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John Dewey's

LECTURES IN THE THEORY OF LOGIC

Delivered at the University of Chicago, Fall and Winter Quarters
(1899-1900)

edited, with an Introduction,

Volume I

By

Steven Alan Nofsinger

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
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ABSTRACT

John Dewey's

LECTURES IN THE THEORY OF LOGIC

Delivered at the University of Chicago, Fall and Winter Quarters
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By

Steven Alan Nofsinger

Nine years after Dewey's appointment to the University of Chicago Studies in Logical Theory was published. Dewey contributed the first four essays in a collection numbering eleven in all. The point of view contained in this volume came to make up what William James dubbed the "Chicago School."

Unfortunately, Dewey's view of logical theory is presented almost entirely through a critique of the philosopher Lotze. C. S. Peirce, among others, strongly objected to Dewey's chosen method of exposition. And for us today, the method is too oblique to convey the essentials of a radical reinterpretation of inquiry.

But Dewey's positive program for the reconstruction of logical theory, was explored and developed in seminars on logical theory at the University of Chicago prior to the release of the Studies. If we refer to these lectures we can better understand his standpoint.

Steven Alan Nofsinger

Dewey's Lectures on the Theory of Logic delivered at the University of Chicago during the Fall and Winter Quarters of 1899-1900 are reproduced here for the first time. They provide us with an insight into his positive remarks concerning the reconstruction of logical theory.

In the Editor's Introduction it is argued that these lectures contain Dewey's "core vision" for the recontruction of inquiry, and hence for logical theory as the critique of inquiry. It tries to show that Dewey is adopting the view that experience creates the very norm or standard under which its articulation is to be certified, and that this norm is the ideal of the continuity of experience.

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EDITOR'S INTRODUCTION

PREFATORY REMARKS

This introduction seeks to explore John Dewey's positive remarks concerning the theory of logic developed in his 1899-1900 Lectures in the Theory of Logic. In this sense, the introduction's primary aim is to focus on the general theory Dewey is advocating. This theory is complex and involves a radical departure from traditional points of view. It represents what is most important for an understanding of Dewey and gives us an insight into how far along Dewey was, by 1899, in his program for reconstructing the very foundations of philosophical reflection. The "core" of his mature program is readily apparent in the Lectures. This program is filtered through various criticisms of philosophers now unread and untaught, particularly Bradley, but it is firmly offered up as an alternative model, radical in its consequences, to be further explored and developed.

This "core" vision, Dewey's positive program, is often set against a negative critique. Dewey's main foil is F. H. Bradley. Since the aim of this introduction is to understand Dewey's novel point of view and its relevance for today, the introduction does not focus on Dewey's criticism of Bradley.

Rather, every attempt has been made to situate the point of view contained in Dewey's lectures within the large body of his writings, both before and after 1899. Dewey's references to Bradley are, to a good extent, the demands of pedagogical respectability. Bradley's star had risen, and any respectable professor, particularly one who had a radically different philosophical vision, would certainly use Bradley as a point of reference through which his students could place their professor's new vision. Because this point of reference is, for most of us, no longer of interest, and because Dewey's star is again gradually beginning to rise, exactly what Dewey is arguing for, his positive program for the reconstruction of philosophical reflection, a program which was to define his career for half a century, needs to be explicated and researched. From this perspective, the criticism of Bradley is only of secondary importance.

Dewey's new approach to the problems which define philosophy, an approach which demands a reconstruction of traditional modes of inquiry, is the "core" subject of the Lectures. This may come as a surprise given the subject matter of the Lectures. What has logic to do with reconstructing philosophy? We automatically think of some abstract treatise on formal logic far removed from any real substantive issues. But Dewey is not using the term "logic" in the restrictive sense as we would today. In fact, the case is quite the reverse. He uses the term in its broadest possible interpretation. For example, just as someone might complain

that he does not understand the particular "logic" behind a certain plan of action, meaning that he does not understand its point or function within the given circumstances, so does Dewey use the term "logic." In this sense, Dewey's theory of logic, broadly conceived, must be understood as the theory of the point or function of any activity or process.

With this sense of "logic" in mind we can better understand why certain issues are discussed in the Lectures, issues that we today would not normally associate with a discussion of logic. There is, for example, an extended discussion of the nature of experience itself, its "logic." What is the "general logic" behind experience? What is the function of experience as a general process? Does it have a point or telos? Dewey's claim in the Lectures is that experience does have a general point to it, and that this point is best expressed in terms of the organism's ability to adapt to its environment along with its struggle to maintain any equilibrium this adaptation brings.

But Dewey's primary focus concerns the logic of judgment, the logic of reflective inquiry. What is the function of thought? What is its logical place in experience? How can we make sense of inquiry within the processes of experience? If experience has a general telos how does judgment, as a particular function of experience, express and contribute to this telos? It is the point of the Lectures to provide a new interpretation of thinking as having a particular place within experience, but a place within a new and

reconstructed theory of experience. "Logical theory" thus includes both an investigation into the general telos of experience and the particular telos of judgment within experience. This is the positive program which Dewey wants to articulate. But we should not regard this program as completely outside the bounds of conventional logical theory. Dewey is convinced that unless we properly situate the study of "valid" thought and the products of this study within the general telos of experience, we shall misunderstand both the meaning and need for this kind of inquiry. Unless we have some notion of the general function of inquiry in experience, conventional logical theory, as an instance of this function, will simply lack an adequate self-comprehension of its own activity.

It is the function of the following introduction to outline Dewey's positive program, to articulate exactly what Dewey's "core" vision contains, and how it provides him with a lifetime of research. This introduction, therefore, is not exhaustive of what Dewey has to say in the Lectures. It is not a substitute for the Lectures. Its aim is to assist the reader in understanding, to use Dewey's terminology, the "logic" of the Lectures.

I. THE LECTURES IN CONTEXT

In the spring of 1903 Studies in Logical Theory was published "with the co-operation of members and fellows of the Department of Philosophy" of the University of Chicago.[1] Dewey contributed the first four articles in a collection numbering eleven in all. The seven remaining authors together with "several others, not represented in this volume, who have also participated in the evolution of the point of view herein set forth" came to make up what William James dubbed the "Chicago School."[2]

The Studies marked Dewey's first significant contribution to logical theory. Prior to its appearance we have no real indication in Dewey's published works that something like the Studies should be forthcoming. Except for the 1900 article "Some Stages in Logical Thought," we must go back to

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1. Studies in Logical Theory; The Decennial Publications of the University of Chicago, Second Series, Vol. 2. (Chicago: University of Chicago Press, 1903).
2. See James's letter to Schiller, November 15, 1903, in Ralph Barton Perry, The Thought and Character of William James: Briefer Version, (New York and Evanston: Harper and Row Publishers, 1935), 308. Dewey's reference to "several others" certainly included James Rowland Angell, Associate Professor of Experimental Psychology at Chicago, and George H. Mead, Associate Professor of Philosophy at Chicago. See "The Relations of Structural and Functional Psychology to Philosophy" by Angell and "The Definition of the Psychical" by Mead in The Decennial Publications of the University of Chicago, First Series, Vol. 3, Part 2. (Chicago: University of Chicago Press, 1903). Both articles cite Dewey's work with approval and, together with Addison Moore's article "Existence, Meaning and Reality in Locke's Essay and in Present Epistemology," (an article in the same volume which James said he read "with almost absurd pleasure") could easily have been been part of the Studies. The latter, however, was not ready for publication.

1891 to find the last essay Dewey wrote with the word "logic" in its title.[3]

The lectures contained in this volume (Lectures on the Theory of Logic: 1899-1900) thus provide us with an actual record of Dewey's thinking on the topic of logical theory prior to the release of the Studies. More significantly, we have the testimony of Dewey and his students that these lectures were part of the working out of the program which was eventually summarized in the Studies. Since Dewey's contribution to that volume, as every reader is aware, is almost perversely restricted to a discussion and criticism of Lotze, we are apt to lose sight of the general theory Dewey is advocating. To capture this general perspective, and to fully appreciate the "New School" which it announces, we must turn instead to the following lectures. Their whole point is to work out the general bearings and consequences of a new way of viewing an old subject matter, to bring the "conception of process", of "function" and "activity", new "dynamic" categories rather than old "static" categories, to the interpretation of thought and its relations. Herein lies there significance. They record the actual process of Dewey's attempt to reconstruct the general foundations of logical theory. And in this sense they represent a more significant indication of Dewey's growing originality with

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3. "The Present Position of Logical Theory," The Early Works of John Dewey: 1882-1898, Vol. 1, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1969), 125-41. The essay "Some Stages in Logical Thought" was reprinted in Dewey's 1916 work Essays in Experimental Logic, (New York: Dover Publications), 183-219.

regards to logical theory than what we have from him in the Studies alone.

We cannot assume, however, that the Studies marked an entirely new direction of interest on Dewey's part. Since the publication of William James's Principles of Psychology in 1890, Dewey had been at work developing a functional approach to various subject matters. This approach enabled him to stress the factors of process and activity as unifying conceptions in which there are distinctions but no dualisms. If, for example, James was right in describing thought as a "stream," an "activity," or "process," then we do not have to posit a mind behind this activity. The activity itself is what is fundamental. Likewise, we do not have to posit an agent behind behavior as its cause, for behavior is always already ongoing. The problem is not to account for behavior at large but rather to control and direct it.[4]

By the mid '90s Dewey was using the conception of process as a basis for several psychological articles. These articles attacked, in their turn, what Dewey took to be unjustified dualisms presupposed in current psychological literature. Although none of them address specifically logical topics, Dewey does claim the point of view contained in them has consequences for logical theory.[5] He simply tells us

4. See, for example, "The Ego as Cause," The Early Works of John Dewey: 1882-1898, Vol. 4, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1971), 91-95.

5. "The point of this story is in its application; but the application of it to the question of the nature of psychical evolution, to the distinction between sensational and rational consciousness, and the nature of judgment (editor's em-

that its application must be deferred to a more favorable time. Furthermore, we know that Dewey had initially agreed to prepare a volume in the Muirhead Library of Philosophy series under the title Principles of Instrumental Logic. This agreement took place before Dewey arrived at the University of Chicago and was mentioned by J.H. Tufts in his letter to President Harper recommending Dewey's appointment to the University.[6] Although this book was never published it confirms the fact that Dewey was interested in logical theory well before the publication of the Studies.

We have, indeed, Dewey's own words on the matter. In letters to William James announcing the publication of the Studies and asking permission to dedicate the volume to him, Dewey tells James that "your Psychology is the spiritual progenitor of the whole industry..." Using the "conception of process" as a unifying perspective, Dewey distinguishes between the psychological and logical sides of this perspective. Referring to his psychological articles he says "It is simply that upon the psychological side the articles all go back to certain ideas of life activity, of growth, and of adjustment, which involve teleological and dynamic conceptions rather than ontological and static ones..." As for the logical side of this perspective, Dewey says that up until

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phasis) must be deferred to a more favorable opportunity." "The Reflex Arc Concept in Psychology," The Early Works of John Dewey: 1882-1898, Vol. 5, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1972), 109.

6. The Early Works of John Dewey: 1882-1898, Vol. 4, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1972), xi.

the publication of the Studies his work had been confined to thinking things out in classroom lectures. He tells James that "I have been at work with my classes more or less on the metaphysical--or logical side as I prefer to call it--for some years, but I never felt until this year that I had anything in shape to publish..."[7] But why should Dewey defer the "logical side" of his reseach program to classroom discussion? Why does the "psychological side" come first?

Perhaps we can appreciate Dewey's strategy in the following terms. Dewey's first concern is to test the descriptive power of the "conception of process" which he had discovered in James's Psychology. Is the principle of process applicable to everyday experience? In other words, is experience, at its basic level, best understood as a continuous process in which allegedly structural distinctions such as between mind and body, subject and object, thought and action, must be given functional interpretations? Clearly, what Dewey is after is a new theory of experience. His aim in the early "psychological" articles is to show that the apparent structural dualisms contained in previous theories of experience can be overcome if we view experience as a continuous process of "activity, growth, and...adjustment." In this sense the principle of process is first offered as a general theory of experience. It provides Dewey with a phenomenological critique of everyday experience, a point of

7. Barton Perry, The Thought and Character of William James: Briefer Version (New York and Evanston: Harper and Row Publishers, 1935), 306-7.

view from which the integrity of lived experience is preserved. In this sense his program at this time is to reconstruct the science of psychology through reconstructing the subject matter which it studies. If psychology is the science of experience, any reconstruction of experience, any new theory of the nature of experience, must bring with it a new psychology.

On the other hand, it is one thing to demonstrate the applicablity of the principle of process, but another thing to demonstrate that it is adequate, i.e., that there is no dimension of experience for which the idea of continuity, as a general theory or point of view upon experience, is not applicable. This brings Dewey face to face with the problem of the normative aspects of experience, its self-critical dimension expressive in the activity of judgment. Experience does not merely flow, it discriminates between the kinds of experience implicated in this flow. Hence we arrive at the question of the function of judgment in experience. In the activity of judgment experience discriminates its various aspects as true or false, moral or immoral. In short, there is an evaluative aspect of experience which needs to be incorporated into the general theory of experience.

Dewey's Lectures are an attempt to extend the conception of process into the normative aspects of experience. The conception is, Dewey claims, phenomenologically applicable. His aim is to show that it is also phemonemologically adequate. He believes that experience not only involves, in

its unproblematical aspect, a continuous flow of behavior, but also involves a projection of the means for restoring this flow of behavior when there is an interruption of habitual response. This is the function of the normative in experience. Experience originally "is" for the most part continuous and unproblematical. But when experience becomes problematical, when present habit does not suffice to resolve the difficulty at hand, then a future "is" of projected action, an action meant to restore the original "is" of continuous involvement, functions as a present "ought." The principle of continuity of experience thus becomes the basis for Dewey's account of the function of projected ideals in experience.

Dewey had a life long interest in unifying apparent dualisms. The "is" of description and the "ought" of norm <u>are</u> distinctions made within the overall "life process," but Dewey's working program is that these distinctions are merely indicative of certain functions of experience, not indicative of unbridgeable metaphysical dualisms. The function of the "ought" of experience, as indicative of the unsettled and problematical, grows out of the "is" of experience, its nonproblematic base of habit, in an attempt to <u>re</u>construct, <u>re</u>do, this base for the sake of preserving continuity of response. The normative aspect of experience grows out of and is a response to its descriptive nature. In this sense it is no wonder that Dewey's first research program is the test of the psychological or descriptive applicability

of the "conception of process" which he attributed to James. The "ought" grows out of the "is," the "ideal" out of the concrete possiblities of the "real." But this means Dewey must initiate a second research program, a reinterpretation of the "ought" and the "ideal" based upon a reinterpretation of the "is" and the "real."

The Studies represent, in effect, the research program initiated by Dewey into the normative adequacy of the "conception of process," its "ideal" projection as the basis of reconstructing experience. As such, this work is in a large extent based upon the following lectures in which he was trying to explore the consequenses of his psychological program. Indeed, one of the articles in the Studies expressly attributes the point of view offered as due to "the standpoint of the theory of the judgment developed by Professor John Dewey in his lectures on "The Theory of Logic."[8] And in the Preface to the Studies we read that "The various writers have been in contact with one another in Seminars and lecture courses in pursuit of the same topics, and have had to do with shaping one another's views."

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8. Helen Thompson, "A Critical Study of Bosanquet's Theory of Judgment," Studies in Logical Theory: The Decennial Publications of the University of Chicago, Second Series, Vol. 2, (Chicago: University of Chicago Press, 1903), 84n. A Miss Thompson delivers a report on Bosanquet in the Lectures.

II. PRELIMINARIES (Lectures: Chapter One)

Dewey begins the Lectures with "a preliminary account of what thinking is, what ideas are in the process of thought" (p.113). The account begins with the assertion, radical in import and indicative of Dewey's growing break with idealism, that "thinking is a secondary and derivative process: a tool, an instrument" (p.113). So is announced, five years after arriving at Chicago and three years before the publication of the Studies, the basic tenet of Dewey's instrumentalism.

According to this tenet we are to understand thinking as a particular function of experience and not something that oversees and grounds all possible functions. What Dewey wants to focus on is that aspect of experience which is dominated by the activity of thinking, that aspect which qualitatively separates it from other possible human activities. Thinking is something we engage in or not, something we can do which has its peculiar flavor and which separates it from other doings. Thinking is the act of inquiring, an act among other acts.

This perspective is fundamental. Not only is thinking to be conceived as a particular function of experience, and hence not grounding the legitimacy of some aspects of experience while confining others to mere appearance,[9] it is

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9. Note that if this is the case, moral and aesthetic experience cannot be relegated to a delusive "mere appearance." Experience really does have moral and aesthetic values.

itself grounded in "a more original and primary form of experience" (p.114). Thinking, Dewey believes, is essentially derivative.

To claim that thinking is derivative is to claim that thought arises out of something as a response. If we isolate this statement we are apt to miss the significance Dewey wants to impart to it. Since, it may be argued, thought must always respond to a content, to something given, nothing new is really being proposed if all this means is that thinking must think something. If this is all Dewey means when he points out that "we think about or on our experience. We reflect or turn back to something," (p.113) our immediate reply must be--well of course we do.

But Dewey's position is both more subtle and more original. He is not merely claiming the obvious, that thinking is dependent upon something to think and hence arises as a mere demand of logic.[10] He holds that philosophers have created insolvable problems in assuming that thinking can be abstracted out of the context of ongoing experience and taken as a faculty or aspect complete in and of itself. And this is to say that, for Dewey, we cannot begin to understand what thinking is unless we first ask ourselves why reflective inquiry should ever occur within experience, why "thinking about something" should itself arise within the

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Thought can criticize these values and modify them, but thought does not create them ex nihilo.

10. Of course this demand is not mere at all. Philosophical schools have debated over its proper interpretation and the ontological status of its terms.

processes of experience. So Dewey asks "Why should we think at all? Why are not the direct processes of experience sufficient?" (p.113).

If the question is put in this form we must assume a radical break with traditional philosophy. Traditionally, philosophers have isolated thought from the context of ongoing, vital, experience. Since thought demands a content, the essential problem has been the correct interpretation of the relationship between thought at large and its content at large. Is this content given independently of thought? If so, how does thought reach it? If not, then is not the distinction apparent only? Are we not left with thought thinking itself? And so we arrive in the dialectical problems - some would even say quagmires - of epistemology and metaphysics.

Dewey's Lectures are an early attempt to avoid such pitfalls. Drawing upon an analogy Dewey was to use later, the problem and Dewey's response may be outlined as follows.[11] If thinking is abstracted from the context of the processes of experience, the relationship between thought and its content can be nothing but a mere logical reflex. To point out that thinking must think something is on the same level as the obvious claim that digestion must digest something.[12] To abstract the later from its context in

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11. Consult Chapter 10 of Dewey's Essays in Experimental Logic, (New York: Dover Publications, 1916) "Epistemological Realism: The Alleged Ubiquity of the Knowledge Relation," 269-272.

12. The metaphor linking thought with digestion was one of Dewey's favorite. As late as 1949 he was still using it to

maintaining the equilibrium of the organism would give us the very same kind of problem we get in abstracting thought from its place in experience. Since digestion demands a content, a digestible, the essential philosophical problem collapses into the correct interpretation of the relationship between digestion at large and its content at large, the digestibles. Is this content given independently of the activity of digestion? If so, as the Fooderists might proclaim, how does digestion digest things that in themselves must be characterized independently of being digestible? How can digestion reach things essentially independent of it? On the other hand, if the contents of digestion cannot be characterized independently of being digestible, as the Eaterists might retort, are not these contents already infected or constituted by digestion as digestibles? Are we not left then with the conclusion that outside of digestion there is nothing really independent of it? Does digestion merely digest the products of it own operation?

The only way out of such dialectical absurdities is to do for thinking what we have already done with digesting. Instead of regarding digestion as a thing with contents abstracted from the overall import of the organism in which it occurs, we regard it as an activity or function within the life history of the organism for the purpose of maintaining its equilibrium. For Dewey, this means we must situate

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explain his position. Consult his "In Defense of the Theory of Inquiry," in On Experience, Nature, and Freedom: Representative Essays, ed. Richard Bernstein, (New York: Liberal Arts Press, 1960), 144.

thinking within the context of vital experience. The result must be that "We are interested in thinking as a function, not as mere content. What does it do for us? What is its value, its worth?" become the operative questions (p.116).

Thought is derivative because it occupies a specific function within experience, within the process of experience. If we isolate this function we can, along with the function of digestion, make distinctions within its operation. But these distinctions will be dependent upon the end the function serves. And this is to claim that any structural distinctions we may report must always be subservient to their functional value. Thus it is not surprising that, throughout his lectures, Dewey constantly interprets distinctions in terms of value, in terms of the question "Why?" He warns us, for example, that we cannot carry over distinctions within one function and incorporate them as operative in other processes. The structural distinctions between mind and body, thought and its object, we may report within the activity of thinking must not be read back into the very processes of experience which have called out this activity. Do not, we shall be warned, confuse the activities of primary and immediate experience, experience in its nonproblematic continuity, with the essentially intermediate processes of reflective inquiry. Thinking comes after and <u>in response to</u> primary experience when this experience becomes problematic.

To sum up: Dewey does not believe we can gain any philosophical currency by beginning with the bare and abstract notions of a thought "at large" dependent upon a content "at large." That he does not is crucial. For his aim is to go beyond both empiricism and idealism, both "sensationalistic empiricism" and "transcendentalism" as he calls them.[13] These are the two broad metaphysical or epistemological positions which do give philosophical currency to the bare abstractions of a thought "at large" (the purely ideal) and thought's object "at large" (the brutely factual). But it is Dewey's contention that only through the proper location of thinking as a function within the overall process of experience can we correctly understand the logical or structural abstractions (the ideal/real distinction) implicated in its analysis. This is what he means when he claims we must focus the discussion on the meaning or value of the structure rather than on its bare existence (p.116).

The whole point of Dewey's preliminary account is to provide us with a proper definition of the subject matter of logic. This subject matter is, of course, thinking, or judging as Dewey often calls it. Because he claims that thought, judgment, occupies a functional position within the processes of experience, thought must always be understood in a teleological context. Thinking, broadly conceived, is always

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13. Dewey saw this as one key component of his theory of inquiry. Cf. "In Defense of the Theory of Inquiry," in On Experience, Nature, and Freedom: Representative Essays, ed. Richard Bernstein, (New York: Liberal Arts Press, 1960), 138-139.

for the sake of some end. Hence thinking, as means, must necessarily be instrumental in essence. The pragmatic bias is evident. The subject matter of logic is not concerned with existential issues, with what thought is or where it takes place, as indicators of the metaphysical essence of thought. Rather, logic is concerned with what thought does within and for experience. For logical purposes, the relevant issue is "under what circumstances, for what end..." does thinking, broadly conceived, occur (p.118).

In outlining this position on what thought does, what end it serves, and hence what thought and its ideas are as instruments for this end, Dewey tells us that thinking arises within experience as a response to "some conscious doubt as to the nature of an experience." The function of thinking is to remove this doubt through "the entertaining of various suppositions or tentative views as to what the fact might be," and so effect "the cessation of conscious doubt" (p.118). This cessation is described as "the unification of experience" or as a "reorganized experience" (p.127). The outline is thus given in its most abstract formulation, and details need to be filled in when referring to any particular episode of thinking. But the outline remains one of the earliest, if not <u>the</u> earliest, abstract formulation of Dewey's theory of inquiry.

The body of Dewey's "preliminary account of thinking" is not, however, a direct explanation of what thinking does in experience. His account is filtered through a

quasi-Hegelian rendition of the various historical stages thinking assumes in its struggle with doubt. This account is, in effect, an early draft of the identical themes encountered in Dewey's 1900 essay "Some Stages of Logical Thought."[14]

In the lectures we are to view the journey of thinking as moving from the dogmatic, in which doubt is eliminated as quickly as possible, up to the scientific, in which there is an active search for more problems. This journey, Dewey hints, can be duplicated in the individual, although he prefers to associate its stages with historical epochs. Putting the discussion of stages in both individual and historical terms probably reflects Dewey's flirtation with the then current Culture Epoch Theory in education, which became something of a fad within certain educational circles. In its barest terms, this theory based educational doctrine upon the belief that the child's mental development recapitulated the various historical stages of thinking to be found within the race.[15]

Nevertheless, there remains a strong Hegelian concern about reconciliation in both Chapter One of the Lectures

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14. The Middle Works of John Dewey: 1899-1924 Vol. 1, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1976), 151-174. Later reprinted in Essays in Experimental Logic. In the Introduction to volume one of the Middle Works, Joe R. Burnett claims that "This article is to my knowledge the first extensive, albeit schematic, attempt by Dewey to formulate the pattern of inquiry." xiv.
15. Consult The Middle Works of John Dewey: 1899-1924, Vol. 1, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1976), xv. A brief account of this theory is offered here.

and in the following years' "Stages." In the later essay we can detect an objective stage of uncritical thought in which ideas are dogmatically accepted as factual, a subjective reaction within which they are given over to uncontrolled criticism -- for Dewey the period of the Sophists -- and finally, everything coming together in the fulfilling reconciliation of science. As the final stage of this doubt-inquiry process, science takes on some of the attributes usually reserved for the Absolute. For only within science does thinking come to terms with itself in the recognition that doubt is essential to the operation of thought and not something over against it with which it must struggle.[16]

These remarks serve to remind us that Dewey is developing his viewpoint against the backdrop of prior intellectual attachments. Whether or not Dewey ever did rid himself of the "Hegelian bacillus"[17] is debatable. What cannot be debated is that in 1899 this presence remains strong and, at times, almost schematic in operation. Yet it is this very fascination with reconciliation, with continuity and process in place of duality and stasis, that provides Dewey with the means and motivation to think beyond rigid distinctions and into their functional significance, to think beyond abstract

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16. Consult "Some Stages in Logical Theory," The Middle Works of John Dewey: 1899-1924, Vol. 1. ed. Jo Ann Boydston (Carbondale: Southern Illinois Unversity Press, 1976), 169,172-174.
17. This is Dewey's phrase. Consult his letter to William James in Barton Perry, The Thought and Character of William James: Briefer Version, (New York and Evanston: Harper and Row Publishers, 1935), 307.

questions of existential structure to issues of worth, value, and meaning.

In stressing the processes of experience, the functional nature of thought within these processes, and the need for interpreting distinctions in terms of their functional significance, Dewey is outlining an instrumentalist program he believes is faithful to his intellectual commitments. But these commitments are not exclusively philosophical. They also reflect Dewey's attachment to current scientific knowledge, particularly in the domain of psychology. If psychology, as a science, gives us knowledge about psychical life, such knowledge cannot be ignored. For surely thinking is part of our psychic life. If logic is concerned with the normative and psychology with the descriptive, the question emerges as to the proper relationship, or lack thereof, between thought in its normative and descriptive interpretations. This questions will lead Dewey to consider the general status of normative and descriptive inquiries. Hence we are brought abruptly, but not without reason, to the second chapter of Dewey's lectures. This chapter will help shed some light on Dewey's final and perplexing remark at the end of chapter one. There, Dewey claims "Logic, instrumental logic, will furnish the key to the ultimate metaphysics, or philosophy (<u>which in this case will be ethical</u>)" (p.129, emphasis added.)

III. PSYCHOLOGY AND LOGIC (*Lectures*: Chapter Two)

Chapter Two begins with the familiar distinction between psychology as a descriptive science and logic as a normative discipline. But we are sure to become confused in the course of reading this chapter unless we understand that Dewey is offering not only an interpretation of this distinction, but at the same time arguing *for* (in the case of psychology) or simply *presupposing* (in the case of logic) certain positions involving these disciplines. Because Dewey does not separate these topics the chapter is suggestive but can also be bewildering.

But if we frame this chapter within Dewey's overall project, we can see what Dewey's general strategy is in this section of the *Lectures*. If psychology is the study of experience, and if its aim is to provide us with a *general theory of experience* which is phenomenologically applicable to the course of experience, then any test of this theory will be in terms of its *adequacy*. This means that *any* theory of experience must address the normative aspects of experience, its self-critical dimension expressive in the function of judgment. But how can the descriptive "is" of psychology be brought into relation with the normative "ought" of judgment? Judgment is concerned with whether or not particular experiences are true or false, moral or immoral, etc. It operates according to standards, norms. How can a science of experience, which tells us *how* experience operates, give us

any clue to what kinds of experience are of value? Is descriptive inquiry into the how of experience fundamentally different from normative inquiry into what experience is to be evaluated against in its pursuit of truth and goodness? Is philosophy a distinct and separate discipline from science? This is the basic theme of this chapter of the Lectures.

THE DISTINCTION AT FACE VALUE. Dewey begins with the distinction between psychology as a descriptive science and logic as a normative discipline. Psychology, in its broadest sense, is concerned with the proper description of the events of psychic life and with the endeavor of relating these events under descriptive laws. So far as its study of cognitive processes go, it gives us the structural elements, or means, by which these processes operate. Whether these processes reflect good thinking or bad thinking is irrelevant to the psychologist. For his or her concern is simply with how thinking operates, its mechanism, process.

Logic, on the other hand, is concerned with questions of the value of this mechanism or process. Whether we have thought well or poorly, quite apart from being irrelevant, becomes the primary focus of the logician. In fact, the logician's sole concern seems to be the erection of norms for evaluating these processes. What these norms are and what they are not define the subject matter of logic.

Dewey expresses the underlying distinction between psychology and logic by claiming that the former deals "with the `how,' the latter with the `what'" (p.133-134). Psychology, as the study of cognitive processes, deals with how thinking carries on it operation in terms of the structural components of sensation, images, et.al., while logic, as the study of the worth of these processes, deals with what these processes are to be evaluated against. Dewey summarizes the distinction by claiming that whereas one is concerned with questions of "genesis" the other occupies itself with simple "analysis" (p.135).

We seem, therefore, to have two radically different viewpoints. We can view thinking as a mere process of events, and adopt the attitude of the psychologist in asking how this process operates, or we can view thinking as essentially leading to an outcome which demands evaluation, and hence adopt the attitude of the logician in asking what analytic principles must be involved in its evaluation.

If this distinction is fundamental in the sense that there is no bridge between the study of how cognition arises and carries on its operation and the study of what ends or standards cognition is to be evaluated against, it follows as a matter of course that psychology really has nothing to offer to logic, nor logic to psychology. There remains at the core of experience a fundamental dualism of inquiry. But it is immediately obvious that once we put the distinction in these terms much more is involved than the specific

relationship between the disciplines of psychology and logic. For what we have is nothing other than the brute distinction between questions of fact and questions of value, between de facto inquiry and de jure inquiry.

Of course Dewey recognizes this. But this may initially cause some difficulty in interpreting this section of the Lectures. For Dewey often equates the word "logical" with any attitude which evaluates events against standards or ends. Thus we find him claiming, for example, that "the attitude of logic is normative, teleological. It treats of the value or validity of facts. The question is about the relation between genesis and validity, between events as events and their value" (p.135).

But if we are using the "logical" as synonymous with the attitude of evaluating events in terms of their "value" against the backdrop of "standards," we can expect the following retort. To use the word "logic" in this sense means nothing short of equating logic with philosophy in general. For, it might be argued, philosophy simply is the discipline which evaluates the world of events by means of standards or norms. What else is it doing but demarcating the good from the bad, the beautiful from the ugly, reality from mere appearance, and of course, correct thinking from incorrect adventures of thought?

We seem, then, to have two different senses of the term "logic." On the one hand logic is to be identified with the study of the ends or standards cognition is to be evaluated

against. On the other hand, logic becomes identical with philosophy in general. The former definition of logic localizes the problem into the right relation between psychology and logic, the latter definition expands the problem into the right relationship between science and philosophy.[18]

Dewey freely flows between both definitions, often preferring or presupposing the latter. This causes a few headaches in trying to determine exactly what topic is currently being discussed, but Dewey's theme is nevertheless one: the distinction, whether narrowly or broadly viewed, between de facto inquiry and de jure inquiry, questions of fact and questions of value, where value is broadly conceived in terms of both moral and epistemological dimensions of inquiry.

Perhaps we could have anticipated this confusion after all. We remember that Dewey concluded his first chapter with the cryptic claim that "Logic, instrumental logic, will furnish the key to the ultimate metaphysics, or philosophy (which in this case will be ethical)" (p.129). A key, to extend Dewey's metaphor, unlocks doors and reveals what we have been searching for. In philosophy, more often than not,

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18. Consult Dewey's 1899 article "Consciousness and Experience," The Middle Works of John Dewey: 1899-1924, Vol. 1, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1976), 114-130. Dewey's original title for this article was "Psychology and Philosophic Method." Like the subject matter of Chapter Two in his Lectures, Dewey originally opposes psychology to another discipline, in this case to philosophy in general. But Dewey soon argues that psychology is a science, and the distinction becomes one between science and philosophy. The conclusion is that "It [philosophy] means an alignment with science." 129.

what we are searching for is not merely an answer but the proper question. And what Dewey is offering up in this second chapter is precisely what he takes to be the philosophical question, namely, the proper relationship between facts and values.[19] If, and there is no question that this is a rather large "if," if we regard the study of the relationship between fact and value as, broadly, the study of the relationship between facts controlled and controlling factors within experience, then perhaps we can take Dewey's statement sympathetically that the ultimate philosophy "will in this case be ethical" (p.129). For after all -- or so we may imagine Dewey putting the question -- what is ethics writ large but the attempt to give an account of the controlling factors in experience (the normative or critical aspects of experience as a response to the problematical) in their proper relationship to controlled experience (descriptive of the unproblematical flow of involvement which defines everyday experience), and an account of the controlled factors in experience (its unproblematic aspect) in their proper relationship to the controlling factors in experience (the means of maintaining the continuous flow of everyday exeperience)? To properly situate the descriptive

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19. For further bearing on this matter, one should consult Dewey's 1902 essay "The Evolutionary Method as Applied to Morality." The Middle Works of John Dewey: 1899-1924, Vol. 2, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1976), 3-38. This article concerns the import of the genetic-functional method as it affects the study of morals. Dewey uses this method as his basic criticism for any fundamental distinction between "genesis" and "analysis."

or de facto aspects of experience within its normative or de jure operations, and to properly situate these normative or de jure operations within the descriptive or de facto aspects of experience, defines the ultimate problem for philosophical reflection. To simply accept these distinctions as indicative of a dualism within experience, to let descriptive inquiry go one way and normative inquiry another way, is to give up the ultimate aim of philosophical reflection.

THE DUALISM REJECTED. The distinction between psychology and logic, we remember, is first framed as a distinction between how and what, genesis and analysis. This distinction, if rigid, presupposes an intrinsic separation between the study of the means by which something emerges and the study of the end which does emerge. If this means we have two absolutely independent disciplines, one devoted exclusively to process and the other exclusively to product, then we have an unbridgeable dualism. Then the study of the means or mechanism out of which thinking emerges and by which it operates is essentially irrelevant to what thought as an end or achievement of these processes gives over to logical theory. Psychology is divorced from logic because process is irrelevant to product. And logic is divorced from psychology because it makes the product - now thought "at large" - irrelevant to the processes which generate it. It is precisely this divorce between generating means and end generated that

Dewey opposes when he says "This rigid distinction I reject" (p.134). The rejection is based upon his belief that we cannot completely or wholly separate the study of how something emerges and grows from questions involving the essential nature of the evolved end. "The real way to get at the essence of the fact is to study the way it appears, grows" (p.135). His comments on the nature of mathematics (Dewey adopts an explicitly constructivist position) and the methods of science are simply meant to bolster his position that the proper analysis of anything is always going to be genetic-functional.

To understand anything, Dewey claims, requires that we situate it within a means-end continuum. To analyze what "X" is, for example, means understanding "X" as a functional expression of the conditions which have called it forth, and hence as linked essentially with past processes. And it also means understanding "X" as functionally conditioning other events, and hence linked essentially with future processes. "We get at the essence of the fact in and through circumstantial evidences, through the study of the conditions" (p.134).

The point Dewey wants to make is that if we cannot separate an object or event from the continuum in which it is situated, if the proper appreciation of this ongoing temporal context is an essential ingredient in the correct analysis of anything, then <u>any</u> inquiry into the nature of an activity must first locate the "statement of its origin" and

the "statement of its destination or end." Otherwise, "It is like trying to define a line as lying between two points when you do not know where the two points are" (p.147).

Of course such considerations must apply to the activity of judging. Here Dewey distinguishes between what he calls the live judgment and the dead judgment. The live judgment always has a particular context and motivation. It is located in a situation out of which it emerges and to which it responds in and as an expression of interest. A live judgment is thus essentially an activity, something we do at a particular time and place. "The judgment from this standpoint is an event, something that takes place in time and space, related to psychical events before and after it" (p.149).

The dead judgment, on the other hand, is the product abstracted from the conditions which generated it. The essentially temporal element of inquiry and discussion which holds off the final judgment and which puts it in suspense is completely abstracted from. We have a judgment "made in the abstract, at large" (p.148). We have the traditionally unmotivated and abstract "The cat is on the mat" illustration of the essence of judgment, the primary focus of traditional logicians. But Dewey holds that "All thinking implies inquiry and discussion, with the final discovery at the end of a process of discovering. To treat the judgment apart from such a setting is to lose this inquiry and discussion which really make a judgment a judgment" (p.148). A judgment

in the abstract, a dead judgment, is simply a "concept" says Dewey.

