and in a social interpretation of life and the world. It is perhaps here that his influence is already most widely felt; I know that his ideas on this subject worked a revolution in my own thinking, though I was slow in grasping anything like its full implications. The individual mind, the conscious self, was to him the world of nature first taken up into social relations and then dissolved to form a new self which then went forth to recreate the world of nature and social institutions" (ibid., p. 313.)

CHAPTER V

- 1 See below, pp. 133 ff.
- 2 The writer has seen the following reviews: J. E. Boodin, <u>American Journal of Sociology</u>, XXIV (July 1918), 100; Richard Morse Hodge, New York Times Book Review, May 5, 1918, 15; Horace M. Kallen, <u>The Dial</u>, LXIV (June 6, 1918), 533; J. E. Oster, <u>American Political Science Review</u>, XII (November 1918), 744; and unsigned review in <u>Independent</u>, XCIII (March 1918), 470; another unsigned review in <u>The Soringfield Republican</u>, May 26, 1918, 15. In addition there are the two reviews dealt with in the text of this thesis, "R. B." (Randolph Bourne), <u>New Republic</u>, XV, 183 (May 4, 1918), 28-29, and



James Harvey Robinson, Atlantic Monthly, CXXIII (1919), 474-81.

- 3 Bourne's review and his reply to Dewey are signed only with his initials, "R. B." He was one of the editors of this journal at the time. The articles are: ". B.", 'Making Over the Body,' <u>New Republic</u>, XV, 183 (Nay 4, 1918), 28-29; John Dewey, 'Reply to a Reviewer,' ibid., 184 (May 11, 1918), 55; "R. B.", 'Other Messiahs,' ibid., 186 (May 25, 1918), 117.
- 4 "R. B.", "Making Over the Body," (see preceding note.) Since there are two pages to this review, the pagination is added the quotations in the text of the thesis.
- 5 Dewey, 'Reply to a Reviewer,' (see note 3, above.) Since this article and Bourne's reply each occupy only one page, no references are added to quotations from them where there is no ambiguity.
- 6 "R. B.", 'Other Messiahs,' p. 186. (See note 3, above.)
- 7 See note 184 to Chapters I-III, above.
- 8 MSI, p. xx.
- 9 Letter, Dewey to Alexander, November 20, 1917. The original of this letter is in the files of The Alexander Foundation, 16 Ashley Place, London S. W. 1. Mr. Beaumont Alexander kindly furnished a copy to the writer.
- 10 Dewey, letter to unidentified critic of Alexander, May 22, 1918. This letter is likewise in the files of The Alexander Foundation, but the name of the addressee has been withheld.
- 11 William James, The Principles of Psychology (New York, 1890), II, 449. The whole passage is italicized in the original.
- 12 Dewey, letter cited in note 10, above. Italics added.
- 13 UOS, p. xix.
- 14 HNC, p. 314, italics added.
- 15 Letter, Mr. Lawrence Frank to the writer, January 28, 1958.
- 16 Letter, Mr. Lawrence Frank to the writer, February 15, 1958. Cf. Alexander's citation of Mr. Frank on a similar point in UCL, p.174.



- 17 Letter, Dewey to F. P. Jones, April 15, 1957.
- 18 Letter, Dewey to Jones, June 14, 1947.
- 19 CCCI, pp. xxix-xxxii.
- 20 UOS, p. xiv.
- 21 Sir Charles Sherrington, <u>The Integrative Action of the Nervous System</u> (Cambridge, England, 1906). A new edition was prepared and issued in 1947, also by the Cambridge University Press, but the text was unaltered. The writer is indebted to Dr. Sidney Hook, of New York University, for the information that Dewey used to quote this work in his classes. Dewey also remarks that "Sherrington's classic work, <u>The Integrative Action of the Nervous System</u> marks an epoch in the development of science," in 'Body and Mind,' <u>Philosophy and Civilization</u> (New York, 1931), p. 312. This was an address given before the New York Academy of Medicine late in 1927. See <u>Schilpp</u>, p. 258.
- 22 Rudolph Magnus, Körperstellung: experimentell-physiologische Untersuchungen über die Einzelnen bei der Körperstellung in Tätigkeit tretenden Reflexe, über ihr Zusammenwirken und ihre Störungen (Berlin, 1924).
- 23 Rudolph Magnus, and A. de Kleijn, 'Die Abhängigkeit des Tonus der Extremitätenmuskeln von der Kopfstellung,' <u>Pflüger's Archiv</u>, CXLVII (1912), 455-548. The quotation is from p. 543.
- 24 Magnus, loc. cit.
- 25 Magnus, 'The Physiology of Posture,' <u>Lancet</u>, CCXI, 2 (September 18, 1926). 588.
- 26 Magnus, 'Animal Posture,' <u>Proceedings of the Royal Society of</u> London, B, XCVIII (1925), 339-53.
- 27 Reference given in note 25, above.
- 28 The <u>British Medical Journal</u>, reporting a discussion following a paper read before the Section of Neurology and Psychological Medicine at the Annual Meeting of the British Medical Association in 1923, records the contribution of Dr. Peter Macdonald as follows: "He (said that he) was going to put unorthodox views before the Section, and, in particular, was going to take the unorthodox step of recommending to the Section the study of the work of a man who was not a medical man; and he did this solely with the hope that he might interest sufficiently some members of the Section, who were