We come then to the following conclusion. We should not separate (although we can distinquish) process from product, genesis from analysis. This applies to judgment as well. Any study of judgment must focus on the live judgment, judgment in the making. Indeed, Dewey says that "The distinction between the judgment in the abstract, without any context, any situation, any historical setting, and the judgment in the making, in passing, is the difference between the formal and instrumental logic" (p.147). Therefore the proper analysis of thinking qua judging, the subject matter of logic, must be genetic-functional. And this is to say that what judgment is cannot be divorced from issues bearing upon how it arises and what it effects.

Dewey therefore rejects any dualism between genesis and analysis, process and product, a distinction which he believes forms the basis for the claim for a rigid distinction between psychology and logic. The contextual nature of judging, its location in experience as an event conditioned by and conditioning other events, its essence as an act, supplies Dewey with the means of mediating between the how and the what as it pertains to judgment. But what does this mean for the disciplines of psychology and logic? What precisely does the mediation between the "how" and the "what" do for our understanding of these disciplines?

THE DISTINCTION MEDIATED. If the distinction between psychology and logic is not rigid, then there must be an underlying unity which bridges the apparent dualism between the disciplines. The distinction, in effect, must be mediated. But what, in concrete terms, would such a mediation require? Perhaps we should try to answer this question first before addressing Dewey's attempt to construct such a mediation.

Any mediation between psychology and logic would require two things. First, it would require that the logical be partly determined by the psychological. In other words, it must involve the claim that the proper domain of logic must of necessity have psychological reference and import. Secondly, it would require that the psychological be partly determined by the logical, otherwise there would be no true mediation. Logic would simply remain as an aspect of the psychological and we would have no avenue for real criticism upon experience.

In simple terms, what must Dewey claim to be the case? First, he must claim that the significance or philosophical currency behind any interpretation of what it means to think well, to think "validly," must be absolutely dependent upon the scientific study of what experience is, i.e., upon psychology. And so we should not be surprised when he says "Is there any subject matter left over for logic when the mental life is treated fully from the psychological point of view? Certainly not" (p.138). But this means we cannot understand

what norms signify in abstraction from the situations in which they operate in our mental life. The means or medium in which norms operate become an essential element in their interpretation. In other words, values, in abstraction from facts, have no "transcendental" significance.

On the other hand, he must claim that we cannot approach the subject matter of psychology scientifically without making implicit references to ends or norms. "Can we treat the psychical events merely as events without assuming reference to aims or ends which they realize? Does the consideration of psychical events presuppose throughout reference to the realization of certain ends with reference to which these events take place? Certainly the latter" (p.138). But this must mean that the processes of experience have in themselves a certain kind of telos. In other words, the facts of experience conceived as mere psychical events in abstraction from the values these events realize, have no "existential" significance. Ends or norms are implicit in the processes of experience and thus become essential elements for its proper interpretation. Hence any true mediation must involve a thorough integration of both facts and values, means and ends.

DEWEY'S INTERPRETATION. Dewey's own statements concerning how the mediation between psychology and logic is to be effected are, unfortunately, rather sparse. He gives no

detailed argument supporting his claims. Often he simply presupposes the mediation as a fact, or at least as a working hypothesis. This should not be surprising. For if Dewey is grappling with what is the philosophical problem, a problem he wrestled with for an entire lifetime, we should not expect his remarks here to be the end of the matter. In fact they are probably closer to the beginning. It would not be too unfair to say that Dewey is outlining a program. The goal is given and articulated but the work remains in reaching it. Nevertheless, we can detect a general strategy behind his statements on the matter.

The strategy is Hegelian in form but Darwinian in content. It is Hegelian in form because it adopts the following procedure. If two things seem to be out of relation, if we are confronted with what appears to be a simple dualism, then the way to bring them into relation is to view them as parts of a broader whole in which they are organically connected. The apparent dualism simply reflects a deeper functional distinction. By situating the apparent opposites within the whole, we achieve a new understanding of these opposites, see them in a new perspective. Therefore any true mediation must involve some sort of revision or reconstruction within the terms of the distinction.

The consequences of this Hegelian strategy can be confusing unless we make some distinction between the use of our terms before and after this revision has taken place. And here Dewey is doubly confusing. Not only does he take

this strategy for granted, so that the reader must reconstruct it alone, but he does not adequately distinguish between the use of the terms before and after their reinterpretation has taken place. The confusion is less troubling with logic because Dewey is, of course, advocating an instrumentalist reconstruction. But Dewey is not as open when it comes to the status of psychology. And part of the problem in understanding Chapter Two is that he does not distinguish adequately enough between psychology before and after this revision. He simply uses the term "psychology" throughout. But the distinction is crucial, for he is arguing for a particular kind of psychology, a functional psychology, while at the same time attacking the cogency of the dualism between an unrevised structural psychology and formal logic.

But how does Dewey, using an essentially Hegelian strategy, effect a transition <u>from</u> a psychology concerned with bare content and its structural distinctions, <u>to</u> a psychology concerned with the ends or functions of these structures? In like manner, how does he effect a transition <u>from</u> a formal logic <u>to</u> an instrumentalist logic? The formal strategy is clear. There must be a third element which effects the transition and accomplishes the reconstruction.

The keystone which arches the span and makes the dualism between psychology and logic apparent only, thus giving the strategy content, is simple Darwinian biology.

Biology offers Dewey the means of mediation because its idea of adaptation, the struggle for continuity with one's

environment, as an encompassing third factor, brings the conception of the integration of means and ends into a working system. To view the general scope of our subject matter from the perspective of organism-environment, to view the means by which mental events operate from the perspective of the well-being of the organism, i.e., to adopt a functionalist position throughout as a working model, means that norms are to understood in their fitness or serviceability for some concrete situation. Experience is not only in its non-problematic aspects continuous with its environment, adapted to its environment, but experience projects this as an ideal before itself when its experience becomes problematic. "The question is whether the whole body, whether the whole mind, has not been and is not organized with reference to these very ends (well-being in life) which have left their impress on every detail" (p.139). Continuity of experience, understood as the unproblematic adaptation of the organism to its environment, is not only definitive of well-being, definitive of the unproblematic dimension of experience, but is at the same time the standard and critique of problematical experience, the very meaning of the normative function of experience which is to restore and reconstruct its lost adaptation to the environment. And Dewey goes on to support this position in a reference to James. "He does not pretend to take pure mind, mind by itself apart from its concrete content. There is, in other words, a norm there. Mind isn't

something in a vacuum. It must be taken in its environmental "setting" (p.140).

Such talk as this, brief though as it is, is sure to offend. If functionalism in its biological form is to reign supreme, what has become of truth? But such offense may be premature. Dewey is not so crass as to ignore the consequences of this functionalist position. For when someone retorts that as far as thinking goes, or inquiry goes, it is the truth that matters, it is the truth which is our aim and end, Dewey could well respond that his adversary at least has one foot already in the functionalist camp. For in claiming that "truth" is the aim of inquiry, his adversary has already admitted that inquiry has a function. Dewey simply refuses to view this "truth" function as somehow transcendental, divorced from the activities of experience and its processes of adaptation out of which, as a response, the "truth" emerges. In latter essays Dewey will admit that the function of thought is "correspondence," but he will also claim that the proper interpretation of this "correspondence" is still problematic.[20] Dewey's firm conviction, though, is that this "correspondence" will ultimately mean "adaptation," the restoration of the continuity

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20. See, for example, Dewey's article in Essays in Experimental Logic, "The Control of Ideas by Facts," (New York: Dover Publications, 1916), 230-249. "It is said that what makes a man's idea of his environment true is its agreement with the actual environment, and `generally a true idea in any situation consists in its agreement with reality.' I have already indicated my acceptance of this formula. But it was long my misfortune not to be possessed offhand of those perfectly clear notions of just what is meant in this formula..." 237-238.

of experience as the projective ideal of experience in its confrontation with the problematic.

In claiming that correspondence is always correspondence to the environment, Dewey is well on his way to further speculation, speculation that has a rather modern tone to it. In 1899 Dewey is interpreting this correspondence in overt biological terms. As any student of Dewey knows, this environment includes social and culture spheres as well. The result of this expansion will be the same for both positions, namely, "The question of validity is never an absolute one in the abstract sense" (p.149). We are always situated within an encompassing environment which we inherit and which is not of our making. Whether this environment is biological, or encompasses broad social and cultural themes as well, our decisions are already embedded within the possibilities our environment offers up to us. In this sense, our decisions will always be between "better" and "worse," between relatives, and never between absolutes.[21] Our ideal of continuity will be given concrete content, but this content will always be under the possiblity of reinterpretation as

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21. Laudan's work in the philosophy of science is an attempt to work out such themes. Consult his Progress and Its Problems, (Berkeley ,Los Angeles and London: University of California Press, 1978), and his Science and Values, (Berkeley, Los Angeles, and London: University of California Press, 1984) The latter work contains positive references to Dewey, e.g., "More than half a century ago, John Dewey... repudiated that conception of methodology which says it as an `affair ...of fixed first principles...of what the Neoscholastics called criteriology.' What is remarkable is that, despite massive evidence to the contrary, some philosophers of science still tend to imagine that methodology is protoscientific, that is, prior to and independent of the kind of empiricial inquiry which science represents." 40

experience projects itself into unknown environments, as experience anticipates itself and its methods of adaptation into the unknown future.

SUMMARY. Dewey tries to effect a reconciliation between psychology and logic, between descriptive and normative aspects of inquiry, by reconstructing both through a functionalist perspective. This perspective is essentially biological. If the distinctions and structures the psychologist reports can be understood only in terms of their effect on the well-being of the organism, in their functional significance as maintaining the adaptation of the organism with its environment, and if the logician, as the critic of these functions, must interpret his categories in the context of these functions, as projections of continuity to be restored, then a functionalist psychology and an instrumentalist logic, a logic which conceives of ideas as tools or instruments for carrying out these functions, must be flip sides of the same coin. What is cannot be divorced from the criticism of what should be. And, conversely, what should be cannot be divorced from what is. Experience "is" in its nonproblematic aspect an adaptation to its environment. Its well-being is had. In this sense the "end" of experience is nonproblematic. What should be is. Experience has fulfilled its biological telos. But if experience becomes problematic, if the fulfillment of this telos should be broken and the flow

or basic continuity of experience ceases to "adapt" to the situation at hand, then the means of this adaptation becomes problematic. Any critique of the means of reconstruction will be projected against what is the definitive well-being of the organism, its adaptation and continuity of response with its environment. What is, should be. But this means the standard through which experience criticizes itself must itself evolve as experience encounters ever growing challenges to its continuity. "It is only by a knowledge or the genesis and growth of the standard that we can get the standard to mean anything...The worth of the standard is found in the function which it exercises with reference to the historical processes which evolved it" (p.153).

Values and norms, broadly viewed, are to be interpreted functionally as controls upon experience. Facts are to interpreted functionally as called forth in the process of seeking for control. For Dewey believes that "facts" emerge out of the need to control experience, they are what experience needs to respond to in order to reconstruct its lost continuity. Likewise, "norms" emerge out of the need to direct this anticipation of control. Both "facts" and "values" are thus always under the possiblity of revision. We can misread the "facts" of the situation, and hence misunderstand the problem. But we can also misread the "norms or values" and hence misunderstand the solution. And now philosophy becomes the the proper interpretation of the

relation between controlling factors and facts controlled. It becomes, in Dewey's terms, essentially "ethical."

Dewey's whole focus in this section of the Lectures is to explore the relationship between descriptive inquiry and normative inquiry. Any theory of experience, as descriptive of the processes of life, must confront its normative dimension. Experience is not only a process to be described, but also a process which continually reconstructs itself according to certain norms. Any general theory of experience must incorporate both dimensions. If we get the general theory of experience wrong, then judgment, as a specific activity of experience, and expressive of its normative function, will be miscontrued from the outset.

This brings Dewey to consider, in detail, the general theory of experience which he is advocating, the general "logic of experience" which animates the underlying vision of his entire philosophy. We are led, then, to the following chapter. For it is in this chapter that Dewey explores the theory of experience which grounds his entire project.

IV. EXPERIENCE (Lectures: Chapter Three)

Any discussion of the nature and place of judgment in experience presupposes a wider conception of experience under which the specific activity of judging must be subsumed. If this general theory of experience is inadequate, its

defects will infect the entire analysis of judgment. If it is misunderstood, the analysis of judgment will founder on misconceptions.

With this in mind, Chapter Three occupies a natural place in the unfolding of Dewey's theory of judgment. His aim in this chapter is to address the conception of experience under which his specific examination of judgment is to be subsumed. In this sense, Chapter Three occupies a pivotal place in the Lectures. If Dewey's remarks about experience are misunderstood here, then the analysis of judgment which follows (Chapters 4-7) will be certain to bewilder.

Because Chapter Three is long (in fact it is the longest chapter in the Lectures) it is easy to lose sight of its general aim, i.e., the articulation and examination of the conception of experience Dewey wants to bring to the analysis of judgment. Moreover, because this theory must have been taken for granted, at least in its rough details, both by Dewey and his students, many essential components remain tacit. Special concerns seem to predominate over general perspectives. We are thus liable to lose ourselves in the details of a theory Dewey is, admittedly, selectively addressing.

Taking note of these difficulties, it is best to present Chapter Three in the context of Dewey's general theory of experience. It is hoped that through such a presentation Dewey's selective remarks may be better understood and read in context. But before Dewey's theory can be duly

appreciated it, in turn, must be understood against the context of traditional assumptions about experience that Dewey wants to avoid at all cost.

AGAINST THE TRADITION. Dewey's main objection to traditional theories of experience is that philosophers have emphasized a particular aspect of experience, isolated it, and abstracted it out of its functional context within the overall course of experience. To make matters worse, this very experience, which Dewey believes can be properly understood only in relation to the course of experience, has provided philosophers with a model for the interpretation of the whole of experience. This makes the tradition doubly at fault. Not only have philosophers misunderstood a part of experience by abstracting it from the whole, they have misunderstood the very essence of experience by modeling it after a defective part.

This mistake cannot be passed off as a mere academic misadventure. Dewey believes that any comprehensive error as to the nature of experience will inevitably find its institutional expressions. Furthermore, insofar as we continue to have an inadequate understanding of what experience is, we will continue to have an inadequate understanding about those methods meant to secure its precarious values.

What aspect of experience have philosophers misunderstood and misapplied? Dewey's answer is that philosophers

have overly emphasized the cognitive side of experience. The outcome of this mistake has been the modeling and interpretation of all experience in accordance with a highly abstract and artificial "knowledge experience."

Traditionally, the flow of experience has been individuated, for the purpose of its own elucidation and critique, into a ubiquitous subject-object, knower-known relation. But if all experience involves this relation, then all experience remains subject to the proper interpretation and resolution of the differential structure of the subject-object poles of experience.

For example, if experience is always a relationship between a knower and something known, how does the knower, as a subject, reach out beyond its own subjectivity into the realm of the object? Likewise, how does the object, as something known, as something independent of experience, make itself known to experience? How does objectivity leap into the subject? The poles of experience become problematic endpoints. The subject differs from the object and the object differs from the subject. How do we get them together? There appears to be a conceptual gap within this very description of experience as a subject-object relation. All that the subject has, it may be argued, is its own immediate experiences and sensations. Any leap beyond these immediate impressions is purely speculative. The world that we supposedly take for granted as objective and independent of the knower is simply a construction, an imaginative creation,

out of our immediate sensations. We cannot bridge the gap between subjectivity and objectivity. The object must be viewed as a construct of the subject alone. This conceptual gap between subject and object, knower and known thus collapses into an idealism of the subject. All is subjectivity. But this very idealism is parasitic upon accepting the subject-object, knower-known, distinction as the primary aspect of each and every experience. The logic of this idealist position, its solution or answer, is based upon accepting the distinction between subject and object as the problematic aspect of experience as such.

We cannot, it is assumed, interpret the subject-object distinction as arising within experience for the purpose of its own self-development and regulation, for the distinction between subject and object, knower and known, is primary to every experience. It follows us everywhere. Consequently, there appears to be some sort of gap in the very nature of experience itself. The gap between subject and object, knower and known, mind and body, seems to define the very nature of experience.

Such a view of experience locates the problematic nature of experience. Theories of experience arise as so many attempts to resolve the ever present tension between the poles of experience. Idealism and Empiricism emerge, in the end, as the two rival attempts to bridge this tension. Since Dewey wants to think beyond both philosophical schools, to make a radical break with traditional responses, an outline

of these responses is in order, particularly that of Idealism, for Dewey began as an idealist.

Idealism, in taking the subject-object structure of experience as primary, seeks to resolve the tension by stressing the operations of the subject. The knower, fully conditioned beforehand in terms of an immaterial agency, projects an objective environment in order to fulfill itself. The environment, as Object, thus becomes a by-product of the necessities of mind or pure reason. Experience is viewed accordingly in terms of its organizational activity. But this activity is organizational in a non-differential sense. It is productive not of this or that particular effect or consequence. but of an effect-in-general. Whether moral, aesthetic, or cognitive, it is the same for all experience, the same for all knowers.

Dewey believes this position demonstrates the essential paradox of Idealism.[22] Idealism tries to bridge the poles of

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22. The criticism cited here is found in Dewey's earliest writings and continues in his later work. Consult, for example, Dewey's early 1884 article "Kant and Philosophic Method," The Early Works, Vol.1, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1969), 34-47. The same line of criticism emerges in Dewey's 1906 essay "Experience and Objective Idealism," The Middle Works, Vol.3, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1977), 132-137. Both articles are critical of any position which views the activity of the subject as purely analytic, i.e., as removed from any essential connection with material (hence temporal) doings. The former claims that Kant failed to effect any true synthesis with material doings because thought is synthetic only when confronted by alien material, in itself it is purely analytic. The latter essay recasts this same criticism in the form of an attack upon any supposed non-differential activities of the subject. We can see in both essays Dewey's objection to any interpretation of activity which locates its effects in

experience by calling our attention to an undeniable feature of experience, its agency or active nature. Experience involves doing things, effecting things, trying things out. In short, Dewey agrees with Idealism insofar as it stresses the ongoing nature of experience as an activity, as a doing and practicing. But Idealism has so abstracted and non-differentiated the active nature of experience that it has effectively undermined its own initial insight. The active side of experience no longer defines experience as a historical process with differential involvements and concerns. It defines experience as an antecedent activity behind these involvements and concerns. And this activity is the same for each and every knower, each and every experience. The active nature of experience remains behind its overt manifestations. Idealism starts out as the champion of the claim that experience is primarily a doing, but it ends with the claim that this doing has already been done.

It follows that for Idealism the full elucidation of experience is to be found in the contemplation of its own non-differential activities. Knowledge, hence inquiry, is thus removed from any essential connection with the differential involvements of daily living. Knowledge is complete in itself just as soon as the non-differential capacity of experience expresses itself.

Empiricism, on the other hand, takes experience as essentially passive, fully conditioned by the material

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some antecedent doing, in any theory of action which claims that every act has already been done.

environment which impresses itself at every moment upon an emerging knower. The environment leaps into the knower, hence it alone is properly active. Experience becomes merely a record keeping tally of an environment dictating its terms to a purely passive and receptive vessel. The fulfillment of experience, its exemplar and standard, resides in keeping a correct tally, a duplicate edition of what already exists ready-made and outside the knower. Whether or not this tally is applicable to the course and action of experience is, once again, an afterthought. Knowledge is complete in itself just as soon as the purely active capacity of the object has fully expressed itself.

Idealism and Empiricism exhaust the alternatives open to us if we view experience exclusively as a cognitive affair between subject and object. If experience is always polar in structure, always present as a tension between subjective and objective end points, we are left with either the idealist approach of stressing the activity of experience as a means of resolving this tension, or the empiricist approach of stressing the passivity of experience.

Dewey finds both alternatives inadequate. The former resolves activity into some transcendental act, thus effectively denying the standpoint from which it arises, while the latter makes experience out to be a mere register, without sufficient explanation of why experience should ever try to duplicate what already is. Why not, for example, simply live out our days dreaming of what suits us?

But the assumption that experience is always already a relation between knower and known, the assumption of the ubiquity of one structural relation as definitive of the reality of experience, is deeply embedded in our philosophical heritage. This heritage is not merely one of academic squabbles, for it has informed, Dewey repeats, our institutional possibilities as well.

He is at pains to point out that what he wants to argue against is not a mere misadventure in interpretation, but a complete institutional network which has grown out of and which reinforces the false alternatives this philosophical misadventure implies. For both schools of thought have their institutional embodiments. For example, if we stress the agency of the subject and elevate mind into an immaterial essence, we can, claims Dewey, derive the associative idea of education for and of a leisure class preoccupied with its own class culture and self absorption. On the other hand, if we are prone to stress the passivity of the subject, we can derive the alternate idea of education for the masses in which certain features of the environment are ground in upon them and to which they must conform.[23]

Such in outline form is the theory of experience and its schools which Dewey wants to overthrow. The task is formidable not simply because Dewey wants to change the way

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23. A nice summary of Dewey's position on the bearings of theories of experience upon educational institutions is to found in his 1908 essay "The Bearings of Pragmatism upon Education," The Middle Works, Vol.4, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1977), 178-191.

we view experience (and hence offer up alternative institutional possibilities), but because the terms traditionally used in its analysis must be given new meaning. This, of course, can breed misunderstandings. Dewey never invented a completely new terminology in which to cast his thought. He never achieved a precise vocabulary for philosophic expression such as we find in Heidegger and Whitehead, two philosophers who share much in common with Dewey but who did introduce such change.[24] Therefore we find Dewey often complaining that his theory of experience is being misconstrued by his opponents. They insist upon reading old definitions into its exposition, and thus come away confused and bewildered as to Dewey's point. With this in mind, Dewey's alternative theory of experience must be presented with care.

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24. Dewey's dual themes of the primacy of practical experience and the primacy of continuity or process within experience are, respectively, major themes in the writings of Heidegger and Whitehead. Heidegger's discussion of Being-in-the-World and its primary involvement with the ready-to-hand reflect Dewey's claim that experience is first and foremost practical and involved. Cf. Heidegger's Being and Time (trans. McQuarrie and Robinson, London: SCM Press, 1962). Whitehead explicitly mentioned Dewey as one of the philosophers who inspired the project contained is his Process and Reality (ed. David Ray Griffin and Donald W. Sherburne, New York and London: The Free Press, 1978, xii). This inspiration may be more than a mere expression of joint interest. Whitehead's analysis of the becoming of an actual entity within the cosmic process and Dewey's analysis of an act of experience demonstrate similiar avenues of approach. Dewey's habit and Whitehead's datum of the actual world seem, for example, to be functionally identical in the explication of their positions. There are other similarities between the two philosophers.

DEWEY'S ALTERNATIVE THEORY. If, as the traditional analysis dictates, all experience is taken to be cognitive in structure, we are left with a dissolving, homologous conception of experience. The unit of analysis of experience, the conceptual handle by which we are to elucidate its structure and nature, is for every experience the same subject-object relation. Every conceptual cut in experience gives us the same but suspicious epistemological unit of reference. Furthermore, this conceptual unit of analysis has no intrinsic temporal width. That is, an experience at a moment in time has no necessary connection to prior or further experience.

In other words, the essential flow of experience, its course and development over time, is simply left out. Dewey's charge against the tradition is that it has ignored this most basic feature of experience. Experience is always on the way. It is always directed toward future issues, concerned and involved. It is, first and foremost, a temporal process involving change. We act and are acted upon in an ongoing succession. Dewey's radical departure from the tradition lies in his conviction that any analysis of experience must be an analysis of the change and process which experience is. Experience is not simply active nor simply passive, but involves a continuous series of doings and undergoings, of projections and reactions, in which it is lived and felt as lived.

Because the idea of experience as process, as change, as trying and undergoing, is fundamental to Dewey's entire theory of experience, we should avoid reading into it certain misconceptions. We should not, for example, simply subsume this process under the old subject-object schema of representation. Experience is always ongoing and is lived in its immediacy as a continuous process of doings and undergoings. There is no necessity for the subject-object schema to fully represent this fundamental engagement. This means that the category of process, of continuity, continuous and uninterrupted action and involvement, is the first category of experience for Dewey. Trying and undergoing, not subject and object, not knower and known, is the primary qualification of experience. Experience as lived is mainly a continuous flow in which there is no experienced separation between a subject who is experiencing and an object experienced. For Dewey, experience is lived first and foremost in an integrity of exchange in which there are no distinctions, but an overwhelming sense of concern for what one is doing and undergoing. We may, for certain purposes and under certain specified conditions, make a distinction for these lived experiences between subjective and objective elements, but Dewey's point is that as lived there is no such distinction in them. In this sense both Idealism and Empiricism are false alternatives. Experience is primarily a unity before it is a diversity that needs to be reintegrated by philosophical inquiry.

It follows that, for Dewey, experience is not primarily cognitive, the exact opposite of what the tradition has assumed. This means that the primary unit of analysis of experience is not the subject-object relation at all. Continuity of behavior, of action, is the central fact of experience. Experience is always already concerned with the next moment before any distinction can be wrestled from the previous moment. In fact, Dewey's problem appears to be the exact opposite of the tradition's. Instead of beginning with a conceptual unit through which experience is to be understood, Dewey's problem appears to be one of finding the appropriate unit of analysis for the articulation of experience. Experience in its primacy exhibits no apparent analytical unit for its conceptual interpretation. It is simply a life of activity and engagement, of preoccupation and concern. It is, as Dewey prefers to put it, a life of continuous behavior.

Dewey's assertion that experience is lived first and foremost as a continuity, as an integrity of action and reaction in the form of habit, and not as a differentiated subject-object puzzle, means that experience has a biological and non-cognitive aspect. It is important not to misunderstand this claim. For Dewey, experience is non-cognitive not because it is dumb or uninformed. He is not claiming that human experience is primarily on the same level as an oyster's. Experience is non-cognitive precisely to the degree in which it is non-problematic within the context of prior and future experience. As long as the flow of

experience is kept going, experience remains involved. There is no felt distinction between subject and object within this flow. Experience remains the concern of living. Its "biological" basis as the process of adaptation with the environment is preserved.

In this sense both the experience of the child and the adult are non-cognitive to the degree in which their experience, whether on the playground or on the floor of the New York Stock Exchange, remains unproblematic, habitual, and ongoing. Each moment of experience flows without interruption and breach in concern. Neither the child's experience nor the adult's experience is experienced as a subject-object, knower-known structure.

Yet there is a big difference between the experience of a child and the experience of an adult. To call both non-cognitive verges on glossing over a major change in the intellectual quality and depth of the respective experiences. Of course Dewey recognizes this. And now it becomes important to realize what the problem of experience is for Dewey.

As long as experience remains habitual, flowing, and essentially non-cognitive, there seems to be no unit for the analysis of experience. There is simply nothing we can say to elucidate experience except to point out that as a matter of fact it flows with the concern of the moment and the next moment. But because experience demonstrates within itself qualitative intellectual leaps of development, the problem which faces Dewey is to account for such qualitative leaps.

How can we account for the development and direction from relatively uninformed experience to an informed and enriched experience? What is happening in the process of experience itself (which remains essentially habitual) that disrupts such habits and gives rise to higher levels of thinking and inquiring? What, in effect, is the difference between relatively uneducated and educated experience?[25]

It is important to realize what is at stake here. Every theory of experience is determined by what it takes as problematic in experience. Since the traditional standpoint views experience as universally cognitive in structure, its theoretical articulation must be understood as so many attempts to bridge the gap between subject and object, knower and known, which this standpoint implies. In this sense, Idealism and Empiricism seem to exhaust the alternatives open for any attempted resolution. But the same logic applies to Dewey's conception of experience. Since Dewey believes experience is not primarily cognitive, as essentially beyond any idealist or empiricist resolution, this does not mean that experience is simply non-problematic. What it does

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25. This is the basic theme of Dewey's Democracy and Education (New York: Macmillan Company, 1916). Dewey viewed this work as the summation of his current philosophic reflection. "Although a book called Democracy and Education was for many years that in which my philosophy, such as it is, was most fully expounded, I do not know that philosophic critics, as distinct from teachers, have ever had recourse to it." Consult Dewey's 1930 essay "From Absolutism to Experimentalism," The Philosophy of John Dewey, ed. John J. McDermott (Chicago: University of Chicago Press, 1981), originally published in two volumes, 10.

mean is that Dewey locates the problematic nature of experience in a radically different arena.

For Dewey, experience as a whole, as a process of concerned involvement, is not problematic from the ground up, as it becomes when we adopt the traditional standpoint. But what becomes problematic under Dewey's description of experience is that experience evolves. The child becomes a man. And one man's experience may be cognitively enriched in comparison with another man's. Compare, for example, the experience of an astronomer gazing at the winter sky with the experience of someone completely uninformed of astronomical knowledge. Or compare the experience of a geologist walking down a gravel lane with the experience of a person completely uninformed about the nuances of geologic history. Both the experience of the astronomer and the geologist are not primarily cognitive. There is no problematic subject-object distinction which compromises the unproblematic rapture of an enriched and engrossing experience which is had by each. The experiences are different from the general course of mundane affairs precisely to the degree in which they are inclusive of environmental meanings not available to ordinary experience.

These considerations characterize, for Dewey, the problematic nature of experience. The problem of experience is not how experience can reach an object, nor how an object can impress itself upon a subject, but how experience evolves, grows, out of narrow, parochial concerns and

involvements into relatively broad, informed and intelligent patterns of response and feeling.

THE "ACT" AS THE NEW UNIT OF EXPERIENCE. Any philosophy which takes the flow and movement of experience as primary faces the problem of how this flow and process of experience is to be fruitfully analyzed. If experience is generally always ongoing and engaged, how is it possible to `catch it?' What unit of analysis is appropriate and effective for the elucidation of this flow?

Dewey's answer is a direct outcome of what he takes as problematic to the flow of experience. Since we are always active in one way or another, the real philosophic problem is never one of how the flow of experience is initiated. Rather, it resides in the fact that this flow at times reconstructs itself, evolves methods for the restoration of continuity. In short, experience emerges as relatively more adept. This means that the flow of experience possesses an adverbial quality. It is not a mere uniform flow, but one which continuously develops and matures in its various attempts at overcoming breaches in habit. It is a kind of activity.

This adverbial, developmental, quality of experience is for Dewey the definitive aspect of experience which needs to be explained. Experience regarded not merely as a flow, but as an evolving flow, is the correct focus of philosophic

interest. But at the same time this statement provides Dewey with a new unit or cut in experience by which to elucidate its nature. We are to "catch" experience not by abstracting some non-temporal and static subject-object relation. Quite the contrary. We can "catch" experience as an object for philosophic analysis only by overtly acknowledging its status as a kind of process. This process is fundamentally a developmental process. The cut in experience we must make, for the purpose of its elucidation, must retain the temporal and dynamic qualities of change which development implies.

Dewey's new unit of experience, the handle by which we are to analyze experience, is therefore a unit of development. Because this unit implies change, an actual transformation in experience, Dewey often refers to this unit as an "act" of experience.[26] This "act" of experience represents a complete readjustment and total co-ordination of experience to a particular difficulty. Of course many problematic situations are complex, they contain a series of particular difficulties. Hence acts can be contained within other acts during the course of reconstructing the flow of experience.

An act of experience is essentially a temporal process of development which has bearing upon the course and direction of the flow and concerns of experience. It marks the difference between qualitatively distinct flows of behavior.

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26. Dewey's new unit of experience first emerges in his 1896 article "The Reflex Arc Concept in Psychology," The Early Works, Vol. 5, ed. Jo Ann Boyston (Carbondale: Southern Illinois University Press, 1972), 96-109. Dewey later retitled it as "The New Unit of Behavior." In essence, the act of experience is simply the unit of learning.

This act therefore takes time, it is not a spontaneous, transcendental expression of an antecedent mind. And its analysis may be comparatively simple or extremely complex.

For example, we may locate relatively simply acts of experience in early infancy. These acts are simple only insofar as they are preliminary to any claim that the full organism, as a coordinated center of reference, has come into play. Consider the experience of looking. This is an act of experience because it involves a distinct change in the direction and depth of experience. The achievement of being able to look at something involves, among other things, the ability of the eyes to work together (an achievement of coordination), the capacity to fixate or focus on an object instead of staring blankly into space (another achievement), the ability to follow a moving object and control the movement of the eyes with reference to changes in light (still another achievement), etc. This simple act of looking, which transforms the experience of the child, involves a series of minor acts or coordinations which effectively change the quality of the experience. Looking, as a developmental unit of experience through which experience emerges transformed, betrays itself as a series of minor acts in which the direction and concern of experience is modified. The same analysis could be offered for the complex acts of hearing or touching since both involve minor acts of muscular coordination.[27]

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27. See, for example, Dewey's 1899 essay "Principles of Mental Development as Illustrated in Early Infancy," The Middle

Dewey's point is that even before we have the appearance of an organism functioning as the center of reference and coordination for various activities, we have separate and independent functions developing apart from any center of reference. The full organism comes into play only when the separate acts or units of development are coordinated together in a fuller act of comprehensive adjustment. When the child integrates the looking with the hearing and the touching into a comprehensive, interrelated, and coordinated experience; when the looking means something to the hearing, and the touching means something to the hearing and looking, then we have the emergence of an organism, a center of reference in which each unit of development is anchored in a unity of concern.

These remarks exhibit the complexity of Dewey's program. Dewey's theory of experience is not only an alternative to the misadventures of traditional empiricist or idealist problems. It is, in addition, an extremely complex attempt at rethinking the very nature of experience from the ground up. The problem of experience is to account for its change and evolution into more complex and integrated processes of experience. The unit of analysis for its conceptual elucidation is, accordingly, the unit of change in experience - change understood as a developmental shift in the focus and direction of further experience.

Works, Vol.1, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1976), 181-184. This article represents the best working model of Dewey's new approach to experience.

Of course in the adult this new unit of experience is for the most part already highly complex. The adult experience is already funded upon the processes of development and adjustment contained and preserved within the previous stages of infancy, childhood, and adolescence. Acts of experience are therefore built upon, and in response to, previous acts of experience within its overall flow. In this sense, Dewey conceives this flow of experience as involving a continuous coordination and adjustment of past habits (the means or medium of experience) to present situations demanding novelty of response (the end or end-in-view of experience).

What remains crucial for our purposes is Dewey's conviction that the analysis of judgment must be subsumed under this complex conception of experience. Judgment must be viewed as an instance of the process of coordination and adjustment under which experience evolves in depth and intensity of feeling. Judging, in effect, is an act of experience which occupies an essentially transitional role in the the flow of experience. It is a highly complex unit of development in which experience undergoes a re-evaluation and reintegration for the purpose of restoring the continuity of life at a higher level. Thinking remains, in Dewey's Yankee idiom, a "tool" of experience.

But this means that Dewey has, in effect, reinterpreted the gap within experience which the traditional theory had taken as definitive for all experience. The problematic

nature of experience does not lie in the presumed breach between a subject "in here" and an object "out there." The gap in experience is not, for Dewey, so cosmic and final as the tradition had assumed. If there is a breach within experience it is not in each and every experience, it is between past and future modes of behavior. It is a gap within our modes of response, reflecting an interruption in the present flow of behavior and the active search for its re-integration and development into higher and more comprehensive patterns of experience.[28]

THE DEVELOPMENT OF CHAPTER THREE. If we read Chapter Three against the background of the above remarks concerning Dewey's general theory of experience, the chapter's internal logic becomes readily apparent. We can better understand why selective issues are addressed, and why these issues follow upon one another in a certain order of emphasis. A brief outline of these issues is in order.

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28. In fact, the gap within experience is located by Dewey not in each experience but involves the means-end fluidity of action. If Dewey is cosmic at all it is in his claim that the flow of experience relies upon habits of response to situations which are taken as settled. But we can always be surprised. The situation may not mean what we have habitually thought it to mean. "The thing meaning is one thing; the thing meant is another thing, and is (as already pointed out) a thing presented as not given in the same way as is the thing which means. It is something to be so given. No amount of careful and thorough inspection of the indicating and signifying things can remove or annihilate this gap." "The Experimental Theory of Knowledge," (1906), The Middle Works, Vol. 3, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1977), 122n.

Dewey begins the discussion where we should expect it to begin, with the presentation of experience as primarily practical and involved (pp.156-169). There is no felt distinction in this experience of any overt subject-object relation. "In the concrete experience they are so fused or welded together that this distinction does not present itself at all" (p.157). Furthermore, Dewey views this primary aspect of experience as a means-end continuum of behavior. The flow of primary experience is a flow between the means and ends of action which define experience as an engagement.

Yet we cannot ignore the fact that the distinction between the subjective and objective does arise in experience. Moreover, it appears as if certain sciences characterize themselves in terms of this very distinction. Natural science, it is said, studies the object, whereas psychology studies the subject.

Dewey's discussion therefore evolves into an analysis of the various standpoints we can adopt in understanding our experience (pp.169-222). His claim is that the standpoints of natural science and psychology do not reflect different levels of being. Rather, the distinction between the subjective and objective is a functional one which emerges during the course of reconstructing the flow of practical life. This statement needs careful explanation.

Life, for Dewey, is funded with meanings which define it as a life of involvement in a world of immediate concern. The means-end structure of practical life goes on without

any thematic concentration upon the fluid structure which defines it.[29] Activities mundanely imply other activities. But when this stream of engagement becomes problematic, when we do not have recourse to the funded sense of things upon which our activities are based, then there is an active search for what is at fault, for what interrupts the primary continuity of action. This means that there is an explicit awareness of the means-end structure which has hitherto been implicit in the fluidity of action. The implicit structure of experience, its means-end relativity, becomes explicit in the process of reconstructing the flow of concern.

This rupture in experience gives rise to two natural abstractions: means and ends. We can focus on the means in abstraction from the ends or on the ends in abstraction from the means. The former abstraction gives rise to natural science, the latter abstraction evolves into the science of psychology.

We can abstract the means of experience, what Dewey refers to as the "background" or "mediate" nature of lived

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29. Dewey's radical break with the tradition is nowhere else more apparent. We cannot begin to understand Dewey unless we first recognize that he wants to replace the traditional subject-object relation, which has defined experience for philosophy, with a new means-end structure which he believes exhibits the primary flow of experience. The latter distinction is fundamental to the analysis of experience, not the former. Notice that if this is the case, the primary philosophical problem is not the explication of an alleged <u>unity</u> between subjective and objective poles, but lies in the analysis of those situations in which the means-end structure breaks down, and in the projection of various possibilities for the restoration of a genuine and effective temporal continuity within experience. The achievement of such a continuity is, for Dewey, a successful <u>act</u> of experience.

experience, as that aspect of implied connections or meanings upon which we base our activity and which gives it its momentum of direction. "The mind is not an empty blank, but always has a background, an already complex experience. There is always a certain direction of activity, a momentum, already there, and [which] must be taken into account" (p.213).

We can ask, for example, whether our particular difficulty concerns the background of implied connections which we have taken for granted and which, collectively, constitute the "momentum" of our activity, i.e., the meanings which define our environment of action. (Dewey sometimes refers to this as the "content" of experience.) Does this sound, for instance, which interrupts my reading, mean a thunderclap, or is it really a burglar's misstep? What, to force the point home, is its connection with prospective action?

Dewey's claim in Chapter Three is that such focus upon the "background" of lived experience, when it becomes thematized, is the basis for natural science. The objective does not denote a separate and unique realm of being. Rather, it is an abstraction upon one practical pole of experience. If we are to preserve the means-end continuity of experience, then reflection upon the means or medium of connections which informs our habits is one method necessary for the restoration of activity when it breaks down. "The physical object, the physical world, is the world of presuppositions,

the world which must be taken into account if it is to proceed with economy, certainty, effectiveness, value, meaning." (p.222) Raised to its highest abstraction, the objective is simply that which objects to or controls our various activities. It is not divorced from ends per se, but is understood as that which is relevant to any end or prospective action. It is what has to be taken into account.

On the other hand, we can abstract the ends of experience, what Dewey calls the "foreground" or "immediacy" of lived experience, as that aspect of interest, or of value, or of concern, which determines the way in which we experience the world, the way in which the "background" of implied connections is approached (p.173). This background is always caught up in some activity, there is always some interest or value which informs it and which defines for us what we are doing. We are always doing something, always approaching the world within some form of concerned engagement.

Dewey's claim is that such focus on the ends of experience, when it becomes thematized, is the basis for psychological science. But he objects to any claim that this science is therefore properly understood as a science of a subject which confers value upon an object. The object is always already valued, and remains valued in the course of concerned and interested experience (p.173). The basis of value is not some abstract subject. Rather (and this defines Dewey's reinterpretation of psychological science) the proper object of psychology rests upon the fact that ends,

interests, concerns change in the development of experience. This unit of change is the proper domain of psychology. If we are to locate the psyche anywhere, it will not be in some antecedent value-giver or some subjective geometrical point from which concern emanates. For experience is never unconcerned. It never needs something outside it to confer value or interest. Dewey, effecting a radical change, locates the psyche in the processes of re-evaluation or change in which experience develops. The psyche, as object of psychology, is not an antecedent existent. It is the adverbial aspect of experience which is the function of readjustment and coordination as a response to the problematic.[30] The mind is not a thing before experience. It is a functioning aspect within experience which determines, and is a determined by, the adequacy of response for reconstructing the continuity of experience. The response can be of varying degrees of adequacy. Hence, for Dewey, the varying degrees in intelligence as a determinant of behavior.

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30. The statement that the psyche is not a thing, but a quality of behavior (not a noun, not a verb, but an adverb) is further explored in Mead's 1903 article "The Definition of the Psychical," The Decennial Publications of the University of Chicago, Vol. 3, part 2, (Chicago: University of Chicago Press, 1903). Dewey, not surprisingly, was impressed by this article. Herbert Schneider claims that this article, along with Dewey's "Logical Conditions of a Scientific Treatment of Morality," (1903) and A.W. Moore's essay "Some Logical Aspects of Purpose," (1903), all published in the same volume, constituted the first systematic exposition of the attempt "to abandon the idealistic metaphysic of activity for a physiological analysis of the act of judgment." Consult, his A History of American Philosophy, 2nd ed. (New York: Columbia University Press, 1963), 455-456.

Dewey's entire discussion of sensation cannot be understood without these remarks in mind. Sensation as an aspect of the psyche is an aspect of change of focus, part of the unit of development between different directions of experience. It is, to force the point home, a function in the development of a new experience. To consider it as a thing in itself, as an object of regard independent of its place in experience as a stimulus for the redirection of attention, is to view it as the natural scientist must, but not as the psychologist must. The sensation as a thing in itself is simply a thing relevant to any future experience. But the sensation as a stimulus must always be viewed in the context of a redirection of attention for some particular experience. The psychologist focuses on the role or function in the play of experience, in its changes, whereas the natural scientists does not. Blue, as a condition of any experience of blue, is for the natural scientist simply so many vibrations per second. But blue as a real focus or redirection in attention, as denoting a change in the flow of immediate experience, as a stimulus for change in experience, is the proper concern of the psychologist. In this sense blue is not a thing as much as it is a range of experiential responses which delimit a passing into and out of the focus of attention. It is one of the "pivots" upon which experience turns (p.232).

Dewey's ultimate point in raising these issues is to show that abstractions concerning means and ends are for the

eventual control of experience (pp. 222-244). When experience is broken in its continuity we may be either in error as to the background of meaning which controls experience and gives it a "momentum," or in error as to the foreground of the activity we are concerned with, the very values of experience which engage our attention. As far the control of experience goes, "We cannot takes values just as we find them any more than we can go ahead and act apart from the objective conditions" (p.225).

SUMMARY. When there is a gap in experience, this gap is between prior, habitual, modes of response and adjusted, reconstructed modes of response. Experience is basically a process of evolution, of pulses, in which there is a growth in the ability to respond to wider and wider environments of concern. In one sense this means that philosophy, insofar as its sole justification is the elucidation of experience, is always a philosophy of education.[31] The analysis of experience is the analysis of problems which create a breach in the non-cognitive flow of experience, and whose resolution demands a reconstruction in the habits and beliefs which set the problem before experience. This radical departure from the tradition means that the analysis of thinking, or judgment, must be likewise revised. Dewey's discussion of judgment demands a total shift in philosophical perspective.

31. Cf. Dewey's Democracy and Education, (New York: MacMillian Company, 1916), 321-332.

What follows is a record of one of his first attempts to effect such a shift.

V. JUDGMENT (Chapters Four - Seven)

JUDGMENT AND EXPERIENCE. Before exploring Dewey's remarks about judgment we should ask ourselves a preliminary but fundamental question. Why should Dewey focus so much on judgment? If Dewey's primary aim is to reconstruct the basic categories by which we interpret experience, why discuss the nature of judgment? What has the nature of the subject, predicate and copula of the judgment to do with the theory of experience?

Dewey raises the question of the nature of judgment because he believes its proper analysis is one of the pivots upon which the interpretation of experience must turn. To interpret experience means to judge experience. And to judge experience means to bring to the flow of our experiences some process of articulation and conceptualization. We pass judgment upon experience, and in so doing discriminate that it is true or false, moral or immoral, etc. For Dewey, the activity of judging is the process by which experience introduces within itself distinctions and discriminations. To misunderstand the nature of judgment is therefore to misunderstand the nature of the process by which experience articulates itself, understands itself, and claims knowledge.

In this sense, if we get the theory of judgment wrong we get everything wrong. Dewey believes that if we misunderstand the nature of judgment we in fact misconstrue how experience learns and how this knowledge represents, and is to be understood as, a response to those conditions within experience which stimulate the search for its own articulation. Insofar as we get this wrong, the whole of experience will become infected with an inadequate comprehension of the self in action. If our theory of knowledge is inadequate our theory of experience, as an expression of our knowledge claims, will suffer the same inadequacy.

In light of these remarks Dewey believes we can draw two conclusions. The first conclusion is that every theory of experience presupposes a theory of judgment. The second conclusion is that there is an independent test for determining the adequacy of theories of judgment, and hence for indirectly determining the adequacy of theories of experience.

A <u>theory</u> of experience is, for Dewey, nothing more than an articulation of experience, an understanding of experience. It presupposes, therefore, some position as to the nature of judgment. Some notion of what it means to understand, to know, must be involved whenever we claim to understand or to know experience. No theory of experience will be complete until it addresses the theory of judgment which it presupposes. Of course most traditional theories of experience explicitly recognize this dependency. But the

result has been an almost total focus on cognitive experience in abstraction from the rest of experience. We have to know what it means to know before we can go about our business of knowing experience.

But of course there is a problem here. If every theory of experience presupposes a theory of judgment through which experience is subsequently comprehended, there must be some criterion by which to decide the adequacy or inadequacy of theories of judgment. If there were no such criterion we would simply be left with rival theories of experience, rival theories of what it really means to know what experience is.

But to claim that there is such a criterion seems to put us in the difficult situation of judging the nature of judgment. How can we decide what it means to know without simply begging the question? Traditionally, philosophers have tended to beg the question on this issue. When, for example, Hume asks us to test the meaning or adequacy of our ideas by the impressions which ground them, he is not giving us a test of his positon but simply announcing it. William James, sensing this tendency to beg the issue at hand, finally succumbs to the idea that different theories of judgment must be projections of basic personality types.[32]

Dewey's approach to this problem is novel and indirect. To approach the theory of knowledge directly and head-on

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32. "The Sentiment of Rationality," Essays in Pragmatism, ed. Alburey Castell, (New York: Hafner Publishing Company, 1948), 3-36.

seems to involve us in the unfortunate task of using theories of knowledge to validate themselves. For how can we decide what it means to know without somehow using our particular theory as the grounds for our decision? Dewey's novel turn is a turning toward the consequences of theories of judgment. If judging is the activity through which experience articulates itself and makes knowledge claims what, if anything, would be the concrete consequences of misunderstanding this activity? To misunderstand judgment means to misunderstand the nature of our cognitive experience, i.e., the experience through which we articulate and conceptualize the whole of experience. If we get this wrong are there any sure signs or symptoms of our mistake? Can we test our theories of knowledge indirectly through their consequences?

Dewey's answer is yes. If we misunderstand the nature of judgment, the nature of that activity of experience through which we articulate and conceptualize the whole of experience, we shall end up pitting experience as lived against experience as known. Dewey believes that any misconstrual of the nature of judgment must emerge in a duality between the cognitive and the vital aspects of our nature. What we "know" will be at odds with who we "are." For example, we "are" beings who live ethically, religiously, aesthetically. But we "know" these values are not actual qualifications of reality. Our lived reality is in constant tension with our known reality. Theory becomes divorced from practice, cognitive claims divorced from the testimony of

daily living. In this sense Dewey believes we have gone wrong in our interpretation of judgment if this interpretation disrupts experience and introduces dualities within it.

But this means that Dewey's primary postulate for philosophical reflection upon experience is nothing less than the absolute faith in the continuity of experience. If we ask Dewey why we should accept this postulate, why we should believe there are no inherent dualisms within experience, we would probably be told (to anticipate Dewey's own theory of ideas) that it is simply a working hypothesis. As an hypothesis, the continuity of experience is nothing more than a provisional point of view we take with respect to experience as a whole. But as a working point of view it must be susceptible to the question of whether or not it indeed works. But works with respect to what? Dewey's sole grounds for claiming this hypothesis works is that the subject matter of experience becomes less problematic when we adopt this point of view. But if we read this to mean that there will be no insurmountable dualisms, then the term "work" becomes synonymous with "bridging apparent dualisms," i.e., effecting continuity in experience. Dewey's position therefore seems to be that the postulate of the continuity of experience can be tested only by seeing if it works, but whether or not the postulate works is to be tested by whether it effects a continuity in experience.

Dewey does not, therefore, ultimately escape the charge of begging the question. Nevertheless, he does give

us a new general criterion by which to judge theories of knowledge, and hence for framing a theory of experience as an expression of knowledge. The new criterion is the postulate of the continuity of experience. This postulate, as the point of view we are to bring to the analysis of any subject matter, has both a general and a specific meaning. 1) In its general sense, the postulate simply demands that we always regard experience as a functioning unity in which there are distinctions but no inherent dualities. Any theory which claims knowledge but compromises this point of view by introducing dualities within experience is to be rejected. Dewey is committed to the position that experience is not a collection of disparate and disjoint functions. It has a general, unifying telos. There is, in other words, a "general logic" to experience. He believes, moreover, that experience in its most general and unifying aspect is the struggle to maintain an effective co-ordination with the environment. Different functions are discriminable within experience, but each has a role to play in either maintaining the continuity of experience with its environment, or restoring this continuity when it is temporarily compromised. It is in this sense that Dewey interprets the ultimate unity of function within the various processes of experience. But as a general criterion, a theory of knowledge must be compatible with some underlying unity of function. Dewey's particular interpretation of this unity is not an essential consequence of this requirement. 2) In its

specific sense, the postulate of continuity simply demands that knowledge must be viewed as a particular function of experience which has its place within the functioning unity of experience as a whole. This means that judgment (the "specific logic" of experience) must be understood as continuous with the rest of experience, not as a separate faculty or metaphysical gift of the gods which is unrelated to our animal life.

It is clear that a complete theory of judgment must combine the general and the specific logic of experience.[33] There must be a constant dialogue between the functioning unity of experience, its fundamental telos, and the articulation of this telos, its specific or particular logical token. A theory of judgment must be compatible with some underlying unity of function of experience, but how this unity is best expressed is constrained only by the requirement that the particular function of expression must itself be a factor in this underlying unity of function. This is, in summary form, the general outline not only of Dewey's abstract philosophical commitments, but an outline of the general methodology these commitments require of Dewey.

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33. The distinction between a general and specific logic is outlined in Dewey's first chapter in Studies in Logical Theory, "The Relationship of Thought and Its Subject-Matter," Middle Works, Vol.2, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1976), 298-315. The principle of continuity in experience is the fundamental presuppostion behind Dewey's functionalism.

THE CATEGORIES OF JUDGMENT. The logical expression of experience is the judgment. The basic categories operative in the act of judgment are, for Dewey, the categories of the subject, the predicate, and the copula. In the Lectures these topics are the themes of Chapters Five, Six, and Seven respectively. Since we use these categories in interpreting our experience, in our judgments upon experience, a proper understanding of their role and function within judgment is necessary. Dewey believes that we understand judgment just to the extent that we understand how its basic categories function. Should we misconstrue these functions our understanding of judgment will be inadequate. To misunderstand how these basic categories actually operate will result in a distorted understanding of the nature of judgment and hence in a distorted articulation of the whole of experience.

Dewey's project in the remaining lectures can now be placed in its proper context. Dewey wants to reconstruct how we articulate experience. To reconstruct experience means to interpret experience in accordance with the postulate of continuity. But the process of articulation is itself one of the many functions of experience. Any reconstruction of experience must therefore reconstruct the function through which experience articulates itself. Since it is the function of judgment to articulate experience, this means Dewey must interpret judgment in accordance with the postulate of continuity. But this in turn means the basic categories of judgment, the subject, the predicate, and the copula, must

be given new interpretations insofar as philosophers have ignored the continuity of experience. Hence these categories have been traditionally misunderstood. Before presenting Dewey's initial remarks about how such a reconstruction of these categories will look, a short discussion of what kind of interpretation Dewey is arguing against must be given.

THE TRADITIONAL VIEW AND ITS PROBLEMS. Judgment is the function by which knowledge is obtained. But how are we to understand this function? The overwhelming and traditional response has been to claim that judgment operates like a mirror. Judgment is the function of mirroring. It is not the mirror itself, if we take this to mean something which can be clean or dirty, material or immaterial. Nor is it what it mirrors. It is the act of mirroring, a third term.

We have, for example, the conception of reality existing "out there" independently of our ideas "in here." With respect to this independent reality it is the function of judgment to mirror or copy it, to get it right and express it truly. This is the true end of judgment. On the other hand we have our ideas "in here," our meanings and conceptions which make up the texture and substance of the mirror judgment must use. This world of ideas is the means of judgment.

Given these notions of an independent reality and a world of ideas the complete function of judgment can now be

stated. It is the function of judgment to build up a world of ideas which truly represents reality. We have the world of existence on one side, the world of meanings on the other side. Judgment is the activity which tries to effect a correspondence between these two worlds.

This threefold division is expressed and retained in the categories of the judgment. The subject of the judgment states the reality, what is mirrored in the act of judgment. The predicate states the idea, the means by which reality is mirrored. Finally, the copula of the judgment expresses the activity of representation itself, the act of mirroring.

This interpretation of the basic categories of judgment is simply a natural consequence of the traditional view that knowledge is the correspondence between reality and ideality. But if we accept this view we are at once caught between two extremes. In the act of judgment does the real determine the ideal (our mirror is clean and polished) or does the ideal determine the real (our mirror is pretty dirty)? Unless we have some independent standard how shall we ever know whether our mirror is clean or dirty? Does it even make sense to make this distinction? The problem boils down to the issue of whether or not there can be a guarantee that our representation is correct, or in even stronger terms, whether it even makes sense to speak of the representative function of judgment. Realists claim it does make sense. Idealists claim that after all is said and done we

simply have our ideas and the act of combining our ideas in coherent patterns.

Dewey's whole project is to steer clear of such disputes. And this can be done only by reconstructing the nature of judgment i.e., by reinterpreting the function of judgment in accordance with the postulate of continuity. If there are no absolute dualisms, then the function of judgment cannot be understood in terms of dualities. To speak of the world of existence and the world of ideas as <u>two</u> worlds, to think of the subject of the judgment and the predicate of the judgment as external to each other, as there before judgment connects them, is to create insurmountable problems for any philosophy. In this sense Dewey is sympathetic to the claims of the idealists. But the idealists have purchased the principle of continuity at the dubious expense of claiming that all is Mind, a claim parasitic upon accepting the terms under which the problem of judgment was initially formed. And these are the very terms which Dewey wants to reconstruct.

<u>DEWEY'S RECONSTRUCTION OF THE PROBLEM</u>. Dewey's aim is to first reconstruct the <u>problem</u> of judgment. He is not denying that there is a problem. Rather, he believes philosophers have misunderstood the true nature of this problem.

The problem of judgment arises from the assumption that knowledge is the pictorial correspondence between the real and the ideal. "How can fact fuse with idea...? Here arises the whole metaphysical question of the relation of the real to the ideal" (p.273). Finding the true nature of this relation is the problem of judgment, and Dewey stands firm with the tradition in locating the problem here.

But Dewey believes it is easy to misunderstand how this problem is to be interpreted. The tradition, he claims, has gone wrong in trying to understand the true nature of the relation between the real and the ideal (the very nature of judgment) because it has ignored how this distinction arises in the first place. Indeed, the tradition has assumed from the outset that the distinction between the real and the ideal is given to judgment, and hence external to judgment. On this view, judgment is an act which comes after the distinction has been made. The problem of judgment becomes the problem of how to connect the disparate worlds of existence and meaning

Dewey recontructs the problem of judgment by reframing the question. Instead of asking how the world of fact and the world of idea can fuse to give us a pictorial representation, he wants to know how this distinction actually emerges within experience. "What we want is a theory which will deal not only with the connection of existence and meaning but a theory which will give us as well the differentiation of existence and meaning" (p.277).

Why is the "differentiation of existence and meaning" a problem? Dewey's answer is that this "differentiation" is a problem because primary experience does not exhibit it. There is no distinction within ongoing lived experience of an ideal sphere set apart from a real sphere. Experience first and foremost is a continuum of involvement, of simple doings and undergoings. It is, to put the matter simply, a life of stimulus-response patterns expressed as particular habits or, when these habits are shared and certified, as social custom.

This means we cannot account for the distinction between fact and idea by appeal to primary experience. "As long as experience is organized on a practical basis each experience stimulates or evokes the next, each succeeding experience is adapted, adjusted, to the preceding. But there is no question of this stimulation and response in consciousness. The one evokes the other without this process as process coming to consciousness" (p.247). In other words, every de facto stimulus is already under some interpretive response. "The one evokes the other without this process as process coming to consciousness." The "fact" we respond to is always already a "meaning" which evokes the next act.

Another way of putting the problem is that in primary experience "existence and meaning" are so fused together in terms of "stimulus and response" that it makes no sense to distinguish between these terms. As long as experience is a continual flow of engagement there is no "stimulus" apart

from a "response" and no "existence" divorced from "meaning." [34] It is not as if these distinctions were there waiting for consciousness to uncover them. Dewey's point is quite fundamental on this topic. The distinctions simply do not exist in primary experience. Experience is first and foremost a stream of continuous behavior. There is no indeterminate "stimulus" which needs a determinate "response," there is no bare "fact" which needs a determinate "meaning." Every "fact" is at the same time a "meaning," every encounter with the world is a projection of possibilities for action.

To force the point home, Dewey's position can be expressed in the following terms. As far as primary experience is concerned, there is no question about the real nature of the world simply because there is no question about the real nature of the world. Reality and its nature or meaning are so fused together that we have one integral unit of behavior, the unit of lived experience. Life is simply, at its basic level, an activity of involvement with the present moment in terms of its bearing upon the next moment. We are always projecting into the future upon the basis of our present interpretations of the situation.

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34. "In these instances there is no question of consiousness of stimulus as stimulus, response as response. There is simply a continuously ordered sequence of acts, all adapted in themselves and in the order of their sequence, to reach a certain objective end, the reproduction of the species, the preservation of life, locomotion to a certain place." " The Reflex Arc Concept in Psychology," (1896), The Early Works: 1882-1898, Vol. 5, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1972), 104.

Dewey's reconstruction of the problem of judgment therefore takes the following turn. The initial problem of judgment is not to effect some connection between "stimulus" and "response," between the "reality" we respond to and the "ideality" of our response. We will miscontrue the function of judgment if we take the distinction between fact and idea, existence and meaning, as given to experience. Experience itself, in its primary form, is void of these distinctions. Rather, the initial problem of judgment is how to account for these distinctions, distinctions which define the very terms under which judgment operates. But to give such an account is to give a theory of judgment itself. For if the categories under which judgment is to be understood are to be revised, judgment itself must be reconstructed. In other words, if the tradition has interpreted the act of judgment as the act of mirroring reality by ideality, fact by idea, an account must be given of how these distinctions arise. Where and why does experience discriminate between the real and the ideal, between fact and idea? Because Dewey believes these distinctions are not primary, he must give a new interpretation of judgment. for the tradition has always accepted these distinctions as given to judgment, hence prior to its operation. But if they are not given prior to judgment, we cannot understand judgment as a simple act of mirroring "parts" of experience which as yet do not exist.

RECONSTRUCTING THE NATURE OF JUDGMENT. Dewey's reconstruction of judgment is based upon an absolute faith in the continuity of experience. Experience is primarily a flow of interest and involvement. But this flow can be interrupted. "When the series of adaptations or acts fails, then this adaptation or process of adjustment comes to consciousness as a problem" (p.247). When experience ceases to maintain its continuous equilibrium of everyday habit, there is a temporary break in the continuity of experience. This breach in experience creates a felt need to restore this continuity, that is, a problem. Our interest carries us on to the next moment, but there is something the matter, something which diverts the inertia of habit and expectation, something which demands the focus of our attention here and now. The temporal continuity of our particular project is thus compromised, but the need to go on is still present. We thus have tension within experience. This tension is a tension between our past expectations, our habits of response which project themselves as initial and unquestioned foundations for future action, and our present inability to immediately act upon the basis of these habits. Such tension within experience is the tension of needed reconstruction. It is not merely an opposition of the past and the future clashing in the present. It is the call for a determinate stimulus in order to restore the continuity of experience. [35]

35. "It is the temporary disintegration and need of reconstitution which occasions, which affords the genesis of, the conscious distinction into sensory stimulus on one side and motor response on the other..." "The Reflex Arc

To claim that the act of reconstruction is a call for a determinate stimulus which resolves the tension within experience is to claim that this reconstruction must not only discover or form a stimulus as a basis for the next experience, but that this stimulus must be determinate, it must lead experience in one determinate direction rather than into a conflicting whelter of possibilities. This means the forming stimulus for action, whether this action be overt or simply a prompt for further reflection, requires an interpretive response. The stimulus must mean something for the next moment of experience in order for it to function as a determinate control. In this sense Dewey believes that every determinate stimulus is at the same time a determinate response. The initial, forming stimulus is simply the signal of a possible but perhaps uncritical discharge for future action, the initial projection of habit. The stimulus is thus never divorced from response, but presupposes at least one avenue of active discharge. This is the true origin of doubt. Doubt arises not in the absence of all meaning, not in the absence of all possible projections for future action, but in the presence of an initial projection for future action. We always doubt something that is more or less specified. "The judgment is never a judgment searching for an absolutely unspecified predicate. We never make an absolute judgment of this sort--"That is ? There is always some

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Concept in Psychology," (1896), The Early Works: 1882-1898, Vol.5, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1972), 109.

more or less specified hypothetical predicate. In other words, we never get a judgment except where there is doubt, and doubt means that there is at least one hypothesis" (p.277).

Doubt contains a sensational aspect, the aspect of shock, disruption, which is nothing more than the initial break in the continuity of experience.[36] The newly forming stimulus projects at the same time a possible release for the restoration of continuity. But this stimulus is new. Does this response adequately answer the stimulus? At the same time the stimulus itself comes into question. Is this stimulus such that it really demands the initial reflex of interpretation which the response dictates? This means the stimulus is likewise thrown back into a state of suspended reference. When, for example, we are thrown into a minor epistemological crisis because a trusted friend has told us something that we know not to be the case, we are likely to be confused. The stimulus for action, our friend's utterance, is projected as a lie. But is it a lie? Is that the proper interpretive response to the situation? Does that response adequately answer the stimulus which demands, the dynamics of friendship given, some response? Here, the

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36. "...there is but one true sensory quality--the quality of shock. From the point of view of logic, the shock experience is valuable, since a state of suspended reference is the basis of the inductive method." "Discussion on the `Concept of Sensation.'" The Middle Works, Vol. 4, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1977), 119. The "inductive method" is the mutual determination of the stimulus and response through the act of judgment. It is inductive because it is never free from revision.

response is temporarily suspended. But at the same time doubt is thrown back upon the initial stimulus. Our friend has apparently lied. But is this person a real friend? What are the appropriate dynamics of friendship? The stimulus itself, as the focus of the difficulty, becomes problematical. Is this person a real friend? Is his or her statement a real lie? What is a friend? What is a lie? We thus have the act of judgment, the act of mutually determining both stimulus and response in order to arrive at a determinate, hence interpreted, stimulus. This will be expressed in the form of a proposition. The subject of the judgment will reflect the determined stimulus (friend or not a friend) while the predicate will reflect the determined response (is a lie...hence, or, is not a lie...hence).

In this sense the act of judgment arises out of the initial break in experience in order to form the proper stimulus and proper response as one integral unit of control for the next moment of experience. With this in mind, Dewey claims that the act of judgment "...is the tension in the experience between the forming stimulus and the forming response" (p.272). Judgment is simply the act of experience which tries to restore the termporary breach in the means-end continuum of behavior.[37]

37. Hence Dewey's claim that the investigation of judgment must first locate an authentic judgment, a "live" judgment. We are misled in our understanding of judgment if we focus on "dead" judgments, judgments which are abstracted out of the context which motivates them. Judgment is always a response to the problematical in experience. Philosophers, Dewey believes, tend to ignore this. When, in the classroom, the instructor makes a claim that "There is a chair over

The subject of the judgment, as stimulus, and the predicate of the judgment, as response, thus arise out of the act of judgment. They are not given to judgment. "It is this reaction of the act...which constitutes the differentiation of subject and predicate" (p.271). They are not structural distinctions which designate different metaphysical worlds of reality and ideality. Instead, we must view the subject and predicate as functional divisions of labor in the reconstruction of the continuity of experience.

THE SUBJECT. The function of the subject term, as stimulus, is to provide experience with initial projections of meaning, with possible responses to the situation at hand. This is the focus of Chapter Five in the Lectures. The reconstruction of experience cannot be accomplished unless some initial avenues of discharge are available for each problematical experience. Otherwise, experience would grind to a halt. We would be left with the feeling of mere shock. There would be no continuity of experience, but simply disconnected and diverse directions of experience. No control would be possible for the development of a core of habit.

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there" as evidence or illustration of some philosophical matter under discussion, this "judgment" is really nothing more than a complex predicate designed to resolve the present situation of uncertainty which animates the discussion. Dewey calls it a "concept." Taking a stab at those who ignore this, Dewey says, "Humorously enough, the awareness of it [the chair] may even be cited in the course of a philosophic argument intended to show that awareness has nothing to do with situations of incompleteness and ambiguity." "Does Reality Possess Practical Character," The Middle Works, Vol. 4, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1977), 139.

The organism, as the center of reference, would simply cease to exist. The tactile sense would go one way, the visual sense the other way, and each sense would diverge into disconnected and unrelated avenues of unintegrated behavior.

THE PREDICATE. On the other hand, the function of the predicate term, as response, is to provide experience with a check upon uncritical stimuli for action. Discussion of the predicate term is the focus of Chapter Six in the Lectures. Whereas the forming subject term projects possiblities for control of experience, the predicate term functions to control these possibilities.[38] Not every prospective possiblity will do. The forming predicate of the judgment operates as a criticism or check upon the possible avenues of discharge which the forming subject term projects. In light of these mutual determinations, Dewey says "It is not true that they [the subject and the predicate] are there before and then are mechanically hitched together by the copula, but each is in a process of becoming what it is through the relation into which it is brought to the other" (p.273). [39]

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38. This is the root meaning behind Dewey's reference to the predicate as a plan of action or point of view. The predicate term does not reflect a unique realm of being, a universal, which can be directly absorbed into many particulars. "We use the predicate to qualify the subject, but only as it gives us a point of view from which we qualify the subject, a tool or instrument by which we qualify the subject... It is not the capacity to be thus directly absorbed which constitutes the predicate as predicate. It is its capacity for use in determining the subject" (p.278).

39. The traditional problem has been the relationship between an already constitued subject and predicate which is given to judgment. Reality and ideality seem to reflect different worlds, hence the problem of relating these worlds. But Dewey's claim that both subject and predicate

The final product of judgment is, therefore, a determinate stimulus, thus including both final stimulus and response, final subject and predicate. This is the content of judgment as opposed to the act of judgment. Judgment, as an act of experience, as reflective of the tension between the forming stimulus and the forming response, the "experimental" essence of the copula, as Dewey refers to it in the Lectures, is the means by which the continuity of experience is restored.[40] "All the processes of comparing, discriminating, analyzing, conceiving, classifying, thinking, belong to the act" (p.263). But this act of judgment has an end or standard. The end of judgment is the restoration of the continuity of experience. And this restoration is one and the same with the discovery of a determinate stimulus for action out of the initial confusion of indeterminate impulses for action. It is the final, though always tentative, content of judgment.

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arise out of judgment means that reality includes both fact and meaning, subject and predicate. We respond to the content expressed in a complete judgment. But this content is both "real" and "ideal," to use traditional terms. Given this state of affairs, Dewey's remark in the Lectures that "...it may be that reality alters as we think it," (p.263) and his various remarks in the Studies concerning the dynamic and self-evolving nature of reality can be put in context. As the articulation of experience evolves through reconstruction, as judgments evolve and are modified, both facts and meanings (Reality) undergo development.

40. "It is the copula which stands logically for this interaction which is essentially a process of experimentation...The copula is the tension of the subject and predicate in the judgment. One of the main problems is whether the copula has existential force or not. Does is mean being or mere mental formal connection between the ideas of the subject and the predicate?" (p.257).

THE COPULA. This means we have at the outset the initial distinction between the act of judgment and the content of judgment. The act of judgment is simply the activity of thinking, where thinking is understood as the activity of trying to find a determinate stimulus for action. It is a particular act of experiencing. This particular activity of experience is expressed in the copula of the judgment, and Dewey reserves Chapter Seven for its discussion. The content of judgment is the final product of judgment, what is finally thought to be the case as an accepted and determinate stimulus for further action or reflection. It forms the basis upon which the next act of experience will develop. And in this sense it functions as an object, something experienced. The subject and predicate of the judgment are, claims Dewey, "subordinate and within the content" (p.264).

THE ACT AND THE CONTENT OF JUDGMENT. The primary distinction for Dewey is the general distinction between the act of experience and the content of experience. And, for Dewey, it is a fundamental distinction. "My thesis or point is that all the fundamental logical distinctions are due to the way in which the act affects the content and the way in which the content affects the act. We can get the whole logical framework before us if we can see how these interact" (p.267).

The distinction between the act of experience and the content of experience is, of course, itself a product of reflection or judgment. In the ordinary course of experience we do not make the distinction between how and what we experience. The two are so fused together into one integral unit of living concern that there is no discrimination to be made. But as the continuity of experience is broken, repaired, broken again, and repaired again, the "...distinction between the act and the content or between the subject and the object in the logical sense assumes for us...definite form" (p.265).

We make mistakes. But our mistakes can become present to us only after we have completed the activity of judgment. Experience undergoes a minor break and we repair it with a swift judgment. A noise interrupts my reading, but it was only the wind. But now the same noise is heard coming from a windowless room. It was not the wind. A mistake has been made, and I need to repair again the break in my project. Here the <u>content</u> of my judgment was in error. An object, as that which formed the basis for the development of my experience, which provided a determinate release for action, a release which freed the present momemt of experience for the continuation of its project, now becomes thematic as a problem. We arrive at the awareness of the content of experience as something which needs to be controlled for the restoration of effective continuity of experience.

This content of experience, as that which is experienced in distinction from the act of experiencing, is not to be understood as indicative of a metaphysical reality which experience confronts. It is a distinction we make for experience in order to restore and control the continuity of our particular projects. Dewey's point is that what we mean by the content of experience must be given a functional interpretation. The content of experience is that which experience accepts as the basis for the next experience. Whatever experience accepts in the attitude of acquiescence is a content of experience, is something experienced.

THE ATTITUDE OF AQUIESCENCE. This attitude of aquiescence marks one of the limits of judgment. As long as experience remains in this mode of existence, a mode which reflects one of the practical poles of experience, there is no activity of judgment.41 This is a fundamental claim for Dewey, and he expresses it in the Lectures by saying that in this attitude "content determines the act" (p.268). What is experienced completely determines the act of experiencing. In other words, once again refering to Dewey's terminology, "...the copula is...merely the practical combination of the factors in experience..." (p.268). There is no such thing as rational assent but merely immediate aquiescence. "To all

41. Dewey develops this claim in his 1906 essay "The Experimental Theory of Knowledge," The Middle Works, Vol. 3, ed. Jo Ann Boydston (Carbondale: Southern Illinois University Press, 1977), 107-127.

appearances the thought process as such is purely passive and the content thrusts itself upon us. Thought has nothing to do but merely accept the content" (p.267). Our immediate perceptions that something is a hat or that the shower is hot, are not mediated by any contemporary thought processes. They may be the result of past processes, but as presently experienced they are not experienced as anything but accepted and determinate stimuli for future experience.42

But this pole of experience, reflecting the determination of the act of experience by its content, can become problematical. "The moment a man does not immediately acquiesce he is in doubt, uncertainty, suspense, which implies that his final assent will be mediated, determined, by the mediating process of reflection that he goes through" (p.268). The problem becomes one of reconstructing the content of experience in order to restore once again its determining influence upon the next experience. The act of judgment arises in order to effect the correct and determinate stimulus for action as an object of rational assent and not

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42. In other words, we do not experience the everyday world in terms of any subject-predicate, stimulus-response distinction. Although we live in a world filled with meaning, this world is not properly described in terms of the above distinctions. The distinctions arise during the act of judgment, i.e., when experience becomes problematical. "It is this reaction of the act...into the content which constitutes the differentiation of subject and predicate" (p.271). Only within the act of judgment do we experience things as subjects or predicates. And once the judgment has performed its function, once it has provided us with determinate stimuli for action or reflection as a specific content or product of judgment, the above distinctions cease to have any meaning for us. They have meaning only as tools for the reintegration of experience. They are not metaphysical simples.

as a mere immediate and uncritical impulse. "The distinctions of modality, so-called, (is, may, must be) have their origin here. The assertative (is so), the problematic (may be so), and the apodictic statements (must be so), are representative stages in the transformation of the immediate aquiescence into rational assent" (p.269). We arrive at purely descriptive judgments of what is the case. This is the origin of scientific statements. Control of the content of experience is the proper origin of science. The act of the scientific or descriptive judgment arises when this control is compromised within experience. The act of experience is thus determined by effectively stating the content of experience.