far more competent to have an opinion than he, to induce them to investigate his work. His name was F. Matthias Alexander, and Dr. Macdonald knew of his work through one of his books, <u>Man's Supreme Inheritance</u>, through another, <u>Constructive Conscious</u> <u>Control of the Individual</u>, which was at present in the press, and through his personal services to Dr. Macdonald himself and others; and he regarded his work as epoch-making," <u>British Medical Journal</u>, 1923, II, 971. There follows a lengthy account of Alexander's work.

- 29 Peter Macdonald, "Instinct and Functioning in Health and Disease," reprinted from the <u>British Medical Journal</u>, 1926, II, pp. 1221-23, in <u>Knowing How to Stop</u> (London, 1946), pp. 6-15. The quotation is from p. 11 of this reprint.
- 30 Macleod Yearsley, "Man's Future," <u>Literary Guide</u>, No. 352 (October 1925), 177-78. "It must be emphasized that the central control thus employed is that advocated by Magnus, and referred to recently by Sherrington at the Royal Society. That this simple control should have been discovered and used by Mr. Alexander thirty years ago is especially interesting ... etc." (p. 178). The reference to Sherrington's remark apparently points to the President's Anniversary Address to the Royal Society of London, A, CVII (1925), 1-14. Sherrington indeed mentions Magnus and de Kleijn (pp. 9-10), but Alexander's name is not mentioned anywhere in this Address.
- 31 See above, p. 7.
- 32 Letter, Dewey to Alexander, October 26, 1942.
- 33 Letter, Jones to Dowey, April, 1947. This quotation is from Dr. Jones's copy of his letter, which does not record the day of the month.
- 34 Letter, Dewey to Jones, June 1, 1948. The writer has seen the original of this letter.
- 35 These studies were privately published, but later Dr. Jones substituted the technique of multiple-image photography and color coding, an example of which appears in <u>Life</u>, XLIV, 7 (February 17, 1958), pp. 74-75. Dr. Jones is not credited with the plate, though its subject is his son.
- 36 Letter, Dewey to Jones, December 8, 1949. The writer has seen the original of this letter.



- 37 The first of these studies is: Wilfred Barlow, 'An Investigation into Kinaesthesia,' <u>Medical Press and Circular</u>, January 23, 1946, 60-63. In a letter of March 2, 1958, Dr. Barlow informs the writer that he sent this paper to Sherrington before its publication. Alexander is mentioned in this paper.
- 38 Sir Charles Sherrington, <u>The Endeavor of Jean Fernel</u> (Cambridge, England, 1946), p. 89. Alexander's name and work are mentioned, and a footnote refers to UCL:

The text is: "It is largely the reflex element in the willed movement or posture which, by reason of its unconscious character, defeats our attempts to know the 'how' of the doing of even a willed act. Breathing, standing, walking, sitting, although innate, along with our growth, are apt, as movements, to suffer from defects in our ways of doing thep. A chair unsuited to a child can quickly induce special and bad habits of sitting, and of breathing. In urbanized and industrialized communities bad habits in our motor acts are especially common. But verbal instruction as to how to correct wrong habits of movement and posture is very difficult. The scantiness of our sensory perception of how we do them makes it so. The faults tend to escape our direct observation and recognition. Of the proprioceptive reflexes as such, whether of muscle or ear (vestibule), we are unconscious. We have no direct perception of the 'wash' of the labyrinthine fluid, or indeed, of the existence of the labyrinths at all. In their case subjective projection, instead of indicating blinds the place of their objective source. Correcting the movements carried out by our proprioceptive reflexes is something like trying to reset a machine, whose works are intangible, and the net output all we know of the running. Instruction in such an act has to fall back on other factors more accessible to sense; thus, in skating, to 'feeling' that edge of the skateblade on which the movement bears. To watch another performer trying the movement can be helpful; or a looking-glass in which to watch ourselves trying it. The mirror can tell us often more than can the most painstaking attempt to 'introspect'. Mr. Alexander has done a service' to the subject by insistently treating each act as involving the whole integrated individual, the whole psycho-physical man. To take a step is an affair, not of this or that limb solely, but of the total neuro-muscular activity of the moment -- not least of the head and neck." (1 The Universal Constant in Living, London, 1942.)