But these statements arise in order to fulfill a function. The need to get the content right, to have intelligent control over it in the form of rational assent, is in order to restore the continuity of experience. In this regard Dewey claims that "Every formulation about matters of fact tends to become a rule of action or conduct. There is a tendency always in the purely theoretical statement to get a practical value, a value in conduct" (p.270). In sum, Dewey believes that every descriptive statement has a normative status. "As the theoretical emerges on one side out of the difficulty in direct experience, the theoretical judgment must finally express itself again in action so that the imperative judgment is the limit also toward which the judgment is actually working--action, direct experience again,

though on a higher plane" (p.271). Every "is" is for the ultimate ideal of experience, its ongoing continuity. It can function as an "ought," and this is its ultimate function for Dewey, when the restoration of experience demands its recognition.[43]

If the content of experience can become thematic when the attitude of aquiescence is arrested, so too can the act of experience become thematic during the course of experience. For example, we may discover at a subsequent date that whereas a particular reconstruction did effect a continuity in the previous flow of our experience, we are not able to repeat this past success when confronted with a similar situation. Habit cannot get a foothold precisely where we expect it should.

Assuming the situations have been judged to be similar, the content of judgment, what is thought to be the case concerning these two situations, remains for the moment nonproblematic. This means our attention is thrown back upon the act of judgment as the source of difficulty. Whereas thinking had been effective in determining a particular successful issue in the past, it is not now sufficient to deal with a like content. Perhaps we had just been lucky the

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43. The is one of the more controversial claims Dewey makes. But he never gives it up. Sidney Hook defends it. "Dewey's contention is that every true proposition in use in a concrete situation provoking choice does have a normative status, because wherever relevant it determines in some degree what we should choose. But the great body of scientific propositions at any time are not in use." Sydney Hook, The Quest for Being, (New York: Dell Publishing Co., 1934), 58.

first time. Our act of judging the initial content may have been too hasty, too sloppy. That is why similar thinking does not work here. Our judging the initial situation was at fault.[44]

The act of judgment thus becomes thematic as a problem, thematic as an act of experience for which experience is alone responsible. For whenever an act of experience becomes thematic, experience becomes aware of itself as a subject, as an agent which can and does affect subsequent experience. Any adequate control of experience must therefore involve a criticism of how experience tries to restore its lost continuity, a criticism of the particular methods and operations involved in the growth of experience through its confrontation with the problematic which defines experience as an active participant in its own evolution.

THE IMPERATIVE ATTITUDE AND THE ETHICAL SUBJECT. Dewey refers to this active aspect of experience as the "imperative attitude" of experience. Like the attitude of aquiescence, it represents a pole of practical experience. In so far as experience is a process of doings and undergoings, it represents the "doing" aspect of experience in distinction from its "undergoing" aspect. This attitude also

44. Of course the situation confronting us in this regard is now complex. Supposing the situations are indeed similar, exactly what they are is now thrown into question. For it must be a mistake in interpreting the nature or content of this kind of situation which explains why we had success in one instance and not the other.

marks one of the limits of judgment. As long as experience remains in this mode of existence, there is no necessity for judgment. Every act of judgment, because it is an act, of course involves this attitude. But this attitude need not always involve judgment, for judgment is just one special kind of act. The "imperative attitude" of experience is simply meant to be expressive of the active aspect of experience as such. It is "the active determining attitude" which is expressed whenever "a man starts to do something, makes a new direction in his experience...`Must get up now; must not lie here any longer in bed'" (p.268).

It is clear that the imperative attitude need not involve judgment. We change directions in our experience all the time. We feel tired and go to bed. We meet a friend and take time out to enjoy a cup of coffee. All the particular activities of daily life channel themselves in never ending currents of changing interests and concerns. But when this attitude is arrested, when the act of experience does not issue in a determinate direction because we are not sure how to proceed, we are thrown back into the particular activity of judgment. But the focus of this activity is unique. It is properly concerned with the criticism of the act as determinative of a future content of experience. Instead of trying to gain effective control over a content as determinative of a future act, we try to gain control over the act as determinative of a future content.

Dewey believes that the control of the act of experience as determinative of the content of experience is the function of the ethical judgment. "Development from the side of the imperative represents the determination of the content by the act...The arrest of the imperative attitude give us the optative mood, judgments of wish, would, that so and so were true, I wish, I want, should, would, ought. Generalizing it on the ethical side, we say `This ought to be so'" (p.270). Any adequate control of experience, any attempt at effecting continuity within experience, must involve a criticism of the act of experience as the means by which this control is effected.[45] In this sense effective reconstruction of experience demands self-criticism, criticism of

45. To gain control of the act of experience is to gain control over the means of reconstructing experience. To gain control of the content of experience is to gain control over the end of reconstructing experience. Insofar as the content of experience is controlled, experience has determinate stimuli (this is the end for which all reconstruction takes place). But if we ignore the means by which this end was accomplished our control over the content will be temporary. Life has surprises. But the situation is different with respect to the act of experience. To really gain control over the means of reconstructing experience presupposes success over the end of these means, otherwise it would not make sense to talk of successful means. Means are always linked with issues, but issues can become divorced from means. Success may be had without adequate appreciation for its causes. Insofar as Dewey locates the criticism of the means of reconstruction with the ethical judgment, this helps to explain why he says in Chapter One of the Lectures "that instrumental logic will furnish the key to the ultimate metaphysics, or philosophy (which in this case will be ethical)" (p.129). A complete ethical theory will in this sense simply presuppose a complete science. But a complete science (supposing for the moment that ethics is not a science and that science is to be identified with a body of propositions about reality) will not presuppose a complete ethical theory. Both ideals of completeness, of course, will remain impossiblities. We can never overcome the uncertainty which the future brings.

the "I wish, I want, should, would, ought" as projective of future contents of experience. Our character, as the center of reference for our acts, therefore becomes implicated in the task of reconstructing experience. As Dewey says elsewhere, The "adequate control of an act as determining content involves the possiblity of making character an object of scientific analysis - of stating it as a system of related conditions or an object complete in itself - a universal."[46]

But judgment is itself an act of experience. If the function of ethical judgment is to control acts of experience, then it must function to control acts of judgment as well. "It follows immediately that the aim of the ethical judgment may be stated as follows: Its purpose is to construct the act of judgment as itself a complex objective content." [47] But this means that ethical judgment must judge itself, for ethical judgment is also an act of experience. Dewey accepts this. But all this means is that ethical theory can never be complete. There will always be some act which is for the moment simply presupposed as a basis for criticizing other acts. Experience does not cease to flow into the unknown future. But it can prepare itself as best it can. The ideal of continuity may be frustrated in many

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46. "Logical Conditions of a Scientific Treatment of Morality," The Middle Works, Vol. 3, ed. Jo Ann Boydston (Carbondale: Southern Illinois Universtiy Press, 1977), 32.
47. Ibid., 23. Control of the act demands it become a content for analysis, an object of experience among other objects. Control of the content demands viewing it as an act, as a construction or articulation of experience out of previous acts of reconstruction.

particular instances. But to realize this ideal as best we can means "that the judger is consciously engaged in constructing as an object (and thereby giving objective form and reality to) the controlling condition of every exercise of judgment."[48] In this sense the ethical judgment is the highest form of judgment. As the control upon all means of reconstructing experience, it alone expresses and is charged with realizing the ideal of experience, the continuity of experience. How we effect this ideal is the proper problem of the ethical judgment. Hence its function is the most explicit. The ultimate function of judgment, to effect continuity in experience, is primarily ethical.

SUMMARY OF DEWEY'S RECONSTRUCTION OF JUDGMENT. Dewey is articulating a research program that needs development, but its "hard core" has been emphatically announced. Dewey will spend a lifetime trying to protect this core from various criticism, but by 1899 he was already on his way to a firm philosophical vision. This vision, the "hard core" of Dewey's program, can be summarized in the following broad terms.

Judgment is the act of articulating experience, the function through which knowledge is obtained. Knowledge is, of course, something which must be justified in order to distinquish it from mere opinion. Opinion has no norm or

48. Ibid., 23.

standard. It is not tied down, as Plato first said. But knowledge is always under some standard, always under some norm. The core of Dewey's philosphical vision is that this standard or norm does not lie outside experience in some transcendental realm. The justification of knowledge lies within experience itself. Experience creates the very norm or standard under which its articulation is to be certified. This norm is nothing more than the ideal of the continuity of experience.[49] It is the ultimate good of experience. But

49. The continuity of experience, as the "core vision" of Dewey's philosophy, has four different functions within his overall thought. 1) It is a postulate for the proper understanding of experience. Experience has a unity of function, a general telos, which is best expressed in terms of the organism's struggle to secure and maintain an effective continuity with the environment. This means that experience is not to be understood in dualistic terms. There is a unity of process, of activity, of function, which must be preserved in the analysis of experience. 2) It provides Dewey with an account of the function of the particular ideals in experience. It is the function of an ideal to restore the co-ordination of activity within the organism (to secure a continuity of habit) which will preserve and enhance the adaptive ability of the organism. 3) But a particular ideal can succeed or fail. In this sense, the continuity of experience becomes the formal norm against which the particular ideals of experience can be criticized. Does the particular ideal secure the co-ordination of response which it promises? 4) Finally, it is an article of faith insofar as it is a working point of view. We adopt this point of view with the hope and expectation that it will clarify self-understanding and that it will ultimately affect social and historical re-evaluations of what is possible as a product of a clear self-understanding. Such a faith is expressed by Dewey in the following terms: "The things in civilization we most prize are not of ourselves. They exist by grace of the doing and sufferings of the continuous human community in which we are a link. Ours is the responsiblity of conserving, transmitting, rectifying and expanding the heritage of values we have received that those who come after us may receive it more solid and secure, more widely accessible and more generously shared than we have received it. Here are all the elements for a religious faith that shall not be confined to sect, class, or race. Such a faith has always been implicitly the common

this good is an evolving good. And it is the ultimate function of the ethical judgment to state, as best it can, the contemporary results of this evolving good as it is embodied in contemporary experience. This is the root meaning behind Dewey's claim for the superiority of the ethical judgment. For it is the ethical judgment which tries to express this ideal in terms of the adequacy of the act of experience to effect the continuity of experience. But as an ideal the continuity of experience has no final and determinate content. As long as experience projects itself into the future there is always the possiblity of the unexpected and novel. This means there can be no final deposit of habit, no absolute and secure guarantee that past adjustments and articulations will automatically carry over into the future without some call for revision and reconstruction. No complete articulation of experience is possible. This last statement is absolute. The quest for certainty, understood as the quest for the final deposit and repose of habit, must be understood as a flight from the temporal implications of life. But the essential incompleteness which defines the life of "becoming" has led to the search for ultimate "being," the ageless but, Dewey believes, hopeless obsession for a determinate completeness, i.e., the search for ultimate repose and contemplation in dogmatism of habit.

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faith of mankind. It remains to make it explicit and militant." A Common Faith, (New Haven and London: Yale University Press, 1934), 87. Faith in the ultimate continuity of experience demands respect for the past. But our struggle is to preserve and rectify this past in face of the novel situations which confront us.

NOTES TO THE TEXT

The text which follows is a partial reproduction of a transcript of Dewey's Lectures on the Theory of Logic delivered at the University of Chicago during the 1899-1900 academic year. It begins with the Fall Quarter lectures of 1899, and ends midway into the Winter Quarter lectures of 1900. The lectures were, of course, oral. But a transcript of these oral lectures was presumably distributed among Dewey's students. The original transcript (from the H.H. Bawden Collection) spans the entire academic year, but the text reproduced here covers only the first half of this academic year. The original document for the Fall Quarter spans 91 pages and contains various diagrams. All the pages and diagrams for this quarter are included in the text. The original document for the Winter Quarter spans 102 pages and it also contains various diagrams. The text covers the first 62 pages of this quarter and includes all the diagrams up to this page. The Spring Quarter is not reproduced.

I have decided to end the text in the middle of the Winter Quarter because this marks the end of Dewey's general discussion of the nature of judgment. Of course Dewey does go on, but the topics include more technical questions (e.g., the classification of judgments). To end the text here seems natural, for it gives us a statement of Dewey's

general program for reconstructing our understanding of experience, and the need to reconstruct the theory of judgment in light of this reconstructed theory of experience. The text which is here reproduced thus gives us Dewey's original and novel approach to traditional philosophical problems. It expresses what is most important for an understanding of Dewey's program for the reconstruction of philosophical reflection.

I have divided the text into chapters and not, as might be expected, into lectures. The reason for this is twofold. (1) There are very few natural breaks in the text indicating the end of one lecture and the beginning of another. This means the text itself reads more like a book than a series of lectures, and I have tried to preserve this continuity. (2) More significantly, the first two divisions of the text are divided into chapters. Although no titles accompany these divisions, the intitial assumption for one reading the lectures is that they are to be divided into broad thematic topics.

This raises interesting possibilities. As mentioned in the Editor's Introduction, Dewey had agreed to prepare a volume in the Library of Philosophy series under the title Principles of Instrumental Logic. This volume was never published. Whether the following text is a draft of Dewey's unpublished promise, or whether it contains portions of this draft, is something we will never know. But the fact that it

is initially divided into chapter sections lends credence to the belief that we are encountering something programmatic.

I have made only one change in the way the text is divided into broad subject matters. Dewey does not make a clear division between his introduction to the nature of judgment and the discussion of the subject of the judgment. This distinction occurs toward the end of the Fall Quarter, and I have introduced a new heading here. The Winter Quarter begins with a continuation of the discussion of the nature of the subject, hence the beginning of Winter Quarter does not mark the beginning of a new chapter.

The Fall Quarter does not contain any student reports or discussions. But Dewey's lectures for the Winter Quarter are temporarily suspended for student reports and discussion. I have placed these discussions and reports in the Appendices. They mark temporary suspensions between Dewey's discussion of the subject and predicate of the judgment, and between his discussion of the predicate and copula of the judgment. They are reproduced verbatim, but can be confusing because there are no natural marks to indicate when the student report ends and Dewey's remarks begin. I have omitted the reports which come after the discussion of the copula because they have no direct bearing upon the general themes discussed in the Lectures.

It is interesting to note that one of the reports comes from a Miss Thompson. This Miss Thompson is most certainly the Helen Thompson of the Studies.

The Appendices also include general reference material which Dewey supplied to the class. This material is reproduced verbatim. There is also a short discussion of Mill which appears as an extended "aside." I have placed this in the Appendices in order to preserve the general flow of the discussion in the lecture material.

As for the general body of the text, I have substituted first person references to Dewey for third person references. Throughout the text references are made to what "Dewey says" or "According to Dewey...." (Consult the Appendices for a "verbatim" record of these third person references.) I have changed these to "I say" or "According to me...." Occasionally first person references are included in the text. When this has occurred I have simply noted it by a footnote. (All footnotes in the text are by the editor.) We must remember that the transcript was taken down for distribution among Dewey's students. The mention of "Dewey says" must have been a natural signal that something original was being said. Hence it is not surprising to come across third person references in such a document.

Many of the chapters are divided into sections. Some of these divisions are actual textual divisions and include headings to mark off points of emphasis. Whenever the text includes such a division its heading is <u>not</u> contained in brackets. The respective heading is part of the actual text. This does <u>not</u> mean that such headings have been set apart and properly formated within the body of the text. Points of

emphasis are many times simply indicated by a phrase before the discussion continues. I have set these apart and properly formated them by taking the phrase as the heading of a section. But they remain actual textual distinctions.

Some of the chapters have no actual textual divisions, or, when they do, an insufficient number of these divisions. There are natural breaks and points of emphasis within chapters which are not properly indicated in the text. In order to reflect this, I have introduced my own divisions. These are indicated by the use of brackets. Whatever headings, titles, chapter divisions, or sectional breaks are not in brackets are actual textual distinctions.

We must remember that this transcript is a written reproduction of an oral lecture. Verbal emphasis is a natural part of a lecture. This emphasis has been reproduced through the use of underlining certain words, parts of words, or phrases in the course of transcription. But there is a minor problem here. The manuscript includes certain notations that could have been added only after the original transcript had been completed. Part of these additions are additions of stress, emphasis, the natural product of someone's careful and focused reading of the transcript. I have tried to separate these additions from the original points of verbal emphasis. But this means I have had to separate apparent scribbles from apparent non-scribbles. Although this is a rather mundane and easy activity, the cautious reader should beware that there is always room for error.

The text has multiple references to various authors and works. By far the majority of the references concern Bradley. All page references to Bradley are from his Principles of Logic (1st ed., 1883). Also, all page references to Bosanquet are to this Logic (Vol. 1., 1888). References to Mill's System of Logic are rare but problematic. Page references do not correspond to any of the standard editions Mill approved in his lifetime. (The 8th and final edition approved by Mill appeared in 1872). This means Dewey probably used the inexpensive People's Edition, an edition of System of Logic which Mill refused to authorize during his lifetime because it would cut into the sales of the standard Library Edition. The first People's Edition was published in 1884, after Mill's death. But it seems likely that Dewey used the 1889 People's Edition for his Lectures. (We know he had a copy of the 1889 edition. Consult the checklist of references for Dewey's Middle Works, Vol. 2.) Finally, a list of works cited by Dewey during the course of lecturing, not including asides and background course material, is given after the Appendices.

I have tried to be faithful to the general flow and style of the text. Anyone familiar with Dewey will immediately notice that his style is abundantly apparent in the Lectures. I have, however, found it necessary to separate sentences and introduce new paragraphs in order to facilitate the reading of the text. Whenever such editing is problematic, I have indicated so in a footnote. Nevertheless, I

have tried to keep to the original as much as possible. The only substantial novelty is in the various divisions and headings which have been introduced in order to cleary mark off changes in interest and focus which occur during Dewey's lecturing.

[PART I]

[Fall Quarter 1899]

Chapter One

[A PRELIMINARY ACCOUNT OF THINKING]

A preliminary account of what thinking is, what ideas are in the process of thought, starting from the ordinary use of the thinking process. One of the difficulties of most of the logics is that they plunge into the midst of the thinking process without inquiring what it is. Thinking is a secondary and derivative process: a tool, an instrument.

What is an idea considered as the tool of the thinking process? (On the distinction between an idea in the psychological and the logical senses cf. Bradley, [Principles of Logic], first four pages of Chapter One.) Thinking is a secondary and derivative process, not a mode of immediate or primary experience. We think about or on our experience. We reflect or turn back to something which is the datum of thought, "given" to thought.

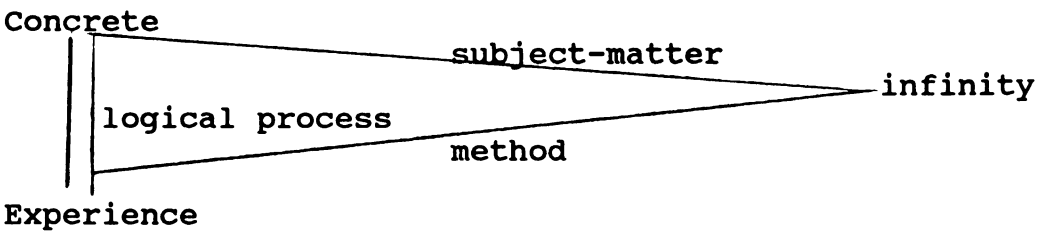
The question arises as to how and why this derivative attitude is ever taken up. Why should we think at all? Why are not the direct processes of experience sufficient? If the sense-perceptions give us reality, as Hobbes and Locke

supposed, why should we go on to the artificial and more complex processes of thought and conception? Is it anything more than mental gymnastic? What reality corresponds to this higher more intricate phase of the cognitive process? Does the thinking process simply alter our attitude or does it give us a different reality? (Cf. Bradley's last two chapters of his Logic on validity.)

Bradley distinguishes between the idea as the psychical idea, the mere event or occurrence in the psychic life, and the idea as "meaning" or significance. We may accept Bradley's distinction without accepting his inference as to the relations of psychology to logic. For Bradley, the idea is meaning abstracted from the thing, [the] reflected meaning, or significance, or value which has been severed, so to speak, from the thing or object and given for the time being an existence on its own account.

Thinking is a secondary and derived form of experience growing out of a more original and primary form of experience. An idea is a previously experienced reality treated from a certain point of view. But what is this point of view and why do we take it? Why, in Bradley's sense, would meaning or significance ever be cut loose from the things or objects? If you see an English sentence the object (writing) and the meaning are not separate, they are one. But if you see an acrostic such as  or an enigma, puzzle, or hieroglyphic, for the nonce the object and the meaning are distinct. Why should this ever occur? The fact is that the

symbol-idea does not stand out in absolute independence of any and all meaning. For the acrostic or hieroglyph to be seen at all, to be distinguished for example as an acrostic (as a symbol, as something with a potential meaning) that is to be marked off from the environment, it must have some meaning. The baby does not see any acrostic in that patch of ink marks.[1] It is simply in the discussion that the subject matter and the method, existence and meaning (Bradley) fall apart.



We think with ideas. What then is an idea? There are several theories.

(1). An idea cannot be adequately defined as simply a certain kind of psychical state, as belonging in the class of psychical states which are complex as compared with sensation which is simple, original, virginal, compulsory, brutely given. This is the inadequate doctrine of the English psychology from Locke down to the present time. But this does not touch the idea from the logical point of view,

1. I have divided the thought expressed here into two sentences. The manuscript awkwardly reads: "For the acrostic or hieroglyph to be seen at all, to be distinquished for example as an acrostic (as a symbol, as something with a potential meaning), that is, to be marked off from the environment (the baby does not see any acrostic in that patch of ink marks) must have some meaning."

even supposing that this is a correct statement psychologically. The idea logically is something more than simply the manipulation of sensations. Locke's conception is inadequate because it is irrelevant. His doctrine is:

Sensation	Idea
1. Simple	Compound
2. Original and immediate	Result of operation: mediated
3. Compulsory	Voluntary

The point is why do we do this? Why do we thus manipulate this raw material in this way? We are interested in thinking as a function, not as mere content. What does it do for us? What is its value, its worth? It is no answer to this question to tell us what it looks like, or what it is composed or made up. A mere description of the lungs would not be sufficient explanation of the import or significance of the function or respiration. Thus psychology gives us a statement merely of the mechanism through which this function operates. It does not tell us the function of a table to give its dimensions.

(2). The idea is sometimes contrasted with the real, or treated as the subjective over against the objective. This mode of disposing of the idea is unsatisfactory since, in the first place, an idea is as real as anything else. My idea of a Centaur as an idea is as real as the horse going by in the street--that is, taking it simply as a psychical existence or event. But, in the second place, why should there be both things <u>and</u> ideas? What is the value, meaning, use, of these ideas over against things? How do we ever come

to put ourselves in this attitude? Why do we ever think of ideas as over against things? Why should there be this subjective, this thinking-about-reality which yet is not that reality?

An idea is a suggestion entertained regarding some reality. Thinking is virtually making believe or pretending that things are so and so (or that reality is such and such) in order to see what will happen. Thinking is a process of "Suppose it is so and so and see what will happen." It is a mental or ideal experimentation (Bradley's phrase). An idea is always an hypothesis about reality. Thinking is a process of elaborating or expanding the hypothesis. An idea is always reading between the lines, supposing something to be there which is not upon the surface. The question is, then, when and why do we make hypotheses and what is the value of so doing? (See notes on Hypothesis.)[2] We begin with the act or the concrete activity of experience. The reflective process is the splitting up of this concrete whole into the relatively fixed and certain and the relatively fleeting and uncertain or hypothetical. The former is the body of experience, the self. The latter is the idea, the hypothesis.

We thus get away from the conception of the thing as the reality and the idea as the pale, ghastly, washed-out ghost or copy or mirror of the reality. The idea is the hypothesis or supposition as to the reality. The distinction

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2. These notes are not contained in the manuscript. Perhaps the reference is to a handout that Dewey distributed to the class.

is not between the real and the mental but between the certain, the ascertained, the recognized, and the hypothetical, the suppositious, the supposed. We will try as if it is so and so. The question is why do we indulge in suppositions? Under what circumstances, for what end, and what is the value of it? For logical purposes we do not care whether the thinking process takes place in one's head or where it takes place. That is not a relevant matter at all. It is the attitude of "perhaps," of "maybe." The metaphysical antithesis of subjective and objective, the idea and realities, if we mean by this a separation of existence between the two and the problem of how the two can be brought together, is irrelevant in logic.

The idea is a tentative view of the fact. The ontological distinction of subjective and objective is irrelevant. If we put a new meaning into those terms, the objective as the certain, the subjective as the hypothetical (that which is still under deliberation), we may perhaps still employ those terms.

The process of thinking implies: (1) Some conscious doubt as to the nature of an experience. One of the chief stimuli in the development of ideas has been the social necessity for instruction. The relationship between two minds preceded the relationship between two ideas in the same mind. This doubt is socially aroused in the first instance. (2) The entertaining of various suppositions or tentative views as to what the fact might be, i.e.,the hypothesis. (3)

The reaching of a conclusion or decision; that is, the transformation of the idea into fact, the cessation of conscious doubt and the substitution of the positive result that the fact is or is not thus and so.

THE PHASES OR FORMS WHICH THE IDEA TAKES IN ITS EVOLUTION

Ideas are in one aspect assumed to be fixed static things, heads or pigeon-holes for the classification of experiences. These ideas represent the regular ways in which given doubts are disposed of. Society has rules for situations only in which there is or has been possibility of doubt, of quarrel, of conflict. The rule is simply the way of viewing this recurring difficulty so as to avoid the conflict and introduce again unity and validity into experience. Ideas are such rules for cases of doubt and conflict. The ideal in this regard is more than a mere suggestion, it is an imperative. The idea is the social standard and the various existing social standards give us the ideas which have regulated life in the past history of the race. Thought thus begins as the fitting in or fitting on of the idea to the particular case of doubt that arises.

In law the judge must determine whether he shall adjudicate the particular case in accordance with this or with that statute, standard, or idea. Most persons suppose that

the law is fixed and that the judge has simply to apply this fixed law, that his business is simply hermenuetics, pigeonholing, docketing the case. But law is growing from day to day.

But this gives a picture of what primitive thinking is, an attempt to reestablish the equilibrium which the doubt has disturbed. It is just a matter of fitting a stock of preconceived ideas to each other and to the particular case. The word serves to aid in fixing these ideas. Yet note the gradual change in the meaning of words. There are even men today of much schooling who think that any dispute can be settled by referring to the dictionary.

Thinking in the wide sense

(1) Thinking, understanding, in the popular sense; simple apprehension, or general ideation.

(2) Reflection, deliberation, estimation, judgment proper, implying a standard.

Judgment or Reflection in the wide sense

(3) Reasoning, Proof.

(4) Inference.

(5) Science, Theory.

(1) Thinking. This is the mode of thinking of primitive races, of the child, and of the average practical life of most of us when the more elaborate process is not required. It is the economical mode of thinking, which Hegel calls the

Understanding. It is necessary in the practical life. It is essential to action, otherwise action would be indefinitely postponed. To understand a thing in the popular sense is to be able to dispose of it by classifying it, perhaps by a catchword. This is simple apprehension as over against judgment. Some logicians have treated these separately (cf. Hobhouse). A great many people think that they are reflecting when they are only "thinking." In all reflection there is a certain conscious reference to a standard. It may be more or less conscious.

(2) Judgment Proper. Judgment proper implies a certain examination which brings the idea, the point of view, the mode of interpretation, to consciousness and considers its appropriateness to the particular task in question. It examines the technique. A judgment involves a process of conscious estimation, of determining the value of the factors used, their appreciation in terms of each other. A judgment is a trans<u></u>action where we have to consider both parties in the particular case in question and to consider the idea which is to be the means of the adjustment or readjustment. Imagine a person in a moral crisis. He asks himself, "What is the nature of this case anyway? What is the value of the rules, principles, upon which I have been acting? Is this a lie or is it not? How about my criterion for the nature of a lie, which I have been employing?" There is a constant evaluation not only of the case as an individual case, but of the standard of evaluation itself. The judgment is the

looking into the simple apprehension and analyzing the technique which has been unconsciously employed therein. The simple apprehension is sometimes called an implicit judgment. But in reality it is not a judgment at all until the process is done more or less consciously (contra Bosanquet in his Essentials of Logic on the "continuous affirmation of the waking consciousness"). A simple apprehension is the material of a judgment. A judgment may relapse to the immediacy of a simple apprehension in the form of habit. I do not call it judgment unless the element of doubt and inquiry enters, no matter to how small an extent. Judgment expresses the attitude of mind where we are uncertain. It is the critical attitude, that of the judge on the bench. Judgment is an appraisal, an appreciation, an evaluation.

Reflection involves a certain amount of scrutinizing of the concepts used, critical insight into them and revision of them. So far as this reflection is not definitely conscious of the standard by which it is controlled we may term it discussion, that is, not merely discussion with others, but discussion with one's self -- as the word implies, a certain breaking up, tearing apart of the ideas used. The Greek dialectic, taken before its rules became developed, represent this stage or phase of the reflective process, the stage of the dialogue; not necessarily between two persons, but between two or more aspects of the divided self. The Greeks translated the idea of the dialogue between two persons over into the agitation in the individual and called it

dialectic. Of course the dialectic as developed by Plato became, in ideal at least, a body of rules or laws for the process of thought. Dialectic as used by Hegel goes back again to the original meaning of the term, that is, he emphasizes the agitation, the oppositing attitude again.

(3) [Reasoning.] When one becomes conscious not only <u>that</u> there is a standard, but becomes conscious of the specific relation which that standard has to the process of thought (the controlling relation), we get reasoning. This implies reference to the canons of proof, to rules of procedure. The idea of reasoning was laid down by Socrates and formulated by Aristotle, where it passes over into the formal logic--though even Aristotle was not fully conscious of the end toward which he was aiming. The process of reasoning implies that there is a given statement which is either doubted or probably true, that is, hypothetical. The process of reasoning consists in finding reasons, grounds, by reference to which the statement may be affirmed or denied. If we get no further than the stage of mere discussion we, as Socrates pointed out, have not passed the phase of mere opinion (the standpoint of mere rhetorical persuasion). The Sophists in this respect were mere rhetoricians, making the worse appear the better reason, dealing merely with individual opinions. Socrates emphasized on the other hand the universal in thought which made over the mere opinion into a truth valid for all. The discussion stage of thought is that of the hypothetical judgment: "Is Socrates going to die?" or

"Socrates is going to die" taken as a supposition, assumption, or hypothesis for the time being. When reference is made to a certain universal such as this, that all men die, hence Socrates will die, we pass over into the reasoning stage. Mere opinion gives us correctness or incorrectness; reasoning gives us truth or falseness, that is, correctness or incorrectness proved or disproved. Of course reasoning postulates certain general truths which are not questioned, e.g., in the previous example the proposition that all men die. If it is true that all men die then Socrates will die. These postulates are the immediate, self-evident, so called intuitive truths. They are their own proof, and in this sense always unproved and unprovable.

Here arises a disputed point. There is a divergence of opinion among logicians and philosophers. Are these ultimate truths, so called, really ultimate, or simply static ideas that have not as yet been called in question? If we assume that they are ultimate, then the logical process ends in them, and the logical process passes over into metaphysics. We have to deal with processless knowledge of truth, with intuitions, with immediate vision of truth. If we assume that these are not ultimate absolutely, then we look forward to a deeper logical search and analysis, ad infinitum. If reasoning is the highest and final form of experience, then these ultimate truths are "given," independent of any mental process (though of course we must use our minds to know them, we must open our eyes to see them). But would not this

barrier lead to the limitation of the possible progress of science and hence to skepticism? If these ultimates are not absolutely ultimate then the objection would be made that we would never get anywhere. But this ultimate truth is not a truth to be taken by itself, but is rather the keystone in the arch. The keystone does not support the arch. The arch supports itself. But it occupies the critical, the salient, the functional position of importance (though it is not structurally fundamental). Thus we will continue to seek for connections among these first truth, these disjecta membra, these often apparently discrepant if not inconsistent and contradictory first truths. Thus in this point of view a truth will be first or ultimate just according to its power to organize other truths.

(4) [Inference.] Reasoning is the search after truth. Inference is the search after explanation. Explanation takes in the totality of the connections and attempts to unify the detail, the diversity into a whole. Every part must have its meaning, and that which has more points or parts of meaning is worth more than that which has less parts or points of meaning. That coherent body or system of truth is the most valuable which carries with its unity the richest detail.

(5) Science. The passage from reasoning to inference represents historically the passage from the Aristotelian and medieval formal logic of reasoning or proof to the explanation or inference of modern science. In a general way the medieval formal reasoning lays the emphasis on the

deductive side. Of course deduction and induction imply each other. The Aristotelian deductive logic had to recognize the inductive principle just as modern scientific so-called inductive logic has to recognize the value of and the use of the deductive principle. Many so-called inductive logicians hold that the scientific logic of inference cannot be stated properly or be demonstrative until it is put into the form of the syllogism (Jevons, for example). A is M, B is M, C is M, D is M, etc. Thus we get the conclusion of the universal. But the modern logic of inference is not a question of premises, but a question of data and their explanation, the parts in terms of the whole and the whole in terms of the parts. This is the difference between a law suit and a laboratory investigation. The one is an exclamation point (!). The other is an interrogation point (?). In the law suit the goal is a fixed goal. The case is tested by this fixed statute. Tested by this fixed statute, is A guilty or not guilty? In the laboratory investigation the goal is itself a moving point, enlarging with the process of the investigation, as the discovery of truth proceeds. The latter is a process of interpretation instead of a process of proof of a previously fixed result. We have signs (hieroglyphics) which we are trying to interpret. The Egyptian hieroglyphs do not require to be proved, but to be interpreted. We seek a key for their explanation. The reasoning process would ask the question "What right have you to make that assertion? What is your basis, ground, rule?" The standard and process of

procedure are fixed. The ultimate standard is found in the particular truth. The process of inference would ask the question "What does this mean? How did it come about? Why does it operate in this way?" Cf. Trusts. The standard and process of procedure are flexible. The ultimate standard is found in the system of truths. If you are trying a man for murder you are not interested in convicting him of forgery, or in convicting another man. But the scientist, seeking to demonstrate a certain principle, may discover another even more important law of which he did not at first dream. The function of the idea is that of the unification of experience, but this becomes possible only through the development of the idea as an hypothesis. The complete evolution or movement of the idea thus involves both induction and deduction, inference and proof. Every action cuts short the hypothetical process, terminates the process of reflection, and in this sense assumes that truth has been reached. Reflection means postponement of action as well as refraining from action (Bain).

Summary. The judgment is a process. The logical attitude implies: (1) uncertainty regarding the quality of some experience; (2) an intermediate, an intervening, a mediating process, in which something which previously has been accepted is held in suspense or is held only tentatively, is accepted only as data for what can be done with it or made out of it, and not for what it is in itself; (3) following

from this there is some new experience which is in process of construction, a reorganized experience.

The essence of judgment is inquiry as to the value of some experience. There is an interesting discussion by Bosanquet as to whether the question is a judgment or not (cf. Sigwart also). He decides that it is only a command. But I say that not only is the question a judgment, but that every judgment is a question. It is the very heart and essence of a judgment to be a question, an inquiry, an investigation. The reason this has not been recognized before is that the net result, or formulated proposition, is confused with the real judgment which is the process by which this result has been attained. Bradley says that since all judgments when they become scientific are logically hypothetical, no scientific judgment is ever categorically true. When we make a statement universal, we make it hypothetical. Any sentient being under such and such conditions will have a toothache. The categorical judgment is the judgment of everyday practical experience: "I have a toothache." There is an element of truth and an element of error in this position. It opens up the whole question of the relation of the categorical to the hypothetical judgments.

Every judgment has both a negative and a positive side. Some previous experience is held in suspense, in suspicion, is discounted, is not regarded as it once was. This is the negative attitude which is absolutely essential to the judging process. This negative aspect may be subordinated, yet

it is implicitly there. In so far as the judgment looks toward the reorganization of experience it is positive. The negative attitude is retrospective, the positive attitude is prospective.

The idea is some previous experience undergoing revision together with a forecast of some possible or probable new experience.

The logical process actually arose historically in connection with some difficulty and doubt, and the evolution by the formation of hypotheses of some reliable or valid method of resolving this doubt, of meeting with this difficulty. Thus is past related to future and present experience.

Logic thus is differentiated from epistemology and metaphysics. The latter deal with the existential relations of the experience of reality. Logic has to do only with the validity of experience of reality. Our metaphysics should really be a simple and full development of logic. That is, the content, the existential, is to be traced back to the functional, value, distinction. Epistemology exists only so long as a falsely stated problem is not analyzed. The same is true of metaphysics as distinct from logic. Logic, instrumental logic, will furnish the key to the ultimate metaphysics or philosophy (which in this case will be ethical).

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3. The manuscript lists the names only of Bradley, Erdmann, Mill, Venn, and Wundt. I have tried to supply the most probable references, drawing in part upon bibliographical material from John Dewey: The Early Works, Vols. 1-5 (Carbondale: Southern Illinois University Press). The references are most likely simple background references for students to explore.

TOPICS FOR STUDY

1. The logical theory of quantity.

2. The theory of negation in logic. The negative judgment. The negative generally in thought.

3. The disjunctive judgment.

4. The relation of the hypothetical to the categorical judgment.

5. The logical relations of perception and conception.

6. The logic of historic criticism (not aesthetic criticism, but philological, higher or literary, and lower or textual criticism). Work out the logical theory that is implied in this critical apparatus.

7. The logic of the social sciences, math, physics, biology, psychology.

8. Mill's canons of induction. Cf. also the criticisms that have been directed against it. This is Mill's theory of inductive reasoning. How does it stand between him an his critics?

9. The validity of the thought process in relation to the objective world, i.e., virtually the epistemological side of the logical process. Cf. Bradley, last chapter [Logic].

10. The significance of the thought process in experience: the psychological and metaphysical side of the question.

Chapter Two

[PSYCHOLOGY AND LOGIC]

The Psychology of the Logical Processes; the Relation of Psychology to Logic; what the Psychology of Logic is; the Psychological Equivalents of the Logical Processes.

Is the difference in subject matter or in the method or point of view only?

The first question that meets us regarding the relations of logic and psychology is whether they have really the same subject matter but have different interests, different ends in view, which leads to emphasis upon different material with different method of treatment, or whether there is a differentiation in the subject matter itself.

The currently accepted distinction is as follows. Cf. Hodgson's rigid distinction in his Philosophy of Reflection and in his Space and Time.[1] He distinguishes between the natural positive sciences which deal with genesis and the philosophical or metaphysical sciences which deal with analysis; the former with the "how," the latter with the

1. The reference is to Hodgson's Time and Space.

"what." (Cf. article in Mind on the relation of genesis to analysis.)[2]

This rigid distinction I reject.

This distinction is a survival of the pre-scientific period when science had no definite method of procedure. It is really between the immediate circumstantial, accidental, observation of the facts, and the mediate, secondary, derivative, essential, substantial, intrinsic examination and explanation of the facts. The former rather inaccurately has been called the region of sense-perception, the latter the sphere of discursive thought. The first is immediate, unreflective thinking; the second is critical, discussive, dialectical thinking (the judgment). This is the old Aristotelian distinction between the real, eternal, unchangeable, universal, necessary, and the contingent, temporal, particular, variable, circumstantial knowledge of the facts. It is the same distinction as the a priori and a posteriori of Kant and the truths and matters of fact of Leibnitz. I would say that we get at the essence of the fact in and through the circumstantial evidences, through the study of the conditions. The study of genesis is the way, the instrument, for properly analyzing the fact. The real

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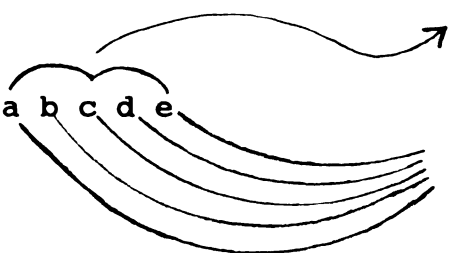
2. Dewey probably has in mind Hodgson's article "Illusory Psychology," Mind, xi (Oct. 1886), 478-94. This article is reproduced in John Dewey; The Early Works, Vol.1, ed. Jo Ann Boydston, (Carbondale: Southern Illinois University Press, 1969), xxv-xli. Hodgson wrote this article as a reply to Dewey. He argues that science and philosophy have different methods of approach, the one being concerned with questions of genesis and the other with questions of nature or essence.

way to get at the essence of the fact is to study the way it appears, grows. There is no such divorce between the reality and the circumstances in which the reality appears or takes form.

The attitude of psychology is historical, genetic. It treats of the facts simply as occurrences of events. The attitude of logic is normative, teleological. It treats of the value or validity of facts. The question is as to what is the relation between genesis and validity, between events as events and their value.

Mathematics was the first science to become scientific because it was the first science to find and apply the genetic method for the proper analysis of the fact. The definition of a circle is found in the mode of constructing a circle. The old definitions were all static in form, but they involved this principle of formulating the definition from the "how" instead simply of the "that," the "is." The good definition thus puts the fact and the production of the fact under your control. The methods of calculus operate through construction instead of through mere static conceptual analysis. This new, dynamic, constructive, genetic mode of definition in mathematics was first worked out in algebra. Kant was the first to contend (against Spinoza and Descartes) that the mathematical method is different from the purely logical (that of formal logic; the method of the mere analysis of concepts). Kant says that nobody ever proved a proposition from the mere analysis of a

concept, but always by the construction, the generation; of a line by a moving point and of a plane by a moving line, etc. Geometry is a science of construction in space. The perceptual and the conceptual, dealing with the contingent and circumstantial on the one hand, and with the essential and necessary on the other, are brought together. Of course when we speak of the genetic method in mathematics we do not carry over the time or temporal side of the genetic method, as for example in history and evolution. Genesis here means more than mere antecedent conditions in time. It means antecedent conditions or simply conditions teleologically or logically in the narrower sense of those terms. In the natural sciences we connect the explanation with the antecedents in time only to get at this teleological or logical mode of production. There is thus no difference in principle between the mathematical and the strictly historical sciences.



A,B,C,D, taken temporally simply, are not the generating conditions of the fact. They are only a partial expression of the real generating conditions which can only be expressed as the action and reaction of the parts in a whole. Take the theory of evolution in which the finished product is not explained by a mere inquiry into the temporal antecedents. We must proceed not merely historically in the

sense of mechanically, but genetically in the sense (in addition to this) of teleologically. We must continually reconstruct and reinterpret the mere anatomy of the dog in its various stages of development (racial and individual) in terms of the present adult dog.

Take the case of the evolution of the horse. We do not really explain the horse by a reference to the Eohippus, etc, etc.; but by an explanation of the process of interaction and progressive reorganization which we call growth. No sequence or group of these ancestors as bare disconnected facts give us the explanation of the horse, but their relations to and into one another. It is this fallacy that has made the popular mind think that evolution meant that man was descended from a monkey. It is no more true that the successive forms of the horse produced each the following than that the different parts of a triangle produce each other. The relation is more intimate. The explanation is to be in terms of the process as a whole, not in terms of the partial static form or fact. We are not to explain facts by mere sequence, but to get at the process which leads us to see them in sequence. The successive phases of the moon give no explanation of the evolution of the moon, or at least it is very meager.

The whole empirical logic (Mill, for example) tried to make all explanation reduce to mere uniform or invariable antecedence -- which is a paradox if not an impossibility. Antecedence and subsequence is never uniform or, when it is,

it becomes something else that we call necessity, etc. The distinction between the circumstances and the intrinsic quality of the fact is simply a reflective distinction. A metaphysics which makes this distinction and emphasizes it results in the medieval dualism. When the distinction is recognized to be purely instrumental in thought and the universe is regarded as organic throughout, this dualism passes away.

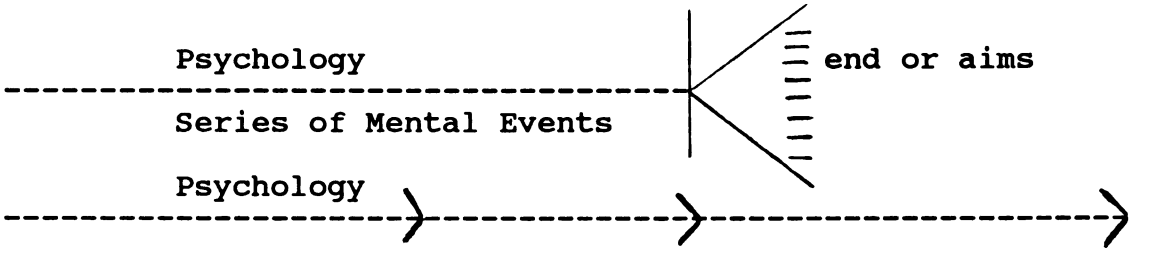
The matter may be got at from either of the two sides. What is the effect on psychology from ignoring the logical point of view, or upon the logical from ignoring the psychological point of view? The points of view are different, that is, the ends are different and hence the methods employed. But they cannot ignore either the other except in the sense of assuming each the other. There may be a suitable and convenient division of labor. But is there any subject matter left over for logic when the mental life is treated fully from the psychological point of view? Certainly not.

(1) Can we treat the psychical events merely as events without any reference to aims or ends which they realize? (2) Does the consideration of psychical events presuppose throughout reference to the realization of certain ends with reference to which these events take place? Certainly the latter.

While psychology may take the events simply as events, yet at every point there is at least a tacit reference to

the ends or results which those events imply. Logic makes explicit the consideration of these results or ends, makes them conscious standards or norms, and presupposes the psychical events (the series of mental happenings) as the machinery or mechanism through which these results may be brought about.

Let us take an illustration. The anatomist makes no conscious immediate reference to the health of the body. His inquiry is strictly de facto, not de jure. His investigation is irrespective of any ideal condition of what the body should be. But this position is ambiguous. For this end or aim of the healthy or normal body may be ignored (1) simply because it is so thoroughly taken for granted, or (2) because he eliminates it as irrelevant. What does he really mean?



The question is whether the whole body, whether the whole mind, has not been and is not organized with reference to these very ends (well-being in life) which have left their impress on every detail. The standpoint of the hygienist or physician is of course directly in this end of health, not divorced, however, from this de facto process.

But the question is whether the anatomist's interest is not also so determined, though more remotely, more vaguely.

Both have to recognize the end, but the anatomist takes that end simply in the form of a result that is brought about. He assumes it therefore; while the hygienist takes (assumes) that end as an ideal, as something to be attained, not as something already attained. He is interested in its reformation, its reattainment, reorganization.

This does not make psychology any less a positive science, not any more a metaphysical science. But it is the only point of view which makes possible the close union between the biological and the psychological standpoints.

Titchener attempts to represent the merely structural or descriptive point of view, an attitude of great courtesy but exclusion of biological considerations.[3] Yet they find their way into his psychology in spite of himself. He does not succeed in doing what he seeks to do: treat mind by itself. Compare this with James' standpoint, that he is going to treat mind in relation to its environment. He does not pretend to take pure mind, mind by itself apart from its concrete content. There is, in other words, a norm there. Mind isn't something in a vacuum. It must be taken in its environmental "setting."

The biological standpoint in psychology presupposes a certain end or aim, no matter how remote or vague it be. As

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3. Sic. A word has been inserted after "courtesy," but it is not legible. For more information concerning Titchener's position, consult his "Postulates of a Structural Psychology," Philosphical Review. Vol. 3 (1898), 449-465.

a matter of fact, this end (which as such is the interest of the logician) is usually only vaguely in the mind of the psychologist. From the statement of the mere sequence of events, what can you do with association of ideas? Can you explain or state intelligibly or consistently this doctrine if you regard it merely from the structural or descriptive point of view? No! It is necessary to bring in the end here to unify the scattered sensation, to make them a series. Hodgson would make psychology the same as physiology (thus taking the opposite extreme from Titchener).

Logical law and civil law, which are supposed to stand for what ought to be, are dependent ultimately upon the development of psychological and natural law, which is a generalization of how things do take place.[4] Suppose a man starting in a new business. His psychological law is his working principle from day to day. But at the end of the year when he feels that he has gotten a thorough grasp on the situation he stops and takes an inventory, takes stock, weeds out this useless rubbish and puts in that necessary machinery. The principle of his selection and criticism here is a logical principle or criterion.

There is a difference between laws in a factual and laws in a normative sense, and yet on the other hand they

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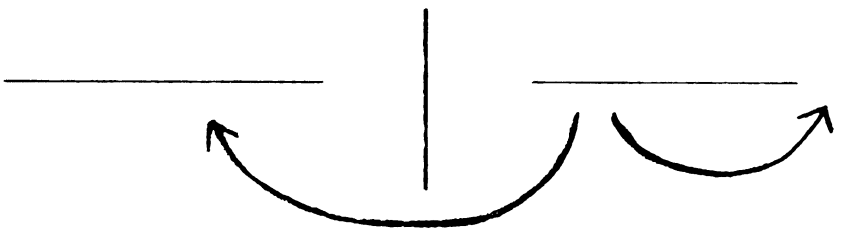
4. Prior to this sentence the manuscript has: "Here follows a discussion, aside, of the relations between civil and logical law."

are interdependent. No law, even of bare matters of fact, has to do merely with matters of fact. There is always a teleological implication, which in our positive sciences is very remote, but still is there. That is, in our developed sciences we seem to get away from the immediate categorical treatment of the facts as certain immediate facts, and to be dealing with conditions, that is, with facts under such and such conditions.

This is the paradox of action: that on the whole it is more practical to frame a statement which has nothing to do with this or that act so that we get a principle that is applicable to a much larger scope or range of acts. The statement of the scientific law is always hypothetical; given certain conditions, certain results follow. Scientific law is never the statement of a bare or mere matter of fact. Even so general a law as the law of gravitation still is conditional: <u>if</u> such and such conditions are such, then such and such results will follow.

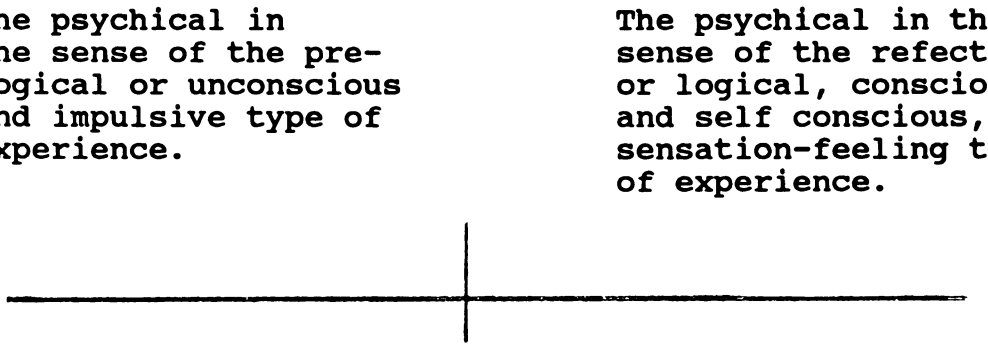
On the other hand, no law in the normative sense has to do with a mere ought or ideal as distinct from matters of fact. Every end or ideal, every norm, is simply a statement of something that is, or that has been; the abstraction of some result which is actually reached and of the way in which it was reached. The value of that statement as a standard for future action is that it gets rid of confusion, of irrelevant circumstances, and thus enables the individual to control activity in the future. Any purely descriptive

law, as soon as it gets recognized, at once gets a normative value or aspect and application. This is true even of physical laws. The art of engineering represents the application or value of the descriptive laws of mechanics. So medicine of anatomy and chemistry, so navigation of astronomy, so education of psychology and philosophy. Etc.,etc. The purely descriptive law passes over into a regulative or normative law. It is impossible to state a mere descriptive law in psychology without tacit reference to an end. And it is impossible to make a normative law in psychology mean anything apart from these psychological facts which give it a content or significance. The descriptive law is a statement of the way the process <u>did</u> occur. The normative law is a statement of the way in which the process ought to or <u>will</u> occur.



A descriptive law becomes normative when it becomes applied back to what has been done and to what is being done. Every law must have both its descriptive and its normative sides. The evolution of thought became logical when men began to reflect on the technique of their scientific or even their common psychical process, e.g., Socrates. The descriptive law corresponds to the categorical and the normative to the hypothetical judgment. There is a

real distinction, but this distinction consists in their being different aspects of the same thing.



It is impossible to divorce the psychological from the logical presuppositions and considerations. It is not possible to identify or classify any psychical process whatsoever excepting through an explicit or implicit reference to function. Perceiving, for example, or remembering, or conceiving, hoping, being troubled or affected, wishing, deciding, preferring, are all terms which name acts, functions, not mere states. They are acts. They are just as much doing something as to pick up a stone or to lay a stone in mortar. They represent what consciousness can do for us and can not be adequately described merely content-wise. Take the sensation or affect and then we get an abstraction supposedly on the content side, though ultimately even these must be explained functionally. They are inferred as factors in the process, not directly observed, not actual occurrences or events, but

abstractions. But this is itself a functional mode of approach, for we always abstract with reference to some end. It is a serious fallacy to attempt to resolve function into structural elements. We understand function, get our grip on it by being able to turn it over into descriptive or structural elements. For example, we would not understand vision very well without some knowledge of the structure of the eye. But this is not to resolve function into structure. The physiologist never supposes that his analysis and description of the structural elements of the eye is an analysis of the function of seeing. There are two different orders of ideas involved there, mechanical and teleological, means and ends. Study of the structure tells you how function is carried on, tells you what the machinery or means is; but it is not seeing. So if we inquire how these functions of perceiving and remembering are carried on, we may resort in explanation to the structural elements of sensations and affects. But this does not tell us what perceiving or remembering is. The sensation and affect are simply methodological devices, they are not constitutive elements of the function.

James' use of the term "sensation" is ambiguous. A function cannot have by any possibility a constituent element; that would be a contradiction in terms. Sensation and affect are rather contributory factors or phases or aspects when functionally treated than constituent elements. The reference to elements or constituent factors is really

the analysis of the total function into a number of partial or simpler more rudimentary functions, the breaking up of it into its detail (multiplicity) instead of taking it in the gross, as a whole. The fallacy here, of course, has not been confined to the so-called structural psychologist. Many who recognize function have regarded functions as if they were direct given data, standing therefore on exactly the same level as the structural material which the other psychologist insists upon--cf. the old faculty psychology. Instead of regarding perceiving, longing, hoping, as functions needing to be explained and which can only be explained by the finding of structural units, it took these functions as though they existed side by side with the sensations, affects, etc., not requiring explanation because they were regarded as ultimate; as if the physiologist were to speak of the retina, the lens, the iris, and also the seeing, as ultimate side by side.

This error lurks in the current doctrines of apperception, attention, and will as immediate cause or reason or explanation, along side of sensation and affect. The fallacy is that of taking the function as one among the structural elements which acts and reacts among them and with them. It is the reaction from this faculty psychology that has led to the emphasis on the other side in the structural psychology, in ignoring function altogether.

It is often said that for psychological purposes false reasoning is just as good as valid reasoning, while for

logic valid reasoning only is the end. This overlooks the fact that falsity has a functional bearing just as much as correct reasoning. Analysis of false reasoning, pathology, is just as instructive in logic as in psychology. The pathology throws light on the physiology, on normal reasoning. Pathology instead of getting away from the normal physiology, simply takes it for granted, presupposes it at every point.

You empty the psychological analysis of meaning when you exclude all logical reference. On the other hand your logical analysis must have a psychological background, otherwise you have a cross-section of experience with no statement of its origin or motivation, and no statement of its destination or end. It is like trying to define a line as lying between two points when you do not know where the two points are. The logical process lies between two points or termini, but you have to locate these termini; and this location of these points is a psychological matter. The distinction between the judgment in the abstract, without any context, any situation, any historical setting, and the judgment in the making, in passing, is the difference between the formal and the instrumental logic. We always <u>pass</u> the judgment. There are live and dead judgments as there are live and dead wires, electrically speaking.

The consideration of the judgment as growing out of and expressing some situation takes us into the psychological sphere. Suppose I say "This rose is red." I may take this

by itself, considering the elements in it, the subject, the predicate, the copula, the singularity of the "this," etc. This will not lead up to incorrect results necessarily, but to inadequate results. We must take into consideration further, or rather first, the considerations: When would a person make such a judgment and to what end? What would be the context? I might be looking among roses for a red one. Here I've got it. Or one might have thought that all the rose he had were yellow or white, and is surprised to find a red one. Or one may be trying to teach a child what red is. There is always some motivation. It would be fatuous to make such a judgment at large. This is Bradley's error. Hence his conclusion in his Appearance and Reality that it is self-contradictory. His error is in starting out with the implicit assumption that a judgment could be made in the abstract, at large.

Thus the psychological consideration must be taken into account in finding what are the limits from which the judgment arises and the limits over into which the judgment passes in its fulfillment. The logician, when he attempts to deal with a dead judgment, is not dealing with a judgment at all, but with a concept. That is, all thinking implies inquiry and discussion, with the final discovery at the end of a process of discovering. To treat the judgment apart from such a setting is to lose this inquiry and discussion which really makes a judgment a judgment. The pedagogical application is this: you always get a better basis for

thought in following an author if you imagine a situation in which the given judgment would be relevant or play some specific or valuable part. The judgment from this standpoint is an event, something that takes place in time and space, related to psychical events before and after it. This raises a temporal, historical, psychological question.

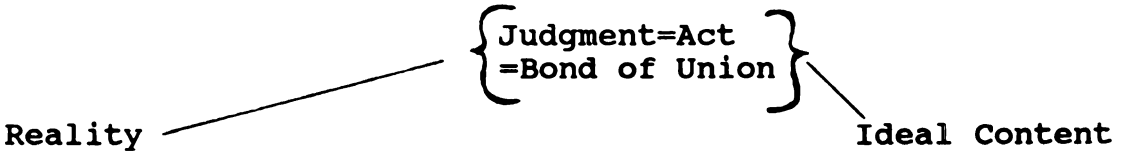
The question of validity is never an absolute one in the abstract sense. The reason Bradley comes to the point where he says that judgment breaks down is that he is in search of that impossible thing, a judgment in the abstract. The real validity of a judgment is found in its fitness or serviceability for some concrete situation. This is no less absolute, but it is not abstract (contra Bosanquet who claims that time considerations are irrelevant in the judgment).

Cf. the old discussion regarding analytic and synthetic judgments, for example as stated by Kant (previously recognized by Locke as the trivial and the instructive types of judgment). Kant insists that in the analytic judgment the predicate simply restates what you have already got in the subject. Matter is extended. "Extended" conveys no new information. This matter is yellow. This adds a new factor, that of "yellow." Almost all modern logicians hold that purely analytic judgments are not judgments at all, since they are mere tautology: white is white, black is black, A is A. Nobody ever makes such a judgment without a synthetic reference. The synthetic judgment which enriches the subject

is alone judgment in the true sense. Hence the very definition, the very essence of judgment involves some contrast and some relationship between the old and the new. Hence the temporal distinction is important (contra Bosanquet, et omne genus).

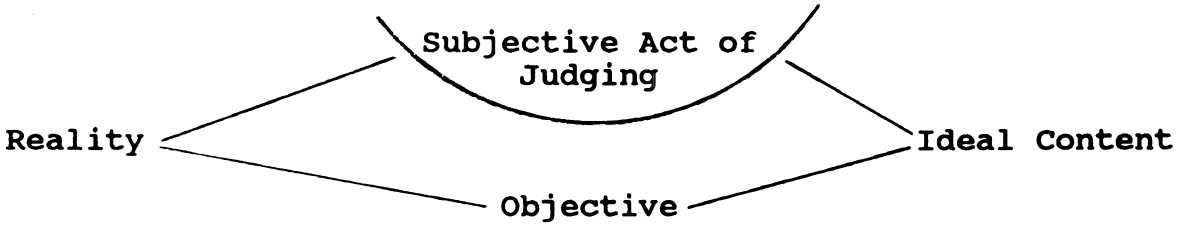
A being of complete perfect knowledge could never judge because his intellectual life would be mere tautology: I am, I am, I am, etc. He would be independent of time which is essential to any real synthetic progressive judgment. This suggests that such a conception of the Absolute is wrong. The Absolute is a dynamic growing Absolute. Bradley inconsistently insists that the synthetic judgment is the only real judgment and yet insists that the temporal element is irrelevant.

Bradley says, "Judgment proper is the act which refers an ideal content to the reality beyond the act" (p.10).



What has the judgment as an act to do with reality and ideal content? The act is an event (not a mere event, of course), an occurrence, something that happens, something that is done; temporal and historical in character. Has this act side, of judging in relation to the content, to judgment, an organic or a purely external relation? Bradley does not want to suggest that the reality is changed by or

affected by the act of judging. He insists that we do not make a whale a mammal in our judging, but recognize that it was and is a mammal before we made our judgment. He reaches the conclusion on p. 502 that the whole process of judging must be regarded simply as a change in our way of knowing, a change in our attitude. He is answering this objection or dilemma that is brought up against him: A is B, B is C, therefore A is C.[5] The real value of the act according to Bradley consists in taking "blinders" off ourselves (this discussion is found in the next to the last chapter on the validity of the inference). The thing is there but we change our way of looking at it.



Now this is saying that the whole import, the whole significance in the judgment falls on the psychological side. The way in which this is effected and controlled is a matter of psychology. If we say that the act side, the judging, the inferring, is the subjective side or act side (as opposed to the content or reality side), Bradley's position certainly makes the psychology of the judgment

5. The reference here is to Bradley's theory of inference. The move from A-B and B-C to A-C involves the principle "related to the same are related to each other." For a discussion of Bradley's views concerning this principle, consult Richard Wollheim, F.H Bradley, (London: Penguin Books, 1959), 159-171.

quite inseparable from the logic of the judgment, though no one is more strenuous than Bradley on the necessity of drawing a sharp line between these two sciences. Bradley's error is in making the act of judging merely a negative affair, getting rid of the impediments to envisaging the reality, the content.

Bosanquet (p.87) contends that the judgment is independent of time; that the temporal aspect is irrelevant. The subject and predicate certainly do not come after each other in consciousness. I do not first think "whale" and then add on "mammal." But they appear simultaneously. But this is not the question. The question is whether modification is necessary or not. The question is whether that modification of both subject and predicate is not the very process which is the essence of the judgment. The very essence of the judgment is revision, modification, that is, a live judgment. What Bosanquet says applies only to a dead judgment. (The formal logic always abstracted as far as possible from the time element. Hence it always put the judgment or the copula in the present tense: Socrates <u>is</u> a man; McKinley <u>is</u> the man who was elected President.)

Thus Bradley and Bosanquet would hold that the psychological side is mere scaffolding and that, after all, logic must stand on its own merits, while I would insist on the opposite--that it is impossible to state a principle in utter abstraction from the way in which it developed and is used. This origin and use is the very functional meaning of

the principle. It is only by a knowledge of the genesis and growth of the standard that we can get the standard to mean anything.

Lotze's argument overlooks the fact that the worth of a standard is not measured by any reference to any other given standard, but by reference to response which it makes to the conditions which generated it. What is the justification of a standard? Lotze assumes that the justification of a standard is in itself somehow, or in its relation to other given standards, or both. But the worth of the standard is found in the function which it exercises with reference to the historical processes which evolved it. This, of course, takes us back into psychology.

The value of the logical is precisely that it can be dislocated from the particular conditions which led up to it, that it can be transferred, taken out of the conditions which led up to it. But the conclusion does not follow that there is no organic connection between the standard and the conditions of its discovery. What we are after is some statement which <u>will</u> admit of such dislocation, because we are after a wider basis of control in our experience. We want to get a basis of action for controlling the value of our experience such that it will not be dependent on this or that particular element in our experience, so that it will not be precarious, but assured and accessible. Consequently the processes are so directed that we will reach this logical plane. The logical is something that has value in

terms of itself, but we still have to raise the question how there comes to be anything that is thus capable of discussion in terms of itself, and we get no answer to that except as we place it in the whole historical or genetic process.

The psychological is comparable to the paths which the explorer takes in laying out the country, or like the actual courses which the railroads take, while the logical is the map or chart which is fully made, which does not give you all the journeys that this explorer took but simply the salient general relevant routes; it is like the railway folder of the general railroad guide. The value of the map is to make journeys possible on the part of some more people. It has not got away from the making of journeys altogether, or it would lose its meaning. The logical implies a dislocation from the local, circumstantial, personal. But this dislocation is a highly important psychological process and we cannot understand the dislocation itself until we have found out <u>how</u> it takes place or is possible.

Among those writers who deny any important connection between psychology and logic, it is possible to trace the deficiencies in their logic back to an imperfect psychology, e.g., Lotze, Bradley, etc.

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Chapter Three

The Functional Value of Sensation and the Image

[EXPERIENCE AND ITS CONTROLS[1]]

We take up next the functional or teleological value of sensation, of the image, and of association of ideas.

[THE UNITY OF PRACTICAL EXPERIENCE]

As the term sense-perception is usually employed, it denotes simply the objective or cognitive side of the process, the knowledge of things in space or concrete events in time. But if we confine sense-perception in this way it is too limited for the basis of this discussion. But if we enlarge the scope of the term to take in the totality of any experience through the sense, it may be used in this place.

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1. This section of the Lectures is given a heading but no chapter reference. The heading for this section reads "The Functional Value of Sensation and the Image." This title is part of the original manuscript. However, above this heading another title-phrase has been added to the manuscript in script, and it reads "The Logical Elements." Both headings are somewhat misleading. Dewey is at one and the same time articulating and presupposing a new theory of experience. His aim is to reconstruct the interpretation of inquiry out of a reconstructed theory of experience. Reference to sensation, the image, and the association of ideas, is subsidiary to the actual substance of Dewey's remarks in this section of the Lectures. When Dewey says "We take up next the functional or teleological value of sensation, of the image, and of association of ideas," the reader should beware that his original classroom promise is not indicative of the substance of the discussion which forms this chapter of the Lectures.

Sense-perception is the whole of any experience which is mediated through a sense organ or a group of such organs. It involves a subjective as well as a cognitive or objective side and, at first, involves them without any separation. This distinction comes out only in reflection. In the concrete experience they are so fused or welded together that this distinction does not present itself at all.

This original unity is perverted in certain psychological doctrines which recognize these two sides of the sense experience but which consider them as distinct and, indeed, generally regard them as consecutive; the subjective coming first (pure subjective sensation), and the objective or cognitive coming later (the mode of referring to the object). So Lotze, for example, says that we begin with impressions, mere modifications of conscious states, purely subjective (cf. Lotze, Logic, I, p.14). Lotze assumes that the animal consciousness consists simply in successive subjective states. If there is a marked difference between the animal consciousness and the human consciousness it does not consist in that the animal consciousness is subjective purely and the human consciousness objective in addition to this. Rather, it represents experience in which the subjective and objective factors have not as yet been set over against one another in any sense. The animal consciousness is neither subjective nor objective in the sense of the abstractions referred to above.

The animal consciousness is impulsive as distinguished from reflective, naive as distinguished from sophisticated. We humans have such moments when we lapse into this type of consciousness in our moments of complete preoccupation or aesthetic absorption (for example, in the listening to music). We, upon reflecting on it, mark it off into subjective and objective factors. But we do not experience this distinction at the time. I would hold that the sense experience has originally an undivided unity, the factors not having been as yet reflectively differentiated. In preoccupation with an intellectual problem often we get "lost," as we say, in our thought. That is, the distinction between the problem and myself as wrestling with it fades or vanishes, and we look back upon the moment of experience as a moment of rapt undivided attention.

Does the child begin by having something as distinct subjective sensation, or is not his consciousness of quality from the first attached to objects which possess these qualities? It is a question whether the consciousness of quality is not made possible for him through this previous attachment of the quality to the object. He does not take a lot of sensations and organize them into the perception of an object; they are already so organized. If the sensation of red precedes the idea of red ball, then the child begins with the abstraction redness (so Locke), but empirical observation and logical theory would point in the opposite direction. The child begins with a total experience which

involves an object and, or an object in, a particular quality. That particular aspect or phase of the object is what later he distinguishes as the sensation. The child does not begin with sweet, but gets the thing which is sweet and then sweet is the angle at which he gets the object. At another time he might get the object as hard or blue or long or big. Instead of Lotze's theory being the truth, it is, on the other hand, difficult at first to teach the child to discriminate colors and aspects of things. We should teach children through the association and content of things. We do not begin with the abstract colors or qualities. The child will know "dress" before he will know "red dress" or "blue dress." But it is through his knowledge of "red dress" and "blue dress" as distinct that he gets clearly the idea of "dress."

The question is how and why does an experience which is originally neither, or rather implicitly both, subjective and objective, become consciously differentiated into subjective and objective? What is the genesis and the function of the distinction between the sensation considered as a simple modification of ourselves and that reference of sensation which constitutes its objective significance? The child does not experience "burn" in the abstract and then build up the idea of "poker." But the child begins with either "I-am-burned" or else "That-thing-hurt-me." It is a matter of accident or circumstance which way it is put. Both

would be involved in any experience of the child. The "I-am-burned" is equivalent to "Something-burned-me."

The objective reference consists in the determination of that which is found to control the experience. The short definition of objective is the factor of control; it is that which controls. The significance of the subjective, as the sensation as something distinct referred to self instead of referred to the object, is an excitant or stimulus to some further reaction which is not yet under control.

The person looking on from the outside would say that the poker burned him, or give a scientific statement of it, and would state how the child's experience came about, would give an explanation or cause of it. That would be objective. But the child would be himself interested in it simply with reference to stimulus for some further reaction, that which is going to be done about it, putting the hand in water, tying a rag around it, putting salve or soda about it, seeking mother to comfort him, etc. Thus sense-perception looks towards the means for controlling it, enabling us to do it again or avoid doing it again. That is the objective. It looks also as a stimulus for a further reaction and thus as something in itself. This is the subjective.

We never consider sensation as a conscious state, as a modification of consciousness as such, excepting when we are in the process of passing over from one experience to another, excepting when we are looking upon the old experience as the stimulus to a new experience. The psychical as such

is not a term describing a distinct order of existence but is a name which designates the data which arise when we are interested in a certain end, that is, the construction of a new experience, when we are interested in the construction of experience as such (contra ontological parallelism is psychology). The analytic psychology is that sphere of psychology which is interested in the various points which do serve for building up new experience, the exciting points of departure in the development of new experience.

The objective side of experience is the formulation in consciousness of the factor which is regarded as controlling and determining experience. This statement is synonymous with the familiar statement that the objective is the compulsory, the coercive, or the necessary. As the statement of the compulsory is ordinarily elaborated, however, it comes to mean a physical or existential coerciveness, having the experience forced upon one whether he wants it or not, without his will having anything to say about it. As Locke says, if we open our eyes we cannot help seeing something. It may be a horse or a stone, but <u>something</u> is obtruded into consciousness. This is the most ordinary criterion which is given for the objective. We do not make it. We have nothing to say about it. It is just pushed in on us. And that is the sign of its objectivity. Spencer has worked out this notion in a most tedious way in his psychology. It is often stated as that with which we come in contact in sensation, the

source of the impressions which come to us through the sense organs, the "given" in experience.

But what I have in mind is not physical existential coercion, not the thing enforcing itself on us, but rather the use of it as the standard and instrument of control in building up a new experience. It is compulsory not in the sense that we cannot help having this or that or the other experience, but in the sense that it has got to be taken into account, got to be reckoned with, if we attempt to construct any further experience. It is that which controls the success of any further reaction which we make. The objective is not that which forces itself on us, but it is that which regulates some other experience. It is objective in the degree that it shows itself fundamentally as controlling another experience. A whole metaphysics is involved here. Ours is a regulative or functional instead of a physical or existential sense of control. We cannot go into detail here. But the following reasons may be given for this point of view.

(1) This coercive theory, if it does not at once contradict itself, at least always has to compromise with its first statement. According to it we do not after all know the real or objective. It does not force itself upon us. It is simply the sign or effect of some reality which lies behind it. For example, it regards the clap of thunder as independent of me. But the clap of thunder is only a sensation, a modification of consciousness, and there must be some thing or force which is unknown behind. For example,

Locke held that there was an unknowable substance of which these qualities are the effects. Spencer shows this most clearly, however, in his Unknowable. He sweeps away all idealism, and regards reality as given to consciousness. He adopts a realism. But then he goes on to what he calls a transfigured realism, which regards these sensations as simply symbols or signs of the unknowable beyond simply which produces these results in us. His reality or thing-in-itself is a reality beyond, like Locke's unknowable substance and Kant's ding-an-sich. But we want a criterion or statement of reality as we experience it, as the common man and as the scientist takes it, the objective in experience, not the objective beyond or outside of experience. This theory is no assistance in the mature form which it is compelled to take to the logical point here at issue.

(2) From the standpoint of modern science and of physiological psychology in particular, it may be questioned whether there is any experience at all which is not forced upon us. Is an illusion any less forced upon us than a veridical perception is? I've taken some drug and get the sense of illumination. Is that any less forced upon me than the sunrise? Or compare religious delusions in seeing halo of light about the head of a loved one, seeing spirits, etc. There is always some adequate sufficient physiological condition for any mental state whatsoever. This criterion of reality, in other words, is a survival of a purely dualistic

conception where the mind is an entity by itself and is regarded as capable of producing one set of effects and matter another set of effects, the one governed by imagination, will power, etc., the other by law, mechanical necessity, etc. A thorough-going materialism is the best introduction to an idealism; you are more likely to find your way out than if you remain in dualism. An absolute determinism is the best introduction to a true or adequate theory of freedom. There isn't any experience that isn't real and objective in a sense; real in the sense that it is in experience, objective in that it has its own adequate condition. We shan't succeed in finding our objectivity from the side of origin, from where the thing comes from, but from the other side, from the use that is made of it. The reality or objectivity of an experience would be that experience taken in such a way as to lend itself to the organization of further experience. If I see a ghost there is a reality to it. But I may react to, treat, handle, that experience in different ways with reference to future experience. I may take it as the ghost of some deceased person and build up my world on that basis. I may take it as some subtle retinal stimulation or as due to a congested state of the brain circulation. And the world I construct will be a very different sort or a world.

The question of origin (which of course is relevant in another connection) is not whether or not there is objectivity, but how it comes to be, the method of its

evolution. This will be taken up in the logical doctrine of causation.

The way the man sets to work to define what kind of a reality the ghost is, he is engaged in and uses the mechanical principle of explanation. But after this statement has been made by an analysis of its conditions of production (after all, that statement is still hypothetical rather than assertative or categorical), it is the reaction or response that we make which is the final criterion of whether it is real or not. There is the movement back and forth in testing whether it is thus real or not. Any process either of observation or reflection is tentative until it has been tested through some experimentation, some response, some reaction which is the ultimate criterion of the reality. We reach a decision, say, that so and so is real: this means that we will act so and so. We act so and so and in that acting our decision is tested and revised and corrected, and here we have the aspect of testing the decision after, as we had the aspect of inquiry and investigation before the decision.

It is because we have got to act, because we are moving forward, that we turn back, reflect, observe, and ask the question as to what the reality of the thing is. We take the attitude which looks towards the conditions because of the necessity of the acting. The criterion stands for the teleological reference of the act. The conditions for action stand for the mechanical explanation of the production of the act.