39 George E. Coghill, 'Appreciation: The Educational Methods of F. Matthias Alexander,' UCL, pp. xxi-xxviii.

40 See below, p. 159.



- 41 See the <u>New York Times Index</u>, XI, 1 (January-March, 1923), 144-45. Among other feats, Cour treated thirty neurasthenics by autosuggestion in the presence of one hundred physicians; enabled two lame prisoners to walk, and improved the voice of the singer, Mary Garden.
- 42 John Dewey, 'A Sick World,' <u>New Republic</u>, XXXIII, 425 (January 24, 1923), 217-18. Pagination is included in the text of the thesis where needed.
- 43 CCCI was first published in October, 1923. The pagination of the quotations is that of Dewey's 'Introduction,' as given in the 1955 reprint of the 8th edition. Full reference is given in note 3 to Chapters I-III, above.
- 44 John Dewey, Knowing and the Known (Boston, 1949), p. 317.
- 45 John Dewey, How We Think (New York, 1910), p. 72.
- 46 John Dewey, The Quest For Certainty (New York, 1929), p. 237.
- 47 Dewey's 'Introduction' to UOS (see note 5 to Chapters I-III, above) is from pp. xvii to xxi in the edition used for this thesis. The pagination for the quotations which follow is included in the text.
- 48 "And so I verified in personal experience all that Mr. Alexander says about the unity of the physical and the psychical in the psychophysical: about the habitually wrong use of ourselves and the part this wrong use plays in generating all kinds of unnecessary tensions and wastes of energy; about the vitiation of our sensory appreciations which form the material of our judgments of ourselves; about the unconditional necessity of inhibition of customary acts, and the tremendous mental difficulty found in not "doing" something as soon as an habitual act is suggested, together with the great change in moral and mental attitude that takes place as proper co-ordinations are established. In re-affirming my conviction as to the scientific character of Mr. Alexander's discoveries and technique, I do so then not as one who has experienced a "cure," but as one who has brought whatwer intellectual capacity he has to the study of a problem. In the study I found the things which I had "known"-in the sense of theoretical belief -- in philosophy and psychology, changed into vital experiences which gave a new meaning to knowledge of them" (UOS, p. xxx).
- 49 That is, from the time of the composition of the "Introductory Word" to MSI (see p. 127 and note 9, above) and the time of Dewey's latest letters to Jones (see p. 137 and note 36, above).

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- 50 John Dewey, <u>Theory of Valuation</u>, International Encyclopedia of Unified Science, II, 4 (Chicago, 1939), VI, 'The Continuum of Ends-Means,' pp. 49-50.
- 51 Op. cit., p. 48. Further page references are given with the texts.
- 52 For example, op. cit., pp. 29-33.
- 53 Roughly, the reasons seem to be these: Dewey is attacking the "subjectivist" theory of values in this essay, and makes much of the point that "private" values cannot, by definition, be communicated. This sort of value is a "feeling" that may or may not exist. But "the first requirement of scientific procedure (is) full publicity as to materials and processes" (op. cit., p. 22). On the other hand, Alexander's ineffable sense of the primary control could be communicated in words only to those who themselves have had experience of it. Psychology and biology have not yet been able to reduce these experiences to communicable, scientific terms and connect them with physiology, anatomy, and the quantitative statements proper to that kind of science. (See pp. 53-54 and 62-63.) Yet this is the task of those sciences. Psychology is still an absolute infant. We must wait for these sciences to grow up. (See pp. 62-64; p. 57.) This being the case, the essay under consideration would hardly be a favorable contest into which to introduce Alexander's theories.
- 54 John Dewey, <u>Experience and Nature</u> (Chicago, 1925; 2nd ed., New York, 1929). The second edition has been used for this thesis. Nothing was changed in this second edition after page 39.
- 55 Op. cit., pp. 248-297 and pp. 298-353, respectively. Pagination is given with quotations in the text hereafter.
- 56 There seems to be at least a shadow of Alexander in the following passage, for example: "Comfort or discomfort, fatigue or exhibaration, implicitly sum up a history, and thereby unwittingly provide a means whereby, (when other conditions become present) the past can be unravelled and made explicit. For it is characteristic of feeling that while it may exist in a formless condition, or without configured distinctions, it is capable of receiving and bearing distinctions without end" (p. 257). This is a good description of the "primary control".
- 57 See above, pp. 77 ff.
- 58 MSI, pp. 22-23.
- 59 HNC, p. 31.