We have got to act. Now the process of asking and defining how this act is going to take place and just what the act is to be, must be stated in mechanical terms, is the mechanical side. The same process viewed in turn from the other end, from the side of the act as already having taken place, must be interpreted in teleological terms, is the teleological side.

Suppose we let the metaphysical reality equal X. Now how does science and ordinary experience go about to determine what is real and what is not real? What is the criterion which is actually used? For example, light is defined as waves of ether, but this gives no answer to the metaphysical question as to what reality it is (that is, in the ordinary use of the term metaphysics). It is a statement of what it is in terms of what we can do with it. The existence or non-existence of reality metaphysically is a matter of no moment for science and ordinary practical purposes. The important question for these spheres of experience is, What can you do with it? Hence logic is concerned with reality in the same way simply and from the same (teleological) point of view as science and ordinary experience. It asks what kind of an experience is this connected with the light, not what the light is in itself apart from all use. If we find ultimately that when we have explained fully the use of light we have therein given the whole and only possible metaphysical definition of light, that will be alright. But the present inquiry in logic is not concerned with this

question simply because it does not and cannot help logic to get along in its task any. Reality is defined with reference to use, in terms of condition. Matter is means. Mind is ends. Reality is experience, that is, the whole relationship of means and ends. Reality is just everything. Of course, it is difficult to talk about reality in any sense which shall be at once comprehensive and comprehensible. When reality is used in this most comprehensive sense, its intent, its content, as Hegel pointed out (due to necessities of language) is so general as to be not specific. That fact is that this is not an empty universal, but a many in one. It is everything. Is the lamp matter? Yes, just so far as the lamp presents us with means in action. Would there be any lamp there if there were not any ends to which the means have reference? No, of course not.

(3) The physical coercive theory compels us to draw a line between fact (or thing or objects) and law. Things, either in their ordinary sense or taken as atoms or molecules, may have this eruptive compulsory force; but law obviously cannot have. Hence the position in which this theory finds itself. The working principle of science is that law is somehow more objective than mere things. Objectivity is deeper in the law than in the particular thing. But this philosophy is compelled to identify reality with the particular thing or entity which can exercise the force to compel a certain state of consciousness upon us, and law it must regard as a purely mental, subjective thing, a device of

classification or of collection of particulars, or something to aid the memory or as a product of words. It is regarded as not objectivity because it lacks this essential trait of objectivity, that of coercing impressions on consciousness. But if what we mean by the object is the fact of control, then law compared with the thing as the object represents a more generalized form of control. The thing is a mode of control under limitations, a particular mode of control. The law is the control stated in general form.

(James' chapter on habit. He finds the basis of association in a neural path the continual traveling of which makes the transmission of subsequent impulses easier. He makes it a mere matter of accident as to how this path first came to be traversed. But is it a matter of mere accident as to where the point of highest tension is and as to where the point of lowest tension is found? If there is some functional principle which determines this, what is it? On p. 594 he seems to imply that the effects of attention and volition are over and above those of habit, which has a kind of prepotency. Is this effect of interest and attention something which lies outside of association which is selective, or is it simply the recognition of the functional factor which is everywhere? The fact is, James simply gives us a double statement of the same thing, a mechanical statement from the standpoint of habit and a functional or

teleological statement from the standpoint of attention, interest, volition, etc.)[2]

[THE ROLE OF STANDPOINTS]

There is an ambiguity in the use of the term "sensation:" (1) the reference of a sensuous quality to an object, and (2) to a thing as producing the sensation.

How do I get this sensation of "red?" Why, from the book. That quality of "red" is referred to the book. This is the ordinary explanation. But it does not follow from that that it is the book apart from me that has the quality of "red." Modern psychology tends to go to the other extreme and say that the "red" is exclusively in me. We get a statement of waves and refraction of light, study of the optical apparatus, etc., etc. The truth is, of course, that the "redness" is in the total act or moment of experience which consists in me-looking-at-book.

Now the question is what is our interest when we raise (1) the question as to our mode of referring to an object, and (2) when we raise the question as to what produced the sensation?

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2. I have set this paragraph apart by parentheses because it functions more as an aside than a continuation of the previous discussion.

The metaphysical questions arise from the confusion and lack of organic relationship between the various standpoints, all of which are necessary and each of which is sufficiently coherent and systematic in itself. But as each point of view is taken up by itself and emphasized, it becomes isolated. It is out of the failure to realize that the abstractions are abstractions that the metaphysical questions have any existence at all. There are instead three modes of approaching a subject: (1) the practical (as including both the receptive and the active sides, not simply the active side. By receptive side is meant whatever has to do with the immediate satisfactions of life, whether sensuous or ideal in character; the taking of satisfaction or enjoyment in anything, the aesthetic side. By the active side is meant everything concerned with the putting forth of effort and of reaching ends), (2) the logical, and (3), the scientific.

THE PRACTICAL STANDPOINT (1) We commence with an integral experience which does not present the aspects of subjective and objective in any distinction at first. We all remember the shock with which we first heard that color was not real, but subjective; that out there there is nothing but vibrations of ether. In the early life of the race what we would call psychical or subjective attitudes are ascribed to things, and material attributes are ascribed to what we would call the psychical or mental. But here they are not so much confused as not as yet differentiated. We do not stop

to think that the tooth is material and the ache psychical. This experience has not yet been so broken up. There has been no occasion for it as in the other spheres. So it is with almost everything with the savage and with the child. There is no conscious separation of subject and object, much less of object regarded as a thing which causes the so-called subjective side.

The chief category of the practical is that of the sequence of acts and states as producing each other (that is, instrumentally). If I take hold of the hot iron, I will get burned. If I use the hammer in such and such a way I will drive the nail. If the oven is hot, etc., the bread will get baked. Do this, and something else will happen. If you get such and such experience this other experience will result. It is not stated scientifically, but simply a practical generalization.

The two chief characteristics of the practical point of view are (1) the integrity of the experience (it is not differentiated into subjective and objective), and (2) the use which is made of the conception of agency as a means of getting or avoiding something else.

The distinction expressed in ordinary language by the noun and the adjective is found, however, in this practical type of experience. The mind never sees merely a table or merely a ball, or merely a chair. There is always some phase or aspect which is salient, which serves as a handle, which is uppermost. We always come in contact with it on this or

that or the other side (cf. James' teaching of the selective character of consciousness and attention).

The thing is substantive; the aspect which is salient, the medium through which we approach the object, the aspect which is the greatest concern to us at the time, is the quality, is adjectival. The moment the plain man talks about a red ball, a hot iron, or a sweet apple, he has made a distinction between the substantive and the attributive. Now what does this distinction mean? What is involved in it? It is a distinction of the substantive and the attributive. But what does that mean? Negatively, it does not mean a distinction between something which is more real (or objective) and which is less real (or subjective). The whole question of the subjective and the objective does not come in there at all. The boy does not suppose that the redness is any less real than the ball, or the heat than the iron, or the sweetness than the apple. These qualities are the things as we get them. Positively, it is a distinction of values, of quality of importance (not necessarily of quantity, i.e., not more or less quantitatively at all).

The substantive is regarded as the background, basis (in a practical, not in a metaphysical sense). In that sense it is the more important. The qualities belong to the thing, not the thing to the qualities. It is not a substance in the metaphysical sense, but simply it has the value which gives other values. If you have the orange you can get the taste of the orange, but you cannot get the orange simply by

thinking of the taste of the orange. You cannot go from the burn to the poker, but you can go from the poker to the burn.

The quality or attribute is secondary, derived, the handle of the pitcher, not the pitcher itself. It is part of the pitcher but, after all, it is secondary; it is the way you got hold of the pitcher. The quality is indicative of the thing, characteristic of the thing (at once objective and subjective). "That's a good orange!" The "orange" is substantial. The qualities, form, color, flavor, etc., are the attributes. These are not separate ontologically. The substantive is remote, mediate, "objective" in the Hegelian sense of result or "objective point." The quality is immediate, salient, of interest to us. It is characteristic, "subjective" in the Hegelian sense of "agency," influential.

The quality which is immediately present is the determining fact, the agency fact, the instrumental fact, in realizing these aspects of the object which are in the background, which are more remote. It is immediate not only in the sense that it is the part most fully experienced, but in the sense that it controls what is coming next. This "background" is the objective, the salient feature in the foreground is the agency side or the influential side, the subjective. Whatever you see, feel or touch influences something else. You see that that is a nice orange, you buy it and handle it, and you get the orange from new points of

view. These points of view successively constitute the "objective points." We, of course, never get a quality apart from the substance or the substance apart from the quality. They are simply different points of view, not two orders of existence.

[THE LOGICAL STANDPOINT] (2) People make mistakes, serious mistakes, mistakes which are not simply incidental. These mistakes suggest some reason. If a man makes a mistake in buying an orange, he might regard that as an incidental mistake, he will make a better guess next time or wait for better data. A great many of the Platonic dialogues represent these more serious mistakes. Cf. catch puzzles. Take the case of the sun's rising or the sun appearing to do one thing while it is really doing another thing. The Greeks became convinced that there was some general source of error and also some general source of truth. The logical standpoint is simply the distinction which gives us the distinction of truth and error and tries to find some general statement of the nature of truth and the nature of error. The following, in the Republic, is an example of what was a real problem for them. A thing cannot be two opposite things at the same time. This finger is bigger than that? Yes. It is also smaller than this finger? Yes. Then it is both smaller and bigger at the same time.

The origin of psychology was, so to speak, pathological. It was to account for mistakes, for errors, that it arose. Exactly parallel with this is the fact that

physiology began in pathological anatomy, in the study of wounds and diseases.

You cannot dispose of error as merely subjective. Error is a part of experience (of reality). You have got it yet. You can't get rid of it by calling it error. The Greeks recognized this.

The Greeks decided that the substantive is always the real. The seeming or the mere appearance, the adjectival, is always the error and the source of error. This view also forms, if not the backbone, at least a good many of the other bones of our thinking today. Every child is brought up today in this metaphysics of the Greeks and Middle ages. Substance is the to a ousia of the Greeks. Metaphysics arises out of this confusion.

1.Practical	Substantive	Adjectival or Characteristic
2.Logical	Truth Reality (Objective)	Error Appearance or Seeming (Subjective)
3.Scientific	Physics investigates the objective world, or matter.	Psychology investigates mind or the subjective world.

Aristotle spoke of the properties which belong to substance and of the qualities which belong to us. Of course, if all the adjectival were to be put over under the subjective, the objective would be either empty or unknown, hence Aristotle's division.

The Greeks referred the adjectival or subjective to sensation, the Atomists, Democritus and Leucippus, just as much as Plato and Socrates. This is exactly Locke's distinction between primary and secondary qualities. The Sophists drew the conclusion that all knowledge is through sensation, hence no certain knowledge is possible. They did not reach the point of absolute subjective idealism. They had become subjective in a sense, but not psychical. They did not make reality mere sensation as did Berkeley. They had one leg in each world still. The "image" of Plato was something at once presented and the presentation, something partaking of the nature of both worlds.

[THE SCIENTIFIC STANDPOINT] (3) By the scientific is meant the question of the concrete specific examination of the nature of the case. This would not arise excepting <u>with</u>

the logical attitude. The logical and scientific attitudes are simply related as general and particular or specific. The scientific mode is the logical interpreted. This interpretation of the logical may take place either in the metaphysical or in the scientific form. I reject the metaphysical and adopt the scientific interpretation.

The metaphysical movement consisted in transforming what had formerly been a merely fluent relative distinction into a fixed distinction, so that the substantial was regarded as the true and real and the qualitative, or adjectival side, if not error, at least the source or region of error, of appearance, of seeming. Simple distinctions of value, of emphasis, of importance, were transformed into distinctions of existence. This universalized, becomes psychologically the doctrine that the senses deceive, the understanding gives truth, or that particular sense experiences are apt to be erroneous and other sense experiences must be substituted for them.

The orange proves to be bad. Now instead of making a simple particular experience of it and buying another orange, suppose we stop to examine into the source or cause of the error and of error in general. Then we decide perhaps that it was the sense which deceived us. Idealizing this standpoint we think of the reality as somehow something outside of and different from the seeming of the sense. The reality side is put over somewhere outside of the sense experience. The integrity and fluidity of experience is lost and

a divided and fixed conception of two regions, one of reality or truth, and the other of appearance or error, is adopted.

The adjectival side is indicative, exponential, interpretative. Man is sick... "Sick" is the side that strikes us; the adjectival or interpretative side; the index or exponent. But we find that we were in error in this case. We judged from the fact that the man was pale that he was sick. But he was or appeared pale because he stood in a certain light. Or, he wasn't white because he was sick, but because he was scared. This whole qualitative, adjectival side is purely relative (cf. the illustration above from Plato about the three fingers). The quality is never an inherent attribute of things, but is always in flux, relative (as Plato brings out in his Theatetus).

There may be two sources of error. (1) In the identification. The quality may not be what we take it to be. We need some criterion for determining what it really is as contrasted with what it seems to be. The reality is not something belonging to a different region of being, but something is simply interpreted differently, can grow out of the one into the other just as one grows from babyhood into manhood. It is not the man that is white, but it is some reflection in that peculiar light. (2) In the interpretation. There may be correct identification but a wrong interpretation or reference of it; the inference or explanation is incorrect.

The distinction between truth and error, reality and appearance in the sense of seeming, is not a distinction between two orders of being, but simply a psychological, an historical distinction between two developmental states of the individual.

(1) The problem is to find methods which will control the process of identification and control the process of reference or interpretation. All the quantitative aspect of science has for its primary object the control of identification. The quantitative categories arise from the effort to get rid of the errors and illusions which are incident upon our ordinary apprehensions or identifications. The quantitative statement is the statement which endeavors to give a description or identification which is not subject to error, which carries within itself the means of correcting the errors. Any given quantitative statement may be erroneous, but it has within it the method for the correction of this error. By quantitative is meant here accuracy of measurement in description. As long as you throw your statement in qualitative form it is still vague, not explicit, relative, dependent on something else which is not explicit. Is his face white, or is it the light, etc., etc? But if I can make a quantitative statement the supposition is that I am confining myself to what is there. The space and time elements are the facts that are seized on on the quantitative side. It is <u>so</u> big, lasts <u>so</u> long a time. We ignore the quality for the time being.

Speaking from the standpoint of the development of the scientific method, the quality from this point of view is ambiguous. It offers itself as an index, as an exponent, as leading us to an interpretation. But it turns out itself to be an interpretation. The object of quantitative description is to eliminate this element of interpretation, and to strip the thing until we get down to something that is bare and naked in itself, which is on its own footing independent of anything else. If I say it is white, I have still to search. But if I say it is a foot long, that can be verified immediately by other persons. Thus the unit of mass, the unit of space, and the unit of time, or so much mass moving through so much space in so much time, is the ultimate formula of the scientific quantitative statement. The supposition is, then, that if we have such means of identification, then there is a method of control. It is not of course infallible, but relatively it answers the purpose.

There is a problem here. Is this a real elimination of quality or does it after all presuppose and imply a certain qualitative basis? Chemistry simply dodges this question, yet it assumes that there are ultimate qualitative distinctions. Of course, any qualitative element is irreconcilable with any thorough-going materialism. Look up Hodgson's Metaphysic of Experience on this point. Can you have even the distinction of space and time without some such ultimate qualitative distinction?

(2) But we have to control not merely the identification or recognition, but its reference, the use made of it, its explanation or interpretation. What is it that guarantees the connection between this fact and those? We are not interested to try to ground a phenomenal existence in some sphere of reality more fundamental, but simply to trace the transformation of this from some other experience more fundamental. I drop the pencil on the desk. The scientific procedure would give a statement of so much mass, impact, waves, intensity, pitch, etc., describing <u>how</u> it happened. Science simply regards it as a continuous change of form of something else into this--always a thing of some kind. It does not go outside of the physical in its orderly explanation. The standard here is the principle of quantitative identity, conservation of energy, indestructibility of matter. If you have more in the result or consequences, then you have brought in something irrelevant and vice versa.

Science assumes, in other words: (1) Homogeneity of mass or matter. The Greeks assumed on the other hand, a heterogeneity of matter, e.g., a difference between stellar and mundane existence. (2) Relativity of space. One point in space is determined and located by reference to other points in space. There is nothing absolute in space. (3) Continuity of time or motion.

These are simply more detailed statements of the principle of quantitative identity. This is what we call the mechanical explanation, referring everything to other things

of the same kind. This is the scientific explanation in the narrow sense as distinct from the philosophical or teleological explanation.

The scientific attitude arises in the attempt to so control processes of observation and interpretation as to avoid error and get the maximum of certainty. It is convenient from the standpoint of method to distinguish the two aspects, the control of observation and the control of interpretation.

(1) We must eliminate in observation all particular or specific interpretation of inference, that is, in good observation. Mill says when a man says he met his brother on the stairs he really makes an inference. What he really observed was a man, that it was his brother is an inference, an interpretation.

Science attempts to reduce things to a quantitative statement in space and time in terms of mere observation, so far as possible, apart from interpretation. Certainly such measurement eliminates any specific interpretation or inference. The man really met on the stairs a certain mass of matter, occupying so much space, of a certain density, during such a time, etc., etc. This is the scientific statement of what the practical man experienced when he says he met a man (by inference, his brother) on the stairs. Of course there is not entire absence of quality. He did not say that he met so much quantity, but a thing or what-not, which has so much quantity, etc. Here the metaphysical theories have

come in and laid emphasis on this residuum of quality, of being, of substance. But does not this quality refer as much to the subject as to the object? The quality can be "thing"ed down, but the reference to the subject is there just as much, so that the dualism of metaphysics really has no basis here.

(2) Now while science is simply trying to get free from doubtful interpretation, yet in the long run its aim is some or an interpretation. To explain, to state the relations or connections of the material, is as much a part of the complete scientific ideal as simply to describe. Interpretation is a part of the scientific end in view. Is the man pale? Is he pale? If he is pale, does that after all indicate that he is sick? In the case of the practical man some response is implicit in the reference, in the interpretation. If he is sick, he ought to go to bed, change his habits, change his diet, or take some medicine. This is the indicative side of a certain mode of responding. The scientific mode of control gets at it from the other end. The practical man is interested in its indicative aspect. He makes his inferences with reference to what he is going to do, what response he is going to make. The scientific man asks the relation of this object or experience to other objects or experiences. Consequently science finds the connections of the thing with other things, of the event with other events.

Since it has described the object or event in terms of the units of space and time and mass, so the other things

with which it is connected are stated in terms of the same units; and so we get the homogeneity of mass or the indestructibility of matter, continuity of time or equivalence in the correlation of energy (change in form but no loss or gain in the amount of energy), and relativity of space with the principle of uniformity of nature. "All spaces and all times are alike to the events which occur in them." (Clark Maxwell) The given event or change is not made different by occurring there or then instead of here and now.

Take the scientific discussion of combustion. The scientific ideal is the statement of identity of quantity, through continual change, as connecting the two termini of the occurrence. You begin with, say, a certain amount of wood. For a long time in the history of science, this wood was not all accounted for in the ashes. But when the gaseous factors were taken into consideration it was found that they exceeded in amount that of the wood. Thus it was found that oxygen united with the wood in combustion. When all this is accounted for, the scientific account or explanation in the narrow or proper sense of science, as mechanical (physical science), is complete.

Science as science has nothing to say of the teleological or functional interpretation. Observation is science. Interpretation is philosophy. They are two aspects of one process of knowledge. Metaphysics (that is, historical metaphysics) is 000000. The scientific point of view is an abstraction. The philosophic point of view gathers up the

scientific point of view and is the real or concrete, not an abstract statement.

We are speaking here of physical science. Biological and psychological science is really a combination of science and philosophy, of physico-chemistry and philosophy. Any physical science before it becomes useful must be interpreted in functional terms, must to that extent become philosophical. The scientific point of view is a temporary abstraction with reference to better functioning. The mistake of much biological and psychological science is that it leaves too soon this strictly scientific point of view and sticks the function in before it is ready for this process of interpretation. This scientific point of view represents, as Descartes showed, the doing away in science with the so-called occult forces, latent forces, etc. We would not say that a thermal phenomenon was due to heat at large, we seek to state it in terms of other mass units, motion units, time units, etc., etc. Science as science goes into the historical or genetic side only with the aim of getting one abstract timeless or processless statement for the whole process. It is alright <u>to try</u> to interpret in terms of function all the time, but to put in a function as a term of the same kind on the same level with the other phenomena, as for example putting in the "vital force" in biology as one of the phenomena to be taken account of, is the error. Of course, there is the opposite error of the too abstracted scientist who never attempts to or thinks he avoids this process of

interpretation, this philosophical interpretation. This scientific point of view also has itself, by mixing things, given rise to a bad metaphysics, materialism, which makes changes in matter and motion the reality. It forgets what science set out to do, which was to give the methods or instruments with which to control or direct immediate experience. To say that what it gives us is the reality would be like saying that the pick axe is the gold mine.

There is, of course, a close connection between the descriptive and the explanatory sides of science. The two phases of description and connection or interrelation actually work into each other in all scientific procedure to such an extent that it might be said that from the standpoint of the method of physical science any complete description passes over into the statement of a law, establishes a connection, and on the other side the statement of the connections are only an enlarged and extended description.

Suppose it is a case of the weather, in which certainly the descriptive statistical side greatly overlaps explanation: registration of the rainfall, of the temperature, of the barometric pressure, of the velocity and direction of the wind, etc. A complete description could not be made if all connection and interconnection were wanting, if there were absolutely no laws. <u>If</u> a certain fact can be described as the coincidence of a certain temperature with a certain direction and velocity of the wind with certain barometric

readings, and the person is confident that he has got a complete statement without irrelevant material from the statement of other facts, the statement in so far as it is complete and accurate (i.e., from the standpoint of physical science) transforms itself into a generalization, a law.

Take an historical case. When Sir Isaac Newton was able to state to his own satisfaction the falling of the moon, it became necessarily a generalization -- that of the law of gravitation. If you can be sure that that equation is a description of the case, then you can be sure that under all like conditions the same will hold true. That is, any analysis so far as it is made accurate, precise, complete, becomes of necessity a synthesis. The analysis so far as it is merely analytic is merely confined to getting the irrelevant out of the way. Analysis is the statement of the exclusive or negative, synthesis on the inclusive or positive side. So far as it is a connection of terms it is a connection of terms. If it is so here then it will be so everywhere. If it is not so everywhere it is not so here. The development of scientific practice has consisted in showing that the principle of identity and contradiction are useful rather in defining and stating the hypothesis that in proving it. The real proof consists in the verification, the experimental reaction. The scientific proof utilizes this principle, but does not consist in this principle in its bareness. We derive the principle of identity and contradiction from the practice, [it is] an abstraction or formulation of what is

involved on the practical side. Once accept that statement in quantitative terms (of continuous change, homogeneous mass, etc.) as the scientific statement, and it is at once apparent that it is only an enlargement of what you get on the descriptive side. This gives quite a different conception of causality from the ordinary one.

The ordinary conception of causation is really a confusion between the practical and the strictly scientific standpoints. The whole idea of a cause and an effect has no place in science. Reality is just a statement of an order of continuous change, only a change or modification in form. The principle of agency (so-called freedom of the will) holds, of course, in the practical world. But in the strictly objective scientific world, which is an abstraction in its point of view, only necessity, mechanical causation can hold; and this is not in the ordinary understanding of causation but only in the sense of a change, of a transformation of a certain amount of energy which, from the scientific point of view, is fixed, indestructible. The whole object of the scientific statement is to eliminate this principle of agency as over against something acted upon, to eliminate this principle of initiation, of the so-called freedom of the will. If any thing is free it is the whole that is free. There isn't a part in the whole which is free and the rest necessary. That would be chaos. There is no relation of cause and effect scientifically at all. There is one immense fact, with redistribution of parts and change of

tension between the parts. Of course, all kinds of metaphysical problems come in here in the false idea of causation. Taking for granted this separation between cause and effect, the great metaphysical question has been how this chasm is to be bridged. Cf. the whole doctrine of the freedom of the will and the whole discussion of the relation of mind and matter. Metaphysics brings in here the category of causation where it has no relevancy at all. If changes in the brain produce other changes in the brain and also produce consciousness, then the materialist, it has been charged, contradicts his own position since he gets an effect which is not in the cause. So Huxley and others have resorted to the doctrine that consciousness is a sort of phosphorescent glow or epiphenomenon, a methodological absurdity.

The logico-metaphysical error is that of taking abstractions from experience and reifying them. The Platonic philosophy took a value in experience, the idea, and makes a thing out of it. This gives us a sort of fixed metaphysical spiritualistic idealism. The physico-metaphysical error is that in which the concepts of fixed objective qualities, relations, etc., get reified. This gives us the materialistic metaphysics (materialistic idealism usually). The interpretation of scientific results was at first materialistic in this sense; matter as mass in motion, etc.

So the logico and the physico-metaphysics came to be two rival systems, both using the same categories but giving a different content to them. But they are not really rivals,

since each is valid, necessary to the other, part in an organic whole of interpretation. The conflict comes only from reading in meanings the one into the other[3]. Historically these have been interpreted as rival systems of the universe, and it has been held that we must adopt the one or the other. But the older metaphysics resulted from transferring the relations of value which result from the practical experience into a series of ontological entities and forces which are related not in a fluid, dynamic, teleological way, but in a fixed order of being itself; while the metaphysics of science, which as ordinarily stated becomes materialism, consists in stating the methodological abstractions and results of the scientific point of view as if this was a complete and final statement of the order of reality.

It is interesting in the history of logic that consciously and explicitly in many of the medieval writers logic was given a preliminary and propaedeutic rather than a material and ontological value. Yet those very same writers are very apt when you come to the content of their metaphysics to transmute the purely logical distinctions into ontological ones. Take the extreme realists, where the ultimate universal is looked upon as the most real (the concrete individual of sense having the least degree of ontological validity). This is an example of the error of hypostatizing a logical abstraction, of hypostatizing what are really only logical distinctions. The Neo-platonists best represent

3. A word has been added to the manuscript after "meanings," but it is not legible.

this, and the influence of this tendency is seen also during the middle ages and even later.

To recapitulate. What after all does this whole scientific movement start out to do? What is its aim? What is it doing in attempting to make this statement in terms of matter and motion? It was and is seeking a statement of the conditions which control modifications or changes of experience. It is not stating experience, or the reality of experience, as a whole. It is stating the objective reality, not as something in itself, apart from experience, but those factors in experience which have to be taken into account in the production of any further changes in activity. The object is that which controls any response, any effort, any reaction, any activity. In its accuracy it is of course necessary to economy of effort. In its connectedness it is necessary to determine the character of the ends which shall be proposed, that is, only such ends as are realizable, as are congruous with the ends in view. Negatively it is to eliminate going off on a blind trail, going off on a line which would involve friction. Positively it is to clear up the direction of further experience, showing what is feasible and how far it is realizable.If a man thinks there is a connection between the phases of the moon and the planting of potatoes, he is wasting energy and acting blindly. But if he finds a scientific connection there, then he can define his end and save fruitless random reaction.

[THE PSYCHOLOGICAL STANDPOINT]

Psychological science stands for that from which physical science abstracts.

Starting from the practical stage with its functional and fluid distinction between the substantial and the adjectival, the point made about the adjectival was that while in one sense it was attached to something else, yet as a matter of experience it is the immediate phase of experience, while the substantial is the background. If I say the poker is hot, it is the hotness which is the immediate point of contact with the more remote part, the poker. It is not only immediate, but it also gives the standpoint or attitude which determines our relationship to the substantial phase, and determines the relation which this substantial phase has to us. The two points to be kept in mind are (1) that this adjectival is the immediate in experience, and (2) gives us our point of view for estimating the value or worth of the substantial.

Leaving the matter of its immediacy aside for the present, note that we have an apparent conflict or contradiction. In one sense it is the object which controls, determines experience. That is what the object is, the determining or controlling matter in experience. But looking at it from the other side it seems as though it were this direct, immediate phase of experience which determines the worth of the other, which determines the object. Our whole interest in the poker in this particular experience is determined by

the fact that it is hot. Hot is the handle. Generalizing this, we might say that it is long, or thick, or heavy, or curved. But there would always be some immediate phase which would determine the import or significance or meaning which it would have for us.

If we say that the objective or substantial is what determines our success or failure, controls results, it is this adjectival phase which gives importance or value to these results. It changes a possible result into an end to be attained or to be avoided. What we directly experience gives us our point of view, our point of contact, our point of interest, from which we determine the value of the rest of the object. A man does not want a horse at large. He either wants a dray horse or a race horse or a safe family horse. Now this side of immediacy is the psychical which is abstracted for the standpoint of psychology, i.e., psychology as distinct from philosophy, i.e., as a science. The more remote is the physical side and is the complementary abstraction which forms the datum of physical science. This aspect of immediate experience is an aspect of interest, or of value, or of concern. While immediately this seems to have a value of its own, also it becomes at once an attitude which determines the way in which the object is approached.

Take the classic statement of Protagoras that man is the measure of all things. Here we see the race coming to consciousness of this fact of interest, value, concern; conscious reflectively of this phase; beginning to generalize

and abstract it. The reason they were a dissolving element is because they made this abstraction. Physical science has abstracted the object. Now the other side is abstracted and it is asked, What are the various attitudes which we take towards objects? The Sophists stood for at least the beginnings of the realization of two things; (1) that there is a certain attitude which determines the whole value of objects, of things, (2) that there are ways in which certain attitudes can be brought about. By producing a certain attitude you can bring about another.

As the scientific man was after ways of controlling the interpretation of an experience, so the psychologist is after the same thing; but they are looking at opposite poles. The physicist is after the content of experience as controlling the interpretation. The psychologist is after the attitude in experience as controlling the interpretation. The Sophist got at this in a sophistical way. But here are the beginnings of the science of psychology. This consisted in (1) determining and classifying all the different attitudes which affect the contents of experience. Sensation is one attitude which confers its value, or brings out its particular element of concern. So with the image, and the others, perception, imagination, conceptive thought. Psychology was thus at first descriptive, making or taking an inventory of these attitudes. (2) What is the relation of these various attitudes to one another? The descriptive passes over into an explanatory science, stating connections, interrelations,

laws, principles. It becomes genetic, interpretative, philosophical.

If we are after the question, How is change introduced into experience? of course the answer would be from the point of view of physical science that it comes about in this or that particular way. But to make this a full experience it must cease to be mere change and must become a change of interest, a change of meaning, a change of value. And thus psychology comes to be the question as to how the changes of meaning, of interest, of value, are introduced into experience.

After all, the physical statement is a statement of a possible experience rather than of an actual experience. Take the physical statement of color. The color red is so many vibrations per second. That is a statement of reality, of objectivity, and we are apt to infer that it is also a statement of actual experience. But it is only a universal statement of a <u>condition</u> of experience. Because it is universal we are apt to change it into an object of experience. But even if you put in the scientific statement of the nervous system, etc., the physical basis of the experience, still you would not have a complete statement of change in experience. The physicist cannot tell us the whole thing as to how change takes place in experience. No actual change takes place in experience without a change of valuation, meaning, significance. An actual experienced change would have to bring in this side of the attitude. The statement

from the standpoint of physical science must be supplemented by the psychological standpoint.

Subjective Idealism holds that the object must be an actual presented state of consciousness, that the object is only the presented object; esse est percipi.

Objective idealism (Dewey)[4] holds that, this remote side of experience which is the objective, the sensation stated in terms of its conditions is the objective; experience stated in terms of its conditions, as instrumental (as contrasted with the teleological statement in terms of value or worth) is the objective.

We must not confuse the stimulus to a sensation with the objectified interpretation of the sensation. The latter is the only real objective side of reality. If enough could be put into Mill's statement that the objective is the "permanent possibility of sensation" this would be the real objective. But the fact is that Mill is not on his own theory entitled to any real "permanence." Mill's "permanent possibility" is really, consistently in his own system, simply an aggregate of sensations. He must be inconsistent to get in either the permanence or a real possibility.

We really err when we say of physical science that it deals with the way change is brought into experience. For it does not actually take it into experience. There is no way from the strictly objective side, from the point of view of

4. Exactly why Dewey's name is inserted here is problematic. Perhaps it indicates that the following is Dewey's interpretation of objective idealism. The insertion is problematic because Dewey had by this time abandoned objective idealism.

physical science, to make it an actual experience. This can be got only on the psychical side, in the attitude. Psychology treats, then, not simply of change, but of experienced change, or as James says, change-in-experience.

We get into contradiction unless we recognize that physics and psychology represent different abstractions from the whole concrete experience of reality. Spencer shows this contradiction, since he says that matter and motion are themselves complexes in consciousness. So he decides that both the physical and the psychical sides are terms for an unknown reality. With Spencer there is an inexplicable alternation from the one to the other. We find matter and motion passing over into the terms of consciousness without any sufficient explanation.

Huxley is more consistent since he says that if we could get an absolutely complete physical statement of the universe, we still could state this just as well in the form of pure Berkeleyan Idealism, since after all, matter and motion are but modes of consciousness. For some unaccountable reason we have two statements which are absolutely convincing. Huxley leaves it as a bare brute matter of fact. He does not answer or even ask why this is so, or what these two aspects mean, or are aspects of.

Why should physical science go on with its investigation if the psychologist is going to come in and show that after all matter and motion, etc., are simply modes or states of consciousness? The subjective idealism has carried

to an extreme the results from the psychological side. The materialist has carried the results of physical science to the opposite extreme. Certainly we have a curious and interesting problem here which suggests the possibility that these are but different aspects, functions, or phases of experience which have been abstracted. Philosophy consists not in interpreting either in the abstraction from the other, but in showing their correlativity. When the physicist makes his statement, for example of the cut, is he dealing with the total experience, or is he dealing with an object of or in experience? What difference does it make? Has that experience of the cut been transformed over into an object? Can we identify experience with the object of experience? No! The scientific point of view is that of quantitative identity merely.

Spencer and Huxley state a certain necessity and a certain correlativity between the two statements, this correlativity consisting in that each can be stated in terms of the other. They hold that there is something beyond, however, of which these two parallel series are phenomenal manifestations. (Cf. Spencer, First Principles, p. 558-559.) He concludes that there is equal cogency on each side; no more materialistic than spiritualistic and no more spiritualistic than materialistic. Neither term is ultimate, each is but a sign of the ultimate unknown reality.

See Huxley's address on "The Physical Basis of Life" in his Lay Sermons (1868). There he holds that thought is just

as much the effect of molecular change as digestion. Yet he says that he is not a materialist (p. 145). It is of little moment which point of view you take, he says, though he prefers the materialistic since it has been fruitful. Here he really leaves little place or use for the idealistic point of view. Matter is a form of thought and thought is a property of matter. In his Science and Culture (1871, p.280) he speaks of sensations, pleasures, pains, making up knowledge. Some of these are of matter and motion. Others of these are of mind and thinking. Here he leaves almost no place for the materialistic point of view. (Cf. also his essay on "Metaphysics and Sensations" in his essay on Berkely, 1879, p. 314.)[5]

Here, not philosophy but science, pursuing its own methods as science, seems to have come to a split with itself. So far as it has taken the form of physical science we

5. Dewey's references to Huxley's work can be confusing. Although he correctly dates Huxley's article "On the Physical Basis of Life," as 1868, his reference to the other two works are not correct. The essay "Science and Culture" was first delivered by Huxley in 1880, and the book Science and Culture and Other Essays was published in 1882. Moreover, the correct title of the Berkeley essay is "Bishop Berkeley on the Metaphysics of Sensation." This essay originates from 1871. Page references are also obscure. Dewey's first page reference is to Huxley's Lay Sermons, Addresses, and Reviews, (New York: Appleton and Co., 1872). But the page references to the other works are problematic. The essay "Science and Culture" appears in Science and Culture and Other Essays, (London: MacMillian and Co., 1882), and in Science and Education, (New York: Appleton and Co., 1897). But neither square with Dewey's page references. The same is true of the essay "Bishop Berkeley on the Metaphysics of Sensation." This essay appears in Huxley's Critique and Addresses (London: MacMillian and Co., 1873) and in his Hume: With Helps to the Study of Berkeley (New York: Appleton and Co., 1896). Once again, Dewey's page references do not square with the publications.

get a statement in terms of matter and motion. So far as it has taken the form of psychological science we have a statement in terms of consciousness. Generalizing the former we get the statement that matter and motion are the only reality (materialism). Generalizing the latter we get the statement that states of consciousness are the only reality (subjective idealism). Spencer and Huxley see that each point of view has its own validity. But they do not state why we should have these two views, nor why they are both valid. What is it that the physical statement gives us? Where does it have an advantage? What is it that the psychological statement gives us? Where does it have the advantage? What is the advantage in each?

The subjective idealist says: The advantage in the psychological statement is greater immediacy. That is, the person getting at it from this side says that your atoms are all remote, inferential. No one ever experiences an atom or any other of the scientific abstractions. These are simply instruments to account for the world. The subjectivist says that what we experience directly is states of consciousness, and these atoms and molecules are but a hypothetical inferential construction of the basis of these immediate states of consciousness.

The materialist replies: The advantage of my point of view is that it at least explains, introduces system and order and definiteness, and accounts for phenomena. The utmost law and order that the subjectivist can have, he says, is

mere association of ideas, no science, no explanation, no definite or permanent relation to anything else. Your data are immediate, transitory, fleeting, he says. They come and go, and any relations which you set up are unstable. A scientific statement must be in terms of matter and motion.

But these are correlative, and the correlativity must be interpreted in a different way from Spencer and Huxley (and they are typical).[6] Their statements imply that everything can be stated in either terms, physical or psychical. But I hold that they are correlative because each states a certain partial phase or aspect of the total experience, and neither states anything that is stated by the other. Each represents an abstraction from the whole experience, a different point of view, and, of course, there is a division of labor and a different statement in the two cases.

Why should we state experience from these two points of view? What is the respective function which each subserves, and what are the respective aspects which each selects? And why did it make that selection? We must discriminate between the possibility of experience and the actuality of experience. The physical statement is the statement of the conditions of experience. The subjective psychical world is just as inferential as the objective or physical world. That is not the difference. It is not that the physical world is inferential in any sense that makes it less certain. It is no less certain because it is inferential. If he is a dead man,

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6. The phrase "Dewey's point of view" is inserted before this sentence.

there is no less certainty that he was once alive. The physical world is inferential in the sense of being not immediate but mediate. But that is not the physical world. The world of tables and chairs is not the physical world constructed by the physical scientist, a construction of matter and motion, of atoms and molecules. It does not follow that because the psychological statement is a statement of immediate experience in a sense that the physical statement is not, that this psychological statement is the whole statement, unless we are justified in identifying experience with immediate presentation. The fallacy of the subjective idealist point of view is in identifying the immediacy of experience with its whole extent, just as the fallacy of materialism is in taking these conditions of experience for the whole reality. There is a statement in Locke which illustrates the outcome of the psychological point of view in abstraction when taken ultimately. You see a bubble in the water and turn your head away. You may be morally certain that the bubble is still there, but you cannot be absolutely certain unless you are actually looking at it. Your sensation is your sole and only certainty as to the actual existence of anything; bubble, book, or man. Hume carries this to its logical conclusion and denies that we can have any absolute certainty at all, that the reality of the book <u>may</u> theoretically, for all we know, have returned into nothing when we were not looking at it. So much on the negative side.

Positively; I cut my finger. The psychologist takes certain sensations of pain, of contact, of temperature, etc., and he states that pain in those terms and in the terms of other sensations which are induced by them. He may speak of the movements produces by these sensations. His account would not be complete until he had made this statement of the movements in terms of these sensations. The physicist would insist that this is not a scientific account of the cut.He thinks that is only subjective in the bad sense, trivial, castles in the air. He would seek some statement of the movement of the knife in physical terms, of the degeneration and regeneration of the tissue, in chemico-physical terms, of changes in the circulation, etc. Now what relation do these two statements bear to each other? It is simply a question within science, between two sciences, each purely naturalistic and dealing with positive data. No question of any metaphysical entity enters here at all. Are the two statements dealing with the same reality, or if they are dealing with what is ultimately the same reality, are they dealing with approximately the same reality, or has this ultimate reality been subjected to a certain transformation into data respectively of physical or psychical science? Do they deal with reality in the same sense? Or has it already been manipulated, taken from a peculiar standpoint?

Does psychology ever deal with anything, is it ever interested in anything, but the fact of change? When psychology deals with the law of perception it is dealing with

something as static as anything physical is, it may be answered. But, I say, the law of perception which the psychologist makes a statement of is always not a static thing but a statement of the conditions under which one changes from a non-perceiving to a perceiving condition, and vice versa. Is attention necessary in perception? If so, is it some external condition that has to be met, or is it an intrinsic condition? Is it interested in these laws as distinctive facts or as changes or processes of change from one state to another?

To repeat the question: does it make any difference whether you take any matter as <u>in</u> experience or take it as an <u>object</u> of experience? Are the two statements equivalent, one which is made of anything <u>as it is experienced</u> and the other which makes it the <u>object of critical examination</u>? Does the scientific statement regarding, say, the cut from the knife, fall in the category of the thing made reflectively an object and not simply of the thing as it is experienced? Take the seeing of a postman riding a bicycle. Is the physical statement an equivalent of the experience itself, or does it imply, depend upon, a very distinct change in attitude which exercises such a transforming effect that it has to be taken into account? Is psychology ever interested in existence as existence, that is, as fixed or permanent, or simply in change, process of change? Is it a complete statement to say that psychology is after the laws of perception, or after the passing out of another into the

perceptual, of from the perceptual into another, say conceptual attitude?

Take it from the side of physical science. Does physical science try to think of the object as in time or time as in the object? Does not physical science attempt to get a timeless statement for change, that is, a statement not of the relations of objects in an order but an order in the objects? The aim is to get a statement of the order independent of time. Take the case of the falling body or of the redistribution of matter or energy. Is this redistribution in physical science looked upon as historical? What introduces the historical element? Take for example s=1/2gt or the distance is equal to half the velocity times the square of the time. Here you have got the time <u>in</u> the equation. Of course, you can state times also in terms of acceleration and distance, just as much as distance in terms of time and acceleration. It is this interconvertability which shows that physics is aiming to give us a statement, formula, equation, independent of time. (Cf. Scripture's <u>New Psychology</u>, which, by the way is not psychology at all but physics.) The Wundtian doctrine of elements in psychology is an attempt to assimilate the psychological to the physical statement. But this won't work. The points of view are different though the content is the same. And each point of view has meaning only <u>because</u> of this difference.

The physicist or chemist is always trying to reduce the number of elements, while the psychologist is all the time

multiplying his elements. The psychologist as a matter of fact never uses his elements. He uses his concept of elements but not his elements. They cut no figure at all. Titchener figures out 33,000 elements. What scientific value do they have in psychology in comparison with the significance of the atom in physics? It is not a psychological fact that we discriminate 33,000 qualities. These are really physical, as much as that there is a certain number of varieties of apples. Such a statement is a statement of something eternal, something there, as completed or finished up, a factor (though not, of course, a force) as is the distance or the acceleration. Suppose you are stirring with a stick in a barrel of water. Any historical statement must be made in terms of the experience of the man who stirs it. That is the only place where the change can take place, for, by hypothesis, the water is something fixed, or at least the matter there is indestructible, the energy is simply transferred, not altered in amount. (There is no qualitative difference in the water after stirring it.) The historical element always involves a heterogeneity of experience, a qualitative change in experience. The scientific statement tries to get rid of this heterogeneity and get a homogeneity, reduce all to a quantitative, common denominator, get rid of all the qualitative side. Of course, the physicist has to assume the very thing he is trying to get rid of. His getting rid of it <u>is</u> his assumption of it. It is only the getting rid of the other point of view that gives <u>his</u> statement

any point, any meaning. This is what is meant by saying that the time is in the object rather than the object in time, that all is reduced to this homogeneity.

Take it from the psychological side. We will discuss perception (sensation, association, apperception, fusion, or attention, are but our analysis of perception). Is this complete from the psychological point of view? Does the statement imply anything more than this mere analysis of the factors involved? Is it relevantly adequate or adequately relevant to make a functional psychological statement and yet begin with sensation as an abstraction just as much as an atom is? Does our modern psychology really take the genetic standpoint if it starts with sensation as an abstraction? There is confusion in modern psychology between an element and an antecedent. The sensation cannot be both a temporal antecedent and a timeless element. Is not the timeless element kind of sensation in psychology really an attempt to use the standpoint of physical science in psychical science? Does psychology, and can it, deal with perception at large, or does it necessarily deal with perception in some particular series? Perception can be scientifically (psychologically) treated only with reference to the particular position which it occupies in this series. Cf. Royce's criticism of Stout's Analytic Psychology that there cannot be any individual science of psychology, and Seth that there cannot be any science of the individual (he means the abstract particular).

The psychological presupposes the physical scientific statement and takes it up into itself (is a particular in a universal statement), while the philosophical or logical statement generalized again what has been thus universalo-particularized .

Psychology is a science of a series in time as physics is not. The element of change, instead of being something which it attempts to resolve or explain away, neglect, is the important and essential matter. Stream of consciousness, flux, chain, some such concept as that, is absolutely indispensable psychologically.

Take the case of association of ideas. I think of Caesar and then of the Rubicon. What takes place when we take the psychologist's point of view toward that? I might be in a day dream, reverie. That isn't psychology. But so soon as one raises the question as to just when and how one follows the other, or happens to be in this particular serial order, we get into the psychological standpoint. The psychologist's question is as to the sequence of experiences. How does this experience, idea, image, happen to follow upon a certain other experience? It is no answer to this question that as a fact Caesar did cross the Rubicon. This is no answer to the question why when we think of the one we think of the other. It is not the actual Caesar of the actual Rubicon as historical facts that we are interested in. It is in the serial order of the present particular experience or series of experiences. The psychologist is not dealing with the question

of the justification of this as an actual historical fact, but simply with the present series of experiences. Perhaps I may have once seen a picture of the scene (visual), or may have heard the story of it (auditory), etc.

Contiguity and similarity do not account for the association, but they simply reduce all the kinds of association to these heads. They are not the force or power which brings them together. But we associate what is contiguous or similar. How can we get any further? One way is in the terms of habit, tendency. Habit is a statement of influence, tendency, agency, tendency of discharges. What does this statement of association in terms of habit mean? It means that it makes absolutely no difference how discrete Caesar was from the actual Rubicon. The psychological Caesar (e.g., the word) is not an object in any way, but simply represents a tendency which calls up or evokes the other idea of the Rubicon. It is the flux, the fluidity, the streaming of Caesar that is of significance, at least so far as association of ideas is concerned. What the association of ideas is interested in is the way in which a certain image passes away in evoking another image in the transition. Psychology is interested in the way in which one experience calls up another experience that is of interest to us. It is very different from the question why Caesar crossed the Rubicon, or why the two words happen to be together on the page. This would be a question of the relation of two elements in an object. Here it is not the question of constituting an object, but of the

way in which one experience gives place to another experience. How does this take place? Our psychological abstractions come in in answering this question. Change is the very essence of the datum of psychology. The question is not how this psychosis (say, of a complex of muscular sensations, or visual or auditory sensations) come to stand for Caesar, but how does this imagery arise out of that other imagery? It might be nothing but the articulo-kinaesthetic sensations in the throat which came to stand for Caesar from having pronounced the word. Taking any introspectively fundamental psychosis (complexes of sensations or imagery) how did and does this complex come out of that other complex and pass into that other complex? This is the problem of psychology.

Psychology as distinct from philosophy is not interested in the function, but only in the genesis or growth, apart from how it operates with reference to an end. In psychology we are dealing with flux throughout, but with heterogeneous not with homogeneous flux. Psychology describes the superinduction of one quality of experience upon another experience, the Rubicon experience upon the Caesar experience.

The two standpoints of psychology and physical science do not overlap then in the sense in which Huxley and Spencer or even in the sense that Wundt would hold. The physical standpoint is to get a statement in terms of an object, something which is fixed, permanent, and which can thus be used for the control of experience. Psychologically we are

interested simply in the question of how experience changes. But this difference in the two points of view makes materialism and subjective idealism equally impossible. Psychologism (subjective idealism) says that your state of consciousness is Caesar. This is to say that a change in your experience of an object is the object. It hypostatizes your statement of the way in which you experience an object.

The above as applied to association is very clear, since change is very obvious in association of ideas. But the same is true even of perception, e.g., the discrimination of blue. If the interest is in the blue as blue then you certainly have got an object, something static. But if the psychologist is concerned with discrimination and the "of blue" simply comes in to indicate some particular kind or mode of discrimination, then what the psychologist is interested in here is just as much change as in the case of association. What is discrimination but effecting change, introducing change? The difficulty is that the psychologist thinks that some statement about the blue is the important thing, not recognizing that this interest as a psychologist is in this discrimination process and in it alone. The psychologist talks about quality, intensity, duration, tone, as attributes of sensation. Take the quality. The fact that it is blue is, of course, of interest, but the psychologist is interested in the blueness only when he can put blue, regard blue, as a particular form of sensation in general. It is only thus that the quality blue has any psychological

significance. The mere classification of colors is of interest to the painter, to the physicist, as data, but a mere inventory of colors is of no significance to the psychologist. But when you point out the different shades of color then you get into the psychological statement, since you bring in the element of discrimination. The fact that there are M colors is of no importance, but the fact that so many are discriminable is of significance. Apparently we have a continuum of color sensation, and then we have a group of auditory sensations homogeneous in a way among themselves. But they are qualitatively very different. Now if we accept evolution we are bound to regard these as differentiations of some common process. Sound would be comparable to a different genus from color, while the different colors red would be varieties within the species red within the latter genus. Mere classification apart from this genetic basis means nothing. But blue as meaning a certain differentiation and adaptation of the whole life process, would be very significant and important for psychology. But the quality blue has not significance for psychology excepting as blue is treated in this genetic way, as a peculiar differentiation reached in the whole evolutionary or developmental process. Blue as static has no interest to psychology. Only as dynamic in this larger process of change (evolution) is it of interest to psychology.

Take the question of the thresholds, the liminal difference of sensation. Here the psychologist often throws away what is really of value from his point of view. The question of change, the amount of perceivable change, everything that comes under the psycho-physical law, is obviously properly psychological. Weber's law also. How much, what is the minimum perceivable light or sound? It may be said that that is an absolute question, and not a question of change. But what is the psychologist dealing with? Is he really dealing with an absolutely blank experience into which he has introduced a new experience ex abrupto, like the original creation of the world out of nothing, so far as the interpretation of this quantity is concerned? The psychologist is not telling you that, but how much change there must be in order to pass from one experience to another. It is a question of the transfer of attention. How much change does it take to transfer the attention from this engrossing experience to that other? The mind is not an empty blank, but always has a background, an already complex experience. There is always a certain direction of activity, a momentum, already there, and must be taken into account. How much stimulus does it take to deflect, to change the direction of this activity? How much stimulus of light will it take to substitute a visual sensation for a sensation of sound? Whenever the psychologist tries to get the most favorable conditions in the laboratory in his experiments, it simply means that he tries to prejudice the answer to the question

as little as possible. The psychologist of today is apt to throw away this historical side and treat the datum of his science as a fixed object.

We could go on in the same way with intensity, duration, etc. If duration means transfer, length of time which it takes to effect complete transfer, then all these time measurements are very relevant psychologically. Not that the thing per se has a certain duration, but the amount of time that the change occupies would measure the amount of obstruction or ease of adjustment -- measures the realization or effectuation of the change.

Physical Science--homogeneity--timeless--mechanical
Psychological Science--change--historical--teleological
Philosophy--functional--teleological

The abstraction of psychological science is that which takes the realities of experience as simply events or change in experience, while the abstraction of physical science is to get a statement of the object which controls the change. This psychological point of view as distinct from the standpoint of philosophy, excludes the functional point of view, and limits itself to the standpoint of genesis.

MUNSTERBERG'S DOCTRINE OF PHYSICS AND PSYCHOLOGY:
cf. Psychology and Life, [Boston: Houghton Mifflin Co., 1899], Chapter II, pp. 46,47,50, et seq.

Munsterberg says that the physical datum is something common to all persons, but the psychological datum can be for one only. But, as Royce asks in the criticism of Stout's Analytic Psychology (Philos. Rev.), how can you even describe an experience which is for but one person?[7] Munsterberg says this description cannot take place only in terms of the psychical, but only in connection with a physical object. He says the "ideas mean things." Here he finds the connection between the psychical and the physical (p.50). The very essence of an idea is to refer to a thing and the elements or factors of the idea (sensations, perceptions, etc.) refer to the qualities or attributes of the thing. And he would say that all the other psychical states, feeling, will, etc., are made up of sensations, that is, psychologically considered (p. 52-53). Munsterberg is very careful to say that psychology gives you only an abstract construction of the object, and not a concrete object. His doctrine is essentially this: (1) All variations of mental life are variations of the content of consciousness (p. 97-98); (2) that content is made up of sensations (p.98). Munsterberg makes the psychical fact the content of consciousness. He makes the data of psychology like the data of physical science in that they are objects, the only difference being

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7. Dewey's reference is mistaken. Royce never submitted a criticism of Stout's Analytic Psychology to the Philosophical Review. J.R. Angell wrote the review for the Philosophical Review in Vol. 6 (1897), 532-39. Nor did Royce criticize Stout's work in any of the articles he wrote for the Review. However, Royce did write a review of Stout's book in Mind, Vol. 6 (1897), 379-99.

that the data of physical science are common to all, and the data of psychology are individual.

But I hold (contra Munsterberg) that the data of psychology are events becoming, or coming forth. This is not to say that we cannot or do not view the data of experience as content, but that when we do view the data as content we are not viewing the data psychologically, but from the standpoint of physical science. It is only as we view the data of experience as changes, as process of change, as events, as growth, as well as individual, that we are taking the psychological point of view. Of course, if he views his data as content, Munsterberg must speak of a combination of elements (sensations, etc.). The error is further back--in his conception of the data of psychology.

Says Munsterberg, "The idea means the thing and any sensation in the idea means a feature of the thing." That is, as the idea is to the sensation, so is the whole of the object to the part or feature of the object--rule of three! He has defined idea and sensation wholly in terms of function, though later he refuses admission of functional principles in psychology. "Meaning" is nothing but the function. Hence he is compelled (p. 98) to define every psychical state as made up of possible elements of perceptive ideas. Munsterberg really represents the most thoroughgoing functional and intellectualistic standpoint. But he is not consistent.

Take the sensation blue. The quality blue is not psychological at all, so long as the emphasis is on the blue as blue. Munsterberg says on the other hand that this is just what the psychical is. I say that this quality as such is not psychical. The psychologist as a psychologist has to start from these qualities. He is interested as a psychologist, however, in getting away from this static starting point and looking on the side of the change from one experience to another experience of blue, in the discrimination of blues (the intellectual side), in the different reactions to blue (as compared with red, say; this is the volitional side). This is the real interest of the psychologist. Physiology in so far as it helps us to see blue as a process is really psychology. Take the Helmholtz-Young theory and the Hering theory. They try to take colors <u>as processes</u> (differences in metabolism, of different photochemical processes). This is treating the sensation as an event, change, process, growth. I say that in so far as we have simply content in terms of sensations, ideas, etc., we have made no progress at all psychologically. This marks simply the limits of the psychological inquiry which is into the data of experience as event, flux, change, process. Of course, psychology, like physical science, has also the side of interpretation (functional interpretation) as well as the side of mere description (historical or genetic in the case of psychology, and timeless in the case of physical science). As

soon and so far as the interpretative and explanatory side comes in we get the philosophical statement.

The terms "sensation," "psychosis," "kinaesthesis" would do for names for the psychological data excluding the irrelevant content side. That is, these terms would describe the data of psychology on its merely descriptive side, as a science in distinction from the explanatory or interpretative (philosophical) side. Take the joint-sensations or articular sensations. If you say that as content they are constituents of the idea in space, if you say that a certain sensation of constriction in the chest is a factor or element in the fear, the average man takes such a statement as a dash of cold water in the face, and rejoins in surprised opposition, as James' critics have replied to his theory of emotion. Every sensation <u>has</u> a content, but we could not say that for the psychologist the sensation <u>is</u> the content. Content is simply the particular quality of the change, the kind of change that is taking place. This puts no limit on empirical, on physiological, on physiological psychology (contra Munsterberg, who denies that physiological psychology can help us or has any value, for example, to the teacher). Physiology in so far as it states any experience as process, as change, <u>is</u> psychology. Of course, the constriction in the chest is a content, but it is not <u>as</u> content that it concerns you as a psychologist. Of course, it is an experience or you could not speak of the experience as changing. We are not denying that there is a concomitance,

but that does not mean an element in the sense of a constituent part (as the whole Wundtian school holds), but as a functional factor in the whole sensation which functionally interpreted mediates for us the perception of distance. But this is a very different thing from saying that the articular sensation is an element in the idea of distance.

Here is the perception of distance. I have the idea that the chair is five feet away. The psychologist does not analyze that as a complete fact, but asks how did I come to that idea? How was that idea arrived at? How did I come to think that the chair was five feet away? One factor in his answer is that the joint sensations have a good deal to do with the way in which a man arrives at the idea of distance. The psychological question is <u>how</u> I got it, not directly <u>what</u> is it. But we cannot say that the joint sensation is a part of the idea, but a statement of the means by which you came to that idea.

Going over to the interpretative side of psychology, it might seem curious on the face of it, this relation between the joint sensations and the distance. Why should the sensations in a joint have anything to do with the perception of distance? The answer to this question involves the beginning of interpretation of the mere brute description. Joints are part of our organs of motion, of the organs by which change in the direction or character of movement is initiated. If you change your position or motion, direction, etc., there is a change which is reported in terms of joint sensations.

A statement then of the relation of the perception of distance to the organs of movement and locomotion by which change is effected, brings in the interpretative side of psychology.

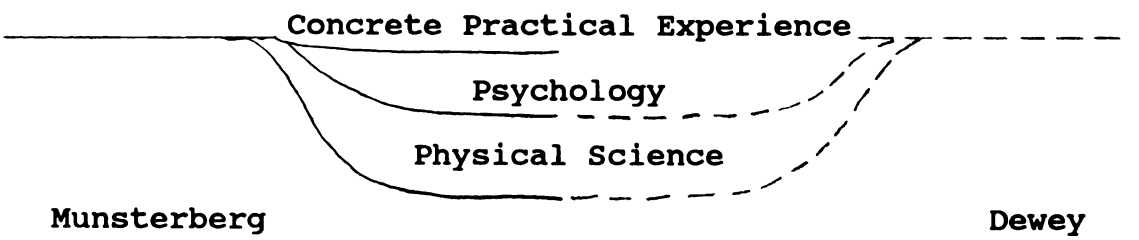
Of course, the psychologist must take into account considerations of content, otherwise he could not differentiate one psychological state from another. But the difference is that he is interested in the content of an event, in the content as modifying the event, but not in the content as content, as itself object.

The psychologist's fallacy comes in here. We assume that because the psychologist must ascertain the event in terms of its content, its make up, its structure, that therefore there is something there which to the person that experiences it is a psychical content just as certain other things are physical contents. Munsterberg thinks that the psychologist has to assume that he simply discovers the psychical elements and does not put them there. But I take the other point of view. Munsterberg makes the psychological data such contents, or parts of contents, to the experiencer. This is just what they are not for the psychologist.

The physicist and psychologist both start from ordinary experience, the practical experience, which is a matter of acts and interrelation of acts and of states, and they start therefrom because they have found that there are generic sources of error which can be specifically treated, or if we put it on the positive side (as contrasted with the negative

or pathological side), that there are certain standpoints or methods taken which if secured, facilitate and enlarge and deepen the meaning of this practical experience. These standpoints then are each instrumental.

Each grows out of and returns into this immediate experiencing. The differentiation of the two depends on discovering what particular form of instrumentality each assumes with reference to the reaching of the end. We might say, in passing, that the fundamental fallacy of Munsterberg's whole book is that while he recognizes that the physical and psychological standpoints are abstractions for the later reconstruction of the concrete experience, after he has got them, both apparently go their own ways. He never gets them together again. A large part of his polemic depends upon the assumption that physics and psychology go on each in its abstraction to the bitter end, so that these two sciences never can be of any use to the concrete experience (cf. his chapter on "Education and Psychology" and the chapter on "Psychology and History").



In the adjustment of experiences to each other it is necessary to have a method which will identify and connect that which is taken as a basis, that which is assumed as a basis and background of any further experience, of any further action, or any further passion or state of practical experience. The attitude of physical science is the method which endeavors to give us a statement of that upon the basis of which further experience proceeds. The physical object, the physical world, is the world of presuppositions, the world which must be taken into account if it is to proceed with economy, certainty, effectiveness, value, meaning. This gives us a true footing, shows us what we can stand on before we can do, suffer, receive, act any more in a definite determinate way. This is the basis, pou sto, the conditions which have to be taken into account with reference to the direction, the control, of any further experience.

To illustrate this by a point which gives us difficulty continually, take the sensation. The physiologist attempts to assimilate this to some form of metabolism, some change or transformation of energy. If you are taking the sensation as an accomplished fact, as having happened, and because it is a part of the existent world which has to be taken into account in the control of future action, then this treatment of sensation is not only valid, but necessary. Take volition. Does a man not act from free will? Does not this make

a break in the nexus of physical sequence? If you are taking the act of will as something which has occurred, by reason of the fact the you have taken it in that way, you have thrown it over into the objective world as a part of the physical, of the causal mechanism. This is not only legitimate, but necessary and inevitable. If you put the question in scientific form at all, then you get this result. If you cannot treat volition in this way you are simply saying that there is an absolute surd in your statement of the universe. If the free will is treated as another and different force which you cannot compute, then the more freedom you have the less necessity, and vice versa. But this is not the true statement of the case. From the point of view of physical science there is nothing which cannot be stated in causal terms, in terms of necessity, i.e., from the point of view of the event as having happened.

This physical statement gives definiteness to the formation of ends, as against vagueness. The less knowledge we have of the conditions of actions, the more random, the more unspecified, the more at large the end will be. We then act on instinctive impulses or on blind faith. Mr. Mead, in the Journal of Sociology, November 1899, "Place of the Hypothesis in Social Reform" and in the review of the book by Le Bon in the same issue, touches on this subject.[8] The less specific knowledge of social conditions the sociologists

8. The correct title of the article by Mead is "The Working Hypothesis in Social Reform," in the American Journal of Sociology, Vol. 6 (1899), 367-71. Included in this volume is Mead's review of Le Bon's Psychology of Socialism, 404-12.

have, the more general the schemes of the Programmists are (as over against the Opportunists). The more scientific knowledge you have the less you deal with general programs, and the more you deal with the formulation of specific things to be done in order to reach the end in view. This illustrates the point of this definiteness as over against vagueness.

As you state the end definitely to yourself this basis becomes the means upon which you fall back, and so gives assurance, certainty, to action. A definite end implies that the conditions become means for the realization of that end. The less science there is the vaguer the ends proposed and the less certainty and assurance in realizing those ends and aims.

It may be said in objection, that in savage life we have the least science yet the greatest definiteness in social customs, etc. But so far as the activities are controlled by customs, etc., there is no consciously realized end, there are not what we call conscious individualities; the individual and society are merged. In his conscious ends we do see this wildness and irregularity. Cf. the savage mythology and religion. There isn't anything which may not be an end, which may not be an idol, which may not serve as an end for action.

Turning to the instrumentality which psychology supplies, there is something which gives the point from which one is interested. Physical science arose in certain

problems, difficulties. There was something which made those experiences present themselves as difficulties. That of course was the aim, the end. If there were no end or aim, anything would do just as well as anything else, any combination would do as well as any other. If a man were shaking dice just for the sake of shaking it with no end in a game, it would make no difference which side came up. The difficulty comes in only when there is some end or aim. There is something, then, on the side of the person which is regarded as the basis of value, as the basis of action. The material or content basis is on the side of the object. The basis of value, the point of view from which the object is valued or estimated, is found on the side of the subject, in some attitude of his, in some end of his. We have got to know what the various bases are from which objects are evaluated. It is not that the subject gives value any more than the object. But the subject is the basis for evaluating those values. The subject gives the measure of those values. That is, we cannot take values just as we find them any more than we can go ahead and act apart from the objective conditions.

The first thing that the psychologist does is to expose to us the mechanism of evaluation. Psychology does not give us the structure of values, but the machinery that is used in evaluation, the mechanism that is employed in getting value on one thing and not on another.

Psychology does not tell us what the value of a syllogism is, or what the value of a right act is, or the value of a beautiful picture, but it tells us what are the means employed in arriving at the consciousness and statement of such values.

But it might be asked, "Well, what's the use of all that?" It enables us to control the kind of end or aim that we set up, to control our action so far as our action has to do with the formation of ends. We give definiteness, precise content, to our ends and aims through our knowledge of the objective side, but no amount of such knowledge will decide for us that we will have an end or the worth that we will attach to that end. The value does not come from that knowledge, but the power of control in the statement of a value must come from this knowledge of the machinery of valuation. It is the question on the physical side how the end will be objectively reached, what means will be used to reach the end. But this implies that the end has already been arrived at as an end, that some value is already proposed as worth realizing. It is psychology which puts us in control of the way in which we formulate various ends as ends. The psychologist makes a statement of the processes which are followed in the determination of values. The determination of values is the function of philosophy (ethics, aesthetics, logic, social philosophy).

Truthfulness as a value is not the psychological statement. Truthfulness as an end implies persons who are to be

moved by this end. The knowledge of the mechanism of evaluation would assist one in making truthfulness a working value in the life of any particular agent. How truthfulness gives rise to a system of motives, for example, would be the psychological statement. This will facilitate the possibility of the appreciation of value. The statement of how to make a value appeal to a person is the psychological process. The statement of the evolution of the values is a social process and is the philosophic statement (social philosophy). Psychology makes a statement of motivation and initiation of change in experience.

My basis of interest in any particular object, and hence the source or basis of all difficulties which arise, is my end or aim. This end need not be consciously stated, but it is from the standpoint of that end or aim that one has any concern with anything which comes into the purview of conscious life at all. We have different interests as we have different ends or aims.

Physics abstracts from any special end or aim. It attempts to eliminate the element of interpretation where there is room for error, as far as possible, to give us this homogeneous common statement involving the minimum of interpretation. In practical life when we become conscious of an object, say a flower, we do not do this only, but we interpret it, we apperceive it. But the botanist comes along and says, I will tell you what the flower is in itself irrespective of the artist's, horticulturist's, farmer's interest or

end. But he has not got away from all end, but only from any particular end. He does away with all specific end or aim. He has generalized the idea of end or aim, doing away with the differences of end and aim. He has stated the flower (the universe) at the lowest level of its relationship to ends and aims. He has reduced all these ends to a common denominator.

Here we have the paradox of theory and practice. Theory marks a growing abstraction from distinctions, differentiations of practice. But in its abstraction from the details of practice it becomes all the more practical, is now applicable to any and every end or aim. The theoretical statement is the statement of the object is so general a way that it will serve for any end or aim. Though physical science cuts all particular cords of connection of the object with the subject but does not get away from the line of connection with the subject, the scientific statement is always in terms of generalized conditions of action. The subject is the basis for the interpretation, apprehension. This subject becomes more remote and general in character as we progress farther and farther into the scientific statement.

The psychological statement states the experience in terms of those factors, elements, processes, which are immediately concerned with the introduction of a certain content or value into experience and with its passage again out of experience. Let us go back to the illustration of the joint and tendon sensations. The false interpretation consists in

saying that those joint sensations when associated with certain other sensory images (visual, tactual, etc.) constitute space as a mental content. Another school says no. You must have some synthetic function, and forthwith brings in apperception. (See notes on the Association-Apperception controversy.)[9] But both are on the wrong track. Psychology has nothing to say as to the content or constitutive elements of space. It simply points out the factor of experience which has to do with our experiencing any space content. It simply says that if you have those joint sensations, you are on the way to a space experience. These joint sensations are concerned with our getting the space experience, and it is into this process that psychology inquires. It is the joint activity upon which the perception of space depends. But the sensation enables us to pick out, to isolate those conditions. But the sensations as sensations are not the conditions either of the content of space or of the experience of space, but only a statement of how we get the experience. It is not that sensations as sensations condition the experience of space as content, but that there are certain conditions which are immediately involved in the having of the space experience, and the psychology in giving this construction of sensation locates, isolates, and identifies these conditions which are immediately in thought as the conditions of having this experience.

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9. This apparent handout is not contained in the manuscript.

It is not correct to say that the fear is the gastric sensations, chest constrictions, etc. These are biological facts, certain responses to certain stimuli, favorable to the preservation of life, social facts of the effect that one person has upon another, an ethical fact. The common man objects to being told that this sensation of fear or anger is these things. Those gastric sensations enable us to isolate and select certain conditions which have to be fulfilled in order to have the sensation of fear or anger, that he cannot get the sense of being angry unless he has a certain organic disturbance which reflects itself, reports itself in these sensations. These are the psychological, the immediate or near conditions. There are also of course the physical conditions, the more remote conditions.

If the psychological statement simply reduplicates the structure, the elements, of an objective content, simply transfers over the physical, ethical or social content into a psychological form, then we have simply two rival statements like those of Huxley and Spencer and Munsterberg. Of course, the physical, social, ethical conditions will be given the preference, and then the psychological statement will be looked upon as mere speculation, phantom, ghostlike forms. This psychical shadow or ghost is then treated as of no practical value, of no value for practical life, hence Munsterberg's conclusion that psychology has no value for life, for education, history, etc. If the psychological datum is a complex which simply reduplicates the physical,

what is the use of such a second statement? But if it is taken as a statement of some one factor in that total experience, upon which the manifestation as experience depends, and these sensations are simply media for identifying that pivot, then the psychical conditions give us a statement for the immediate means of control. The immediate factor in a space sensation is the tactile sensation, say, and the visual and joint sensation, etc., are the more remote sensations.

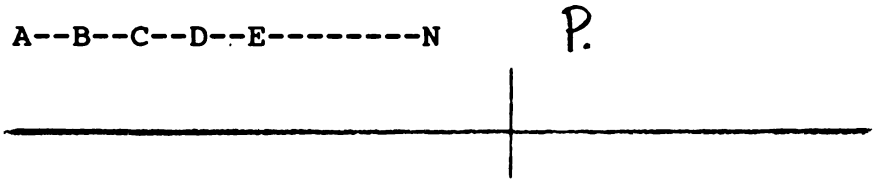
Of course, there is a distinction here, but it is not the one which some psychologists have made. The real distinction is the distinction of persons and things. Common life, practical life, ethical life makes this distinction, and this distinction is an exceedingly important one. The personal may be taken as marking one grade or order of existence, and the thing as marking another. The psychologist has made the mistake of identifying the psychical with the personal and the physical with the thing. But the personal includes, embraces, both psychical and physical. The psychical and physical are statements in terms of means. The personal is a statement in terms also of ends. It is possible to control irritation, anger, etc., by inhibiting certain of the minor partial discharges, which are the immediate conditions for experiencing the state of anger. Knowledge of psychology in so far as it enables us better to get such control is certainly (contra Munsterberg) getting back with a real value to life. Psychology gives a statement of <u>the</u>

pivots upon which experience turns. The physical statement is of the indirect or remote means of control. The psychological statement is of the direct or immediate means of control.

Because the physical is mediate, it is in one sense remote. It states the factors upon which the execution, the completion, the success of the activity depends. For example, you judge a man by his motive, not by his success, because the motive is within his control, the issue is not within his control. The physician may start out to perform an operation with good motives, but if he is struck dead or with paralysis, the issue is not psychical. The motive is psychical only because it alone is under his control. Initiation is psychical because it is immediate. The outcome of other conditions (termination) taken as initiation of a new process of experience (motivation) is psychological. Will must be treated as part of the physical world as the result of something else, and then it is necessary. Will can also be treated as initiation, as part of the psychical world and then it is free. Something new is always arising in experience. A statement from this side and of our control of this change (initiation) is the psychological side and the side from which will is free. On the other hand experience has a permanence, an identical element running through it, and from this side of will or volition it is seen to be determined. There is a sense in which if there were not freedom there would be no meaning in the necessity, in the causal

statement. It is some end or aim which makes the causal statement necessary and significant. It is in order to direct our initiation that we make the statement in terms of necessity. The physical statement of necessity postulated freedom. In the physical causal statement we are moving toward means. In initiation we are moving toward ends.

You have to conceive of experience as a movement forward.



Now if you predict, it can be on the basis of A-B-C---N. The distinction of past and future is made only because there is always something novel or new. The unexpected is always happening, otherwise the future would be in no way different from the past, and we would not draw the distinction. Hence the possibility of initiation is there so long as there is this novel element. Daydreams and a series of emotional states are no more psychical than breaking stone or looking through a microscope. Neither are psychical except as they become or are viewed as the immediate conditions of further experience. They are personal, social, ethical, religious meditations; but they are not necessarily psychical except as they are or become such immediate conditions for further experience.

Coming back to the question-- the confusion between sensation considered as quality or immediate value referred to an object, and sensation as physical science would deal with it The point is that a distinction which in practical experience is one of the relation of experiences to each other or of two phases of an experience to each other, both being of the same order, comes from the development of physical and psychical science to be conceived as a relationship between two different orders of existence. Categories which are useful in practical experience are carried over into a region where they do not belong and confusion results. As an experience in practical life "table" and "smooth" are on the same level, only "table" is in the background, remote, while the smoothness is in the foreground, immediate. The smoothness as immediate indicates the adjectival side, the "handle" side, by which to get hold of the substantial side. It determines, gives the key, clue, signal, stimulus, initiative to the next activity with regard to the table, to the next response. The smoothness is the focus of attention, psychologically stated. Using the categories of instrumentality or agency as used in practical life, the table is the cause of our experience of smoothness. The smoothness is referred to, belongs to the table. These categories of causation and of quantitative reference (i.e., reference of the quality to the thing) are reconcilable from the standpoint of practical life, but not if carried over and hypostatized as objective.

The table gives me Locke's primary qualities	the smoothness Locke's secondary qualities
The table is smoothness Theory of physical or meta-physical objective reality: materialism	the smoothness Psychical, mere sensational quality.

On the objective side, or in the objective sense, these two propositions are incompatible, that is, the table cannot have smoothness as a mere part and then be asserted as only and wholly smoothness. The latter is an identification. The first makes a distinction. But the practical man uses the term "gives" in a purely teleological or instrumental sense, not in an objective sense. This means that he can use the experience of the table to get the experience of smoothness. When I say that the table is smooth I have the sequence of two foci of attention. There is a series of two experiences which are related in this way. A man wants to make a memorandum, and looks at the table (visual), and says, "Yes, that's smooth enough to write on." Then perhaps he feels it (tactual). "Yes, that will do for my purposes." Here the judgment is more or less hypothetical. He tries it. "Yes, that certainly will do. This table <u>is</u> smooth enough to write on." This <u>is</u> the realization of my idea of writing. That is, this table is a means for that end (smoothness as a basis for writing). The one proposition is simply a statement of the judgment in an earlier stage of its growth.