- 60 Experience and Nature, p. 258.
- 61 See above, pp. 170 ff.
- 62 E. g., Experience and Nature, pp. 256-58; p. 267; p. 290; p. 299.
- 63 HNC, p. 32.
- 64 Ibid.
- 65 See p. 102, above.
- 66 One of these influences is undoubtedly Mead. See note 65 to Chapter IV, above.
- 67 See Experience and Nature, p. 292; p. 299.
- 68 See above, pp. 147 ff.
- 69 See p. 131, above.
- 70 Letter, Dewey to Jones, December 8, 1949. The suggestions are that Dr. Jones send his myographic records and his procedure to the Rockefeller Institute, with a request for a grant.
- 71 Ibid.
- 72 See above, pp. 179 ff.
- 73 John Dewey, 'The Naturalistic Theory of Sense Perception,' Journal of Philosophy, XXII (1925), 596-605. Reprinted in Philosophy and <u>Civilization</u> (New York, 1931), pp. 188-201. The quotation is on p. 189. Hereafter pagination is included with the texts, both taken from Philosophy and Civilization.
- 74 See above, pp. 132 ff.
- 75 CCCI, pp. xxv-xxvi.
- 76 Ibid., p. xxii.
- 77 Ibid., p. xxix.
- 78 Ibid., p. xxvii.
- 79 John Dewey, 'Reply to a Reviewer,' <u>New Republic</u>, XV, 184 (May 11, 1918), 55.
- 80 Letter, Dewey to unidentified critic of Alexander, May 22, 1918. (See note 10, above.)



- 81 CCCI, pp. poci-poci-
- 82 Ibid., p. xix.
- 83 Ibid., p. xx, italics added.
- 84 UOS, p. xix. See p. 134, above.
- 85 UOS, p. xxi.
- 86 John Dewey, 'Unity of Science as a Social Problem,' <u>International</u> <u>Encyclopedia of Unified Science</u>, I, 1 (Chicago, 1938), pp. 29-30.
- 87 CCCI, p. xxiv.
- 88 'Unity of Science as a Social Problem,' p. 31; p. 38. (See note 86, above.)
- 89 Ibid., p. 31.
- 90 Ibid., p. 29.
- 91 Ibid., p. 30.
- 92 Ibid.
- 93 Letter, Dewey to unidentified critic of Alexander, May 22, 1918. (See note 10, above.)
- 94 HNC, p. 10. This 'Introduction' is dated 1921.
- 95 See above, pp. 205-06.
- 96 Theory of Valuation (see note 50, above), p. 22.
- 97 John Dewey, 'Social as a Category,' <u>Monist</u>, XXXVIII (1928), 161-77. Reprinted in <u>Philosophy and Civilization</u> (1931), with the title '<u>The</u> <u>Inclusive Philosophic</u> Idea,' pp. 77-92.
- 98 John Dewey, 'Unity of Science as a Social Problem,' <u>International</u> <u>Encyclopedia of Unified Science</u>, I, 1, 29-38.
- 99 See note 50, above.
- 100 John Dewey, 'The Unity of the Human Being,' in Joseph Ratner, <u>Intelligence in the Modern World</u> (New York, 1939), pp. 817-35. Pagination is given with quotations in the text of the thesis.

- 101 Experience and Nature, p. 296 and n. 1.
- 102 "After presenting indorsements by psychologists and the lay press, the writer, his physician having failed to relieve his throat trouble, details a new self-cure system which is in substance that mal-coordination in disease is the result of faulty 'feeling' and man may be cured by correct 'reasoning.'

"Patients have gone to shrines, to Coue, Mother Eddy, and presumably Sister Aimee has a list of "cures" for ready reference. Nevertheless substantial progress will continue through regular channels." (Review of UOS, signed, "N. Y.", in <u>American Journal of Medical</u> <u>Sciences</u>, N. S. 184 (1932), 866.

- 103 "Physicians are the persons who have the most direct, intimate and continued contact with the living situations in which the problem is most acutely present. Since the decline of the influence of priest and pastor, no other professional body is in a position to make such a contribution and render such a service--though it should be acknowledged that the group of teachers also has an opportunity of which it fails to take adequate advantage." ("The Unity of the Human Being," p. 828.)
- 104 See above, pp. 211 ff.
- 105 MSI, p. xx.
- 106 See text quoted in note 103, above.
- 107 See above, pp. 130-32.

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f 8. M<u>cCornwek, E.D.-</u> Frederick d John Dewey, a neglected 690582 Y NAME OF BORROWER **JCRAPH** Toronto, University of Theses, Ph.D., 1958. McCormack, E.D.- Frederick Matthias Alexander and John Dewey, a neglected influence. P Univ T