1. We first identify the object, of the substantial aspect of the object in the practical sense (which is the basis of further experience) with the object in a physical or objective sense.

2. We confuse the adjectival with the psychical in an existential sense, and then

3. We suppose that there is a causal relation between them.

Here we are really dealing with two experiences qualitatively distinct, this one being the means and that the end. But in physical science we leave this point of view for another. When we put that in objective terms we are dealing with connected elements of content within one and the same object, we are not dealing with the sequence, seriality, change of one as the way of inducing the other. We are simply trying to state an object as an aggregate of connected parts. We are trying to connect <u>in</u> the object the quality smoothness with other qualities or traits which make up the object.

That lantern looks green (makes upon me the impression of green). The engineer wants to know how to react, whether to pull the lever down and stop, or go on. Is it really green, or is he color-blind, or has he been looking at a red light and is this an after-image? We want a criterion for greenness in an objective sense, which will state greenness in connection and in comparison with other elements in the

object, state it in terms of vibrations, etc. When we are working in physical science we are not dealing with it as a sensation in the psychological sense or as a total experience in this practical sense. We are rather engaged in the analysis of the object as a content and in its elements or traits or qualities. Suppose physical science shows the lantern to be red (the number of vibrations in the object, which <u>are</u> the object in the sense of physical science, are so and so). Now how are we to account for the fact that it looks green? If we stop with the mere physiology of color-blindness we are still dealing with the object, a larger object of which the lantern is now only one constituent and the nervous system (optical apparatus, etc.) the other. The object now, instead of being merely lantern, is lantern-in-relation-to-nervous-system. But we still have here an object the analysis of the factors of which is the role of physico-chemical science. Color from this standpoint <u>is</u> the relation between vibrations and the nervous system. In a similar way, water <u>is</u> the reaction or combination of hydrogen and oxygen. Spencer would say that we cannot know color or water as it is in itself, but only as they are in relation to the nervous system. But this relation <u>is</u> their existence, their reality. We know them as experienced objects, as contents of experience, and this is the only reality which there is or can be. Vibrations, atoms, etc., are not something which are unknown or unknowable. They are certainly not perceived as horses and dogs are perceived, but this does not make them

less real. They have the existence which they have as ideal constructions made by the physicist and neurologist. This interaction worked out by the neurologist does not constitute color as sensation, but color as an object, just as much as water as an object is constituted by H^2O.

What is the cause of the whiteness of the snow? There are three distinct meanings which this question may have. (1) In the practical sense the snow is the cause of the experience of the whiteness. We get the impression of white from the snow. The causation here is instrumental, the causation of means and ends. We cannot take white as cause to get snow, for you might just as well get whitewashed wall or chalk instead. Here subject and object are implicit only. (2) The physical scientist explains it as the reflection to the eye of all the different rates of vibration. We are dealing here with constituent elements of the object, and so also is the physiologist who includes the nervous system with the vibrations as the object. We have the statement here in terms of the object. (3) How is the real distinction of subject and object to be interpreted with reference to this idea of sensation, or vice versa? Here we get the psychical or psychological statement, in terms of the subject. This is an interpretation, reflection, on the practical statement. The real distinction between subject and object is this teleological distinction made explicit. What is the stimulus to my experiencing white, to my sensation of white?

To state the thing over again in a slightly different form, and from a somewhat different point of view, (1) What are the means by which I may get the experience of white? Well, snow is such a means. Chalk, paper, etc., are others. (2) What is the cause, in the scientific sense, of the white? That means to construct a total object in which white appears in homogeneous relations to other elements of the object. (3) What is the stimulus to the experience of white, to the discrimination of white, to its standing out as something distinct over against the snow? What makes white a distinct value in experience, marked off against other experiences, such as chalk, paper, etc.? There is an implicit contrast to other kinds of experience. What makes this handle ready to hand and not some other? The stimulus to white as a distinct value in experience is friction in the various constitutive factors of activity with the need of resolving that friction in a unified activity (or experience).

The make-up of direct experience is a series of acts or states qualitatively distinct from each other and which as originally experienced present within themselves no conscious distinction between subject and object. Sensation represents a factor which is distinguished within or out of such integral experience when uncertainty appears or arises. Because of the appearance of this uncertainty, of the problem, something which is in doubt, the experience is broken up so that a duality, a distinction appears within it, a duality of function which serves to dichotomize the material

or matter which is presented as well. Sensation represents the point of immediate stress or conflict and of tendency of initiation in the formation of the new experience. The sensation locates both the point of greatest need, of greatest urgency (stress in that sense) and also the point of greatest difficulty.

Psychologically there is the most marked difference between the experience of light which we are now having in this room and a sensation of light, an experience of light in the sense in which it would be marked off as a discriminated sensation. It is a fallacy to neglect to consider the particular conditions under which the particular experience arises. Light as a content or value of present experience may be taken as the sensation, but this analysis is not all there is to light. As we are using the experience of light, realizing its value, aesthetically, or practically (by which we see to write, say), light is not a sensation, it is a sensory quality, but it is not a sensation. If it began to get dark and one found difficulty or was not able to go on at all with his writing or reading, then light might become a sensory experience, the salient feature in the experience. We would begin, so to speak, to hunt around for light. When the light is set in tension against the rest of experience it becomes sensation. If it became the total experience it would cease to be sensation. There would be a return to the practical activity experience again.

The point of greatest immediate concern in the experience is then the obscurity or absence of light. Light would not necessarily become a distinct sensation in that case, but it certainly would have a tendency to become the definite object of attention, which has to be discriminated in itself. Or, we can imagine a flash of lightning which interrupts our previous experience. It would at once be the point of stress, that which we have got to react to and yet which is difficult to react to in any serviceable way.

The sensation being this point which emerges out of experience as the point of greatest immediate concern and which makes effective response difficult, goes through a series of degrees which enables us to explain the relation of sensation to perception. The more undefined, vague, this point of stress in the experience, and therefore the more indefinite and uncertain our response to it, the more it appears simply as disturbance, friction, and the more therefore it approximates the mere feeling mode of consciousness, the feeling <u>that</u> there is difficulty, but no distinct knowledge of just in <u>what</u> that difficulty consists.

Some one element of this reaction to the shock is moderately successful, is the very value of this irradiating reaction. Some feature may succeed in locating the difficulty. As we succeed in modifying the general vague, diffuse, reaction into some definite response, we move on towards perception, we begin to interpret the shock or sensation. We define it, locate it, give it a particular quality

or make-up. From this point of view the excitation becomes a stimulus, clue. This transformation of the excitation from the simple shock over into a definite basis for response, the consciousness of a certain kind or quality of presentation, this is the process of objectification. This basis worked out for some more definite response is the objective in experience.

Sensation is here used as synonymous with simply change in experience, e.g., when we say, "He made a great sensation." There is nothing definite nor determinate here, shock simply. But when this takes the form of some definite resistance or obstacle we get perception. This tension between the excitation and the reaction in a series of experiences reflects itself as sensation (e.g., the kinaesthetic sensations in attempting to write with the left hand). If he gave up writing because he was tired then the sensations become transformed into perception and into a larger experience.

Sensation and perception are the limits within which the mental movement goes on. Sensation stands for it as vague, and perception in its relative definiteness and completion. All mental movement is movement of sense-perception. The moment a man recognizes that he <u>feels</u> uneasy, of course, he begins to objectify, but with perception there comes less of the feeling element and more of the objectification. This is simply a relative distinction between the amount of feeling and the amount of perception which is there. The only distinction between sensation and perception

is the degree of definiteness. The general feeling of uneasiness is the sensation. Later it may be distinctly perceived to be due to a draft coming from the open window. Then it is a sense perception. It is thoroughly objectified.

Recurring to Lotze, we do not have a transfer from a completely and solely subjective region over into the objective, but we start with the complete pre-reflective experience in which this distinction has not as yet come out consciously. The objective appears as an element in the transition from this integral experience over into another integral experience. There is all the difference in the world between saying that we begin with a purely subjective experience and saying that we being with a direct practical experience which is as much objective as subjective, and that the subjective emerges out of that at the point of stress, and then as we get that under control, we get the objective -- passing on to another practical experience. Lotze's "psychical mechanism" is really a name for a part of this objectifying, instrumental process. We cease to have that apparent dualism between the material and the processes themselves. While the data are temporarily unorganized, are the debri or isolated elements of experience, which were practically organized, they are data only because this practical experience has become disorganized by the shock or difficulty. The reflective process is the reorganizing of this disorganized practical experience which in a more critical way brings it to a new adaptation, to a new adjustment.

The source of sensation is not an object, a material thing, acting upon a subject, nor any physical vibration acting in relation to any physiological mechanism. The source of the sensation is always a practical one, a disintegration of a practical experience which has become disorganized, broken up, due to some friction in the practical activity, the failure of activity to be adapted, to be functional any longer in view of some obstacle.

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John Dewey's

LECTURES IN THE THEORY OF LOGIC

Delivered at the University of Chicago, Fall and Winter Quarters
(1899-1900)

edited, with an Introduction,

Volume II

By

Steven Alan Nofsinger

A DISSERTATION

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[PART II]

Chapter Four

DISCUSSION OF THE NATURE OF JUDGMENT

This sensory material considered as the object of attention, as that which needs attention, that which calls for attention, for response, defines in every given case the subject of the judgment.

The categorical or descriptive judgment is the judgment which is occupied with the subject of the judgment, where everything is directed to the constituting of the subject of the judgment, in defining the object of attention. The scientific process of observation is the control of the categorical or descriptive judgment which aims to constitute the adequate stimulus for response, the basis upon which the further experience is to be built up. There is no difference in psychological principle between the explanation of that slight noise which interrupts my lecture (when I ask what sort of a noise it is, etc.) and the most elaborate devices and constructions of scientific observation. Both have the same motive, rise in the same situation, and the factors are the same. The difference is in the complexity. Logically the difference is that there is involved a consciousness of the technique in the latter case which is not found in the former. The process has become more critical in detail.

The image is the correlative factor. If the sensation defines the point of stress, the point at which the response is directed, the image defines that with which we respond in constituting a new experience. The sensation stands for the interrupted habit. The image stands for the habit presented in consciousness as a possible, not as the end to be reached, but as a means of dealing with the difficulty, with the stress. We attend with an image and to a sensation. That to which we attend is the sensation. That with which we attend is the image.

Ultimately every judgment has a "this" for its subject (cf. Bradley, in his Logic and in his Appearance and Reality). There is always a particular focus of attention, a particular need or point of stress which calls out the reaction and at which the reaction is directed. We have one class of judgments whose only function is to determine the "this." These are the categorical judgments of observation and description, dealing with the description of the world in space and time, this world being the basis of our response. There is no difference between the attempt to identify a noise and the scientific statement of the whole world in space and time. Both are attempts to make a statement of the "this" as a basis for further experience.

The image gives us the predicate of the judgment. The hypothetical judgment is the development of the predicate, of the idea, of the image. The copula is the act of

attention itself, the movement in the reconstruction of the experience.

[There is a] psychological unity in spite of the difference of critical control on the logical side.[1] The simple process of attention in the case of doubt is the same thing psychologically as the highest flights of reflective science. The complexity and the amount of critical control that comes in in the latter case introduce important distinctions logically. The degree of critical control is what establishes the logical as the logical. The background of the whole matter is the adapted sequence of acts or experiences to one another. As long as experience is organized on a practical basis each experience stimulates or evokes the next, each succeeding experience is adapted, adjusted, to the preceding. But there is no question of this stimulation and response in consciousness. The one evokes the other without this process as process coming to consciousness. When the series of adaptations or acts fails, then this adaptation or process of adjustment comes to consciousness as a problem. The process of conscious attention comes in in transforming the de facto stimulation or excitation into an adequate one. This makes the standard of the whole process teleological.

The sensational aspect of this attentional process is concerned with and directed towards the determination of the stimulus. The image side of this attentional process is

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1. This sentence begins with "The" in the Lectures.

directed toward the discovery and determination of a mode of response. What makes the process an intellectual in place of a practical one is just this, that the interest is not now in the sequence of acts upon acts or experiences upon experiences, each one being adequately the stimulus and response to the other in the series, but the interest is in the discovery of the stimulus and response. There is a period of agitation. This transformation of the practical into intellectual activity must go on whenever there is a problem of just what the situation is and of how we are to respond to the situation.

In many cases this intellectual determination is a highly immediate one, and one which is not, being immediate, precisely controlled by any conscious standard. I think I see a movement. But I am in doubt as to what it is. I look more closely and see that it is a shadow, say, or a bird, a ball thrown past my head. This is a defining of the stimulus upon the basis of which a response may take place. But this is a logical process only in a highly implicit sense. It occurs so much on the basis of previously formed habit and well-developed associations that it is only in a prophetic or anticipative sense that we would be justified in calling it logical. The development of the imagery by which we apperceive is here left practically to the play of the associative machinery. Psychologically it is about the same sort of thing as when we try to remember a name. So far as there is an end which controls the working of these associative

processes, there is at least implicitly a standard and the working of a standard.

Take the scientific botanist who is attempting to identify a new flower. Not only is the process of identifying the presentation (stimulus) more complex than in the former instance, and more explicit, the man's observation is not directed in that gross, wholesale, bulky way, but he has a definite way of going to work. There are certain things which he searches for at once. There are certain features of it which he regards as the key, as the determining things (leaves, root, blossom, parts of the blossom). He has some standard or scale or appreciation, of what is relatively important or unimportant. He has in advance a firmly ordered scheme of activities very different from the crude standard in the case of the "movement" in the illustration above. He falls back on his stock of ideas, images, distinct recollections, of such and such traits as characterizing certain groups or genera. In saying that he has an idea, in advance, of what to look for, we mean that he has a developed system of imagery which he brings to bear in testing and elaborating the presentational material -- his standard. We can imagine that he confines himself almost entirely to discriminating the peculiarities of the particular plant; the form, the number of the particular parts, the particular position in relation to conditions of light and shade, etc. Here he is building up the subject of the judgment, building up the categorical judgment.

As he gets this in hand he, so to speak, reverses his attitude. He runs over his stock of ideas and compares this presented material with plants which he has known and studied. Now he is elaborating the side of imagery, building up the idea, the concept, building up a hypothetical judgment, as on the other side he is building up the percept. There is of course a continual interaction or cross-reference. He thinks of a certain peculiarity of other plants previously experienced and looks to see if it is in this plant. Or he finds a new trail and searches among his ideas for one with which to associate it, so as to classify it. There is a constant passing form the one to the other side of the process.

We have thus first the inhibition of the overt practical action in the case of the scientist. That is, the practical response (in the ordinary sense of the word) has quite fallen out of the case. Suppose the botanist is out walking. He is not looking at the plant in order to get a stimulus in relation to what he is immediately doing (walking). With him it is a part of his business to inhibit all this. Botany is his end.

In the highly developed reflective (scientific) process, which is thoroughly reflective, the stimulus has become a stimulus to reflection not for the sake of action, but it has become a stimulus to further reflection. This reflective process has itself become the end in itself. The problem originally arises with reference to doubt in action. The intellectual comes in to solve the problem, to resolve

the doubt as to action. But with the development of the division of labor this process of resolving problems becomes itself an occupation, an activity, his experience, and end in itself. As fast as this occurs this particular occupation gets its own technique, its own ordered method of procedure, and the logical processes (not the logician's account of these logical processes) followed by the scientific man are simply statements of the method or technique which the man who has this particular occupation follows. The process furnishes its own end. The theory is a practice to the particular person who pursues it. The practices or lines of activity of the agriculturist or botanist are different, that is all. The greatest amount of abstraction from immediate practice is often the most practical.

In emphasizing logic as a normative science, as a science which has an end or standard, we must not overlook the fact that it is not in spite of but because of the fact that it has an end that it has a positive body of methods. The scientific man <u>in</u> the pursuit has worked out a positive body of methods, a scientific technique, a scientific ordering of the processes of observation (sensation) and of interpretation (images). Logic as a science cannot simply confine itself to a <u>mere</u> descriptive statement. It does not accept simply passively an inventory of this body of methods. It must show how these methods are effective, must bring out the principle or theory involved in them as practices. It does not follow as certain writers argue that because logic,

aesthetics, and ethics are normative sciences, therefore their whole procedure is metaphysical (i.e., after truth, beauty, good) without reference to actual experience. Because it is a normative science it finds its data already developed, worked out to a considerable extent. In one sense the methods of a science grow out of the material or content of the science and on the other side the method determines the content.

In the long run the criterion of truth has to be concrete, i.e., has to have a content as well as a form. This is the reason the Ancient Greek philosophy ran to seed in the Medieval period. They sought for some general abstract statement of truth as a mere form, attempting to eliminate the concrete content which alone makes truth truth. The French Academy refuses to receive any memoir on perpetual motion (cf. the squaring of the circle). Here the method in a sense determines the material or content in a certain way. Certain problems are unreal, insoluble, absurd. As science grows, it limits its own research more and more in a negative way. For example, the problems of epistemology and of metaphysics (in the old sense) have disappeared as not really problems at all in any true sense.

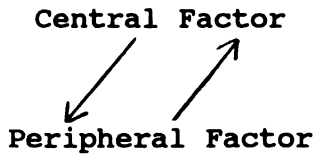
The way to work out a true logic is to take the methods which the mathematicians, physicists, chemists, biologists, historians, actually follow and reorganize them, find out what they have in common, work out the theory or technique which is common to them all as scientific procedures. In

this sense the emphasis in logic must be on the side of form, though of course it does not neglect the content.

The actual judgment which includes the categorical and hypothetical aspects is always disjunctive. Every reflective process goes on within a disjunctive judgment. The judgment is disjunctive at the outset with the emphasis on the dis. There is first simply an outline of possible alternatives. The judgment then later becomes conjunctive as well, or the systematic judgment, i.e., a real classification.

The judgment or reflective attention arises when one act or state ceases to be an adequate stimulus to the next, and consequently the problem of the discovery of the adequate stimulus and of the adequate response arises. The problem as connected with the discovery of the stimulus represents the aspect of sensation and logically finds its statement in the subject of the judgment. The imagery formed as the suggestion of the proper response to the stimulus, the statement of the point of view or method of dealing with the stimulus, is the idea or concept, and constitutes the predicate of the judgment. The entire process of interaction or the act of bringing response to bear upon stimulus and stimulus upon response is the act of attention psychologically or, logically, is the copula of the judgment. (Cf. Dewey, Psy. Rev., 1897, on the "Reflex Arc Concept" for a discussion of the sensational aspect.)[2]

2. The article was actually published in 1896.



We cannot define the sensation or the idea solely in terms of the peripheral or central factors respectively. Each must be defined in terms of the whole coordination or organic circuit. The sensation is the peripheral aspect as determined in the whole movement. The idea is the whole movement as determined in the central aspect. The fact that the motor nerves and efferent reaction is concerned there shows that we have the survival of an immediate reaction. Even in thinking many muscles, e.g., of eyebrows, scalp, chest, diaphragm, etc.,are used. Here is the sensational factor to an extent determining the motor reaction. The main point in calling this an organic circuit rather than a reflex arc is to indicate the systematic character of the interaction. It is not simply a question of reacting to any chance stimulus, but of reacting in such a way as to determine the stimulus. Most theories of the reflex arc fail to notice that the response is directed towards the constitution of the further stimuli. The reaction not only happens <u>to</u> the stimulus, but happens in such a way as to decide in advance a kind of stimulus which is desirable and to avoid the undesirable. All our industry is choosing the stimuli, e.g., we have smooth floors instead of the rugged face of nature. All control in action is the transforming of this

mere arc into a circuit, so that a future mode of response will be facilitated. When the reactions or responses are intended not so much as final, but to the discovery of what the stimulus really is or would be, then we are transferred from the practical region into the intellectual region. In every logical process, in all reflective or intellective attention, we have the same determination of the stimulus by the image. Take the case of the color-blind engineer or the botanist with the new flower.

All observation just in the degree that it is scientific is controlled by an hypothesis, which in turn stands for the unity of the end aimed at. The control of observation by the scientific concept or hypothesis is the logical equivalent of the continual control of the peripheral by the central in our ordinary experiential processes. Of course the continual shifting of tension in the image is the psychological equivalent of the fact that the formation of the hypothesis must in turn be a flexible one, must be controlled by observation, is a "working" hypothesis that has to be continually modified to meet the conditions, must be kept hospitable to the new conditions.

Experimentation is the necessity of putting every hypothesis to a test, the necessity for controlling our observational processes experimentally by an idea, by an hypothesis. Experimentation is used here in an extended sense. The botanist who is observing a plant systematically, not in a haphazard way, may be working experimentally as well as

though he were in the laboratory with his instruments. The microscope is only an extension of his eye, his needle and tweezers are only an extension of his fingers and of the point of most acute vision in his eye. Astronomy is no less experimental than physics. The mind must be kept open to all collateral and incidental suggestions. The significance of experimentation as a fundamental and not as a mere incident to logical process is connected with the fact on the psychological side that the distinction and relation between sensation and ideas is connected with the evolution of acts, the transformation of experience through the media of acts.

The whole process of judgment grows out of the needs of an active experience and is intermediary in such an experience. It is said sometimes that the trouble with ancient science was that it was all based on concepts, that truth cannot be evolved solely out of ideas. This is only half the truth. They did attempt to get results by the mere manipulation of concepts. But it is also true that they relied too immediately on the mere sensational side. Their concepts are for the most part mere generalized sense experiences. It is just as true to say that the ancient science is defective because it did not recognize the necessity of controlling their scientific observation by ideas, concepts, hypotheses. Their scientific ideas and laws were merely generalized classified observations, and they used them in an abstract static way without using them as controls.

It is the copula which stands logically for this interaction which is essentially a process of experimentation -- the interaction of the image and the sensation. The copula is the tension of the subject and predicate in the judgment. One of the main problems is whether the copula has existential force or not. Does *is* mean being or mere mental formal connection between the ideas of the subject and the predicate?

This question was first raised by Herbart and also J.S. Mill in his *Logic*. As experimental, as tension, it is subjective, intellectual. On the other hand, to say that it is only subjective would destroy the objectivity of the judgment and thus give it all a simply hypothetical (and no categorical) value. Both the practical and scientific man are aiming toward objective, not merely subjective, reality in the judgment. How it can be both is the problem regarding the copula. Here is the whole question of the objective validity of the intellectual process as a process. The image represents a phase of experience which is used in helping to constitute by anticipation the sequence of subsequent stimuli. The association of ideas is obviously from this point of view simply sequence of the central factors (put physiologically) that intervene between the stimulus and the reaction. The more direct the relationship the more nearly reflex the reaction. The more indirect and interrupted the more imagery there is, the more thought, the more of this intervening and intermediate central process before the full

reaction takes place. The scientific man is using more and more the central processes, introducing more and more imagery in determining his response, i.e., his scientific observation.

That point of view explains how it is that the material which is furnished us through the so called association of ideas readily assumes logical value, explains how we can get logical data from the association of ideas. Thinking is not a different process from association of ideas, but association of ideas controlled, directed. Unless we stick to the conception of sequence of experiences through action we fall into some such dualism as we find in Kant and Lotze. On the one side we have sensations and association of ideas which are regarded as mechanical, in which the control is derived from without. Even James brings out this dualism in his last chapter of Vol.II [Principles of Psychology]. He there virtually admits that a large part of our experience is built up in this mechanical and external way. Here is the distinction too in Lotze between coincidence and coherence. So in Kant sensation as determined by the transcendental imagination is taken up before the treatment of the same material by thought, by the categories. "Transcendental imagination" does for Kant what the "psychical mechanism" does for Lotze. How do the two ever get together at all? How does the first ever stimulate the second and how does it present relevant stimuli?

If we regard association of ideas as simply the gradual evolution or development of the imagery attendent upon a postponed response to an activity, we see that association of ideas is neither controlled from without nor is it a simply coincident sequence. We have simply the projection on the plane of time, the unraveling and stringing out into its various element, of the act, the response which will meet the conditions presented in the stimuli. We would find even in the most mechanical associations still the factor of relevancy to function coming in, the teleological factor. Go into James' discussion of the association of ideas here. He says that association (habit) can be easily explained after the first association has taken place, after the first groove or path has been worn. It will then follow the line of least resistance. But how did this first reaction ever take place? The question of importance is whether it is a mere matter of accident where the point of highest tension and maximum activity and minimum tension and activity is. Reaction tends always from the former to the latter along the lines of least resistance, from the higher to the lower level. The lower level offers less resistance. Admitting that this mechanical principle is an adequate principle for the explanation of habit, how does the point of maximal activity and the point of least resistance happen to be there? Is it a mere happening, or is it connected with the life and growth, the ends and aims of the organism? It is absolutely fatal to an animal to make reactions which are not relevant

to each other. Natural selection would see to it that the paths of discharge of energy tend to go to the weakest point, to the point of greatest need in the organism. The highest excitation would come at times of greatest need, of hunger, conflict with foes, etc. Function would come in there to determine the combination and fixation of the imagery. The line of least resistance tends to be along the line of greatest need. If it were to the interest of the animal to use the eye at this juncture, then the point of least resistance and the point of most probable discharge would be in this direction. Putting it not with regard to the original formation of the habit but as regards the sequence of the images, if you put the thing of the teleological basis there is always a presumptive basis in contiguity. Take the case of the animal. What shall he do? The very sequence of the acts, and the fact that this sequence takes place in space makes association by contiguity the most natural and convenient statement of the relation of his acts. This is true of contiguity either in time or space. Contiguity offers the greatest relevancy for success in activity. This original teleological relevancy of contiguous elements grows less and less in the intellectual stage where other richer categories come in (similarity, etc.). But even there contiguous association is continually bringing up fresh material in the sporadic irradiating association which accompanies all thought. If you have the main end in view, have a balance wheel, the more sporadic suggestions, the more

fertile (better 40 than merely 3 suggestions). When thinking is best there is not only the most unified thought with reference to end, but the greatest variety of outside suggestions and apparently irrelevant details. There has got to be a certain margin of irrelevancy to select from if there is going to be any invention, any starting out on new paths. Keeping in mind the teleological aim there is no question as to how these nonlogical elements in the association of ideas become transformed into logical judgments.

(Read Bradley, second chap., on the judgment. He is more fundamental in his discussion than either Lotze or Bosanquet. Read Bosanquet, Bk. 1, chap.1, pp.72-103 on the nature and the arrangement of the judgments. Cf. Lotze's theory of the relation of the concept and judgment, Logic, 1, 37-57, and Jones, Philosophy of Lotze, pp.119-156: Bradley's theory of the categorical and hypothetical judgments, the passing over of the categorical into the hypothetical, chap.II; Bosanquet's criticism of this in his Knowledge and Reality, chap.1 and Lotze's theory on the same point, I, pp. 75-96.)

The basis upon which we have been proceeding, that the judgment involves necessarily subject, predicate, copula, is disputed by some logicians. But in every act of reflective attention we can define that toward which we attend, that on the basis of which we attend, and the act of attending itself.

Bradley denies (p.22) the necessity for the traditional subject, predicate, copula (cf. p.49). If he means the verbal appearance in the proposition, what he says is true. "Fire," "wolf," "The sea, the sea," are all three really judgments. Logically, however, I would insist that all three are there, subject, predicate, and copula. Bradley's definition itself of the judgment calls for all three -- when he says that the judgment is the "act of referring" (this is the copula) the "ideal content" (this is the predicate) to the "reality beyond" (this is the subject). Dealing with them in their logical significance, not in their merely verbal or propositional significance, we must have all three.

Bradley ignores the problem of the act (copula) and its relation to the other elements (subject and predicate) in the judgment. He simply assumes that judging is an act. But how there comes to be the setting over of the act against the content or factors to which it applies and which its ultimate function is, he does not discuss at all. That failure to give any critical account of the relation between the act

and these elements is the source ultimately of all Bradley's great difficulties in his Logic and in his Appearance and Reality, which problems he has to turn over to metaphysics. (Cf. his chapter on the validity of judgment.) "Beyond the act" for Bradley means that the act does not affect the reality. We refer the ideal content "tall" to this "man." But we do not mean that the judgment creates it. It simply refers to the reality beyond. Act is subordinate to and not in any way constitutive of the reality with which it deals. Our judgment simply recognizes the relation. It does not create it. That is also the ordinary assumption, that the judgment has existential validity. It supposes that the fact is there and that our judgment simply recognizes it.

All the processes of comparing, discriminating, analyzing, conceiving, classifying, thinking, belong to the act. That act, however, we commonly regard as subjective, not constitutive of reality in any way but, so to speak, only revealatory of it. Here is a problem. How could the copula be a merely subjective process and yet have objective validity? How can the act be ascribed wholly to the subject and yet affect the apprehension of the object in the way it does? We seem to have an antimony here. The copula does not affect the validity and yet it does affect the content. How is this possible? If "beyond the act" is taken strictly, then judgment cannot have validity for reality. But if these three words are not the truth, it may be that reality alters as we think it.

The first problem logically is the origin and significance of the dichotomy in the judgment, the two aspects in the judgment, form and content, or subject and object. The subject and predicate are the content. The act is the process of thinking. "Tall" and "man" are both part of the content, or that which is thought about. The act of thinking or judging belongs not to what we think about, but is the act of thinking. How are we to account for this distinction of the judgment into act and content? We regard all doubt, uncertainty, error, as falling entirely on the side of the act. This is the subject in the logical sense. If a man is not tall it is not the fault of the man (content) but it is the fault of the judging, the act. We have a device by which all the certainty is thrown on the one side, of the content, and all the uncertainty and doubt on the other side, of the act. The content side constitutes the norm, truth, objectivity, reality. It is the business of the thinker and of the thinking process to conform to that standard.

The primary distinction is between the content and the act. The distinction between subject and predicate is subordinate and within the content. While we do not regard the validity of our thought, of our judgments, as being dependent on the thinking process, we are compelled to recognize that the actual judgments that we pass are determined, the actual contents that we take to be real are dependent, at every point upon our own attitude. When we recognize an error to be an error it is not an error any longer. We are

capable of erroneous or false judgment. But what constitutes their falsity is that we take them to be true. We have no infallible way of knowing what does belong to the act and what does belong to the object or content. In all actual judgments the two things are indissolubly fused. Act affects content and content affects our act, our attitude. It is only when we have completed a given judgment that this distinction between the act and the content or between the subject and the object in the logical sense assumes for us any definite form. And even then, of course, that which we regard as object is determined throughout upon processes which we have regarded as subjective. We say that we are not subjective any longer simply because we have reached truth, have effected something (objective). It is easy for us to see that the Ptolemaic system was more subjective than the Copernican. Various elements which really belonged to, or were due to the acts or attitudes of the individuals were projected over into the content, which the later view did not thrust in on the object. But we cannot say that the Copernican system is objective in a sense which does not involve the thought construction. In one sense it involves more elaborate reflection, more intellectual processes than would the grasping of the Ptolemaic system.

There again is the apparent antinomy. The very significance of the thought process is that it shall be confined to stating the content as it is and that the judgment shall not affect the content. On the other hand every content is seen

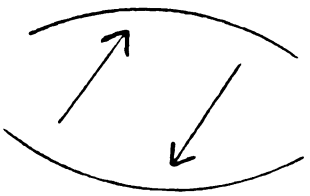
to be in a certain sense a thought construction. If we take the comparison sometimes made, that thought is a scaffolding (Lotze) which can be torn down when the building is erected we get the apparent paradox again. But thinking is not merely an external scaffolding about which the material can be built up but is in the building throughout and somehow makes the building. The building and the scaffolding go up together. The building is made by the scaffolding. Lotze's metaphor cannot be carried out as he uses it. The scaffolding has gone into the building, the thought has gone into the content or object. Nobody would regard the Copernican system as final. If it is subject to revision, then it is because the processes and factors of thought have entered into its structure and make-up.

Wherever there is possibility of error it it because the existing content is what it is because of the presence of thought. Wherever there is truth there is possibility of thought also. We have then the act or attitude on one side (this is the thinking process). We have the content or object on the other side (this is what is thought about). Starting from this fact of the interaction, from the de facto interaction, we get the basis for understanding some of the simplest fundamental logical distinctions.

My thesis or point is that all the fundamental logical distinctions are due to the way in which the act affects the content and the way in which the content affects the act. We

can get the whole logical framework before us if we can see how these interact.

Let us begin with the reaction of the content into the act, or the logical distinctions that have to do primarily with the copula. These do not attach to the copula per se, but as that is affected, modified by the reaction of the material with which it is dealing, into it.



The limits of the act in this matter are bare acquiescence and the attitude of command, imperative. Grammatically this appears as the distinction of moods in the verb, our attitude of action and reflection modified by the material thought upon. Acquiescence and command are not logical but practical processes, but they are that within which the logical processes move.

We are speaking here not of mere social acquiescence, but the attitude of assent so far as that is immediately assumed, not mediated by any reflective process. "I see a hat there" is simple apprehension. The thing seems to force itself upon us without any inquiry or investigation. To all appearances the thought process as such is purely passive and the content thrusts itself upon us. Thought has nothing to do but merely accept the content. Thought is not explicitly present in the immediate perception, "That is a hat." But if there should be any doubt in the matter then thought

would come in. Acquiescence indicates the fact that thought is not explicitly there.

The attitude of the imperative is the reverse. It expresses the subject, the agent attempting to discriminate the object, the material, the content. This is not merely the social imperative, but the imperative in which a man directs himself. This is the active determining attitude which James calls the fiat of volition (without the ethical implications of that term), when a man starts to do something, makes a new direction in his experience, starting with some idea of his own. "Must get up now; must not lie here any longer in bed." Instead of the material determining immediately the thinking process, it is rather the idea which attempts to determine immediately and directly the experienced content.

These are the limits of the copulative process. On the one side the content determines the act, and on the other side the act attempts to determine the content. Neither of these constitutes a judgment, but the moment either ceases to be immediate, then the copula is not merely the practical combination of the factors in experience, then we have the reflective attempt at relating. The moment a man does not immediately acquiesce he is in doubt, uncertainty, suspense, which implies that his final assent will be mediated, determined, by the mediating process of reflection that he goes through. There we have the judgment. Introduction of any element of doubt which postpones acquiescence introduces the

judgment. That turns the assent into affirmation and turns the ignoring (which is the practical counterpart of the assent) into negation. We have thus affirmative and negative judgments representing the termination of the process of doubt, mediating assent. Psychologically this has to do with what we call belief, certitude. Every acquiescence or absorption (it takes possession of us) involves a corresponding practical inattention to everything else, an ignoring, a denying of everything else. When this practical ignoring becomes conscious we have the negative judgment.

The distinctions of modality, so-called, (is, may, must be) have their origin here. The assertative (is so), the problematic (may be so), and the apodictic statements (must be so), are representative stages in the transformation of the immediate acquiescence into rational assent.

Historically the discussion of belief or conviction and the discussion of the content of judgment have become divorced. The first has been regarded as psychological, the other has been relegated to logic. In Aristotle rhetoric has to do with the bringing of a man to a certain state, while the discussion of the content which would compel belief was regarded as belonging to logic. We need to discriminate the two, but after all, the two things cannot be severed. They are two phases or aspects only. The true content is that which throws us into this attitude of conviction, and the attempt to separate the question of truth from the question of certitude is an impossible thing. The practical

distinction which is often implicitly if not explicitly made, that the scientific man is concerned with content only and the lawyer, preacher, physician, etc., only with the attitude, has great dangers in it.

The imperative attitude, the determination of the actual content by an ideal or idea, is what we have in the ethical judgment. The arrest of the imperative attitude gives us the optative mood, judgments of wish, would, that so and so were true, I wish, I want, should, would, ought. Generalizing it on the ethical side, we say "This ought to be so."

Development from the side of the imperative represents the determination of the content by the act. Development from the side of acquiescence represents the determination of the act by the content. In logical development that would lead to what Kant called judgments of the practical reason and of the theoretical reason. The one ends in the categorical imperative and the other in the categorical descriptive, the "is" and the "ought." According as we start from one side or the other we get the judgments of acquiescence and imperative, of the scientific and the ethical judgments. Every formulation about matters of fact tends to become a rule of action or conduct. There is a tendency always in the purely theoretical statement to get a practical value, a value in conduct. But this categorical imperative is not like Kant's merely formal. The state of the case being thus and so, it is duty to do thus and so. The pure imperative

when it is questioned has to give a statement in terms of the other judgment. The basis for the classification of judgments (of quality, quantity, etc.) is found in the definite stages in the movement between these two extremes or limiting judgments. As the theoretical emerges on one side out of the difficulty in direct experience, the theoretical judgment must finally express itself again in action so that the imperative judgment is the limit also toward which the judgment is actually working -- action, direct experience again, though on a higher plane.

We have the interaction of the act or attitude into the content all the time. Put psychologically, this says that all perception is apperception. Every content no matter how immediate it appears is after all dependent on a constructive, construing, interpretative process which we refer to the agent. It is this reaction of the act or attitude into the content which constitutes the differentiation of subject and predicate. This is of fundamental importance in logic.

We will get at this point indirectly rather than directly. It is possible to think of subject and predicate as being somehow in a more or less vague way there, and then the copula coming in as a third term which proceeds to bridge the gap between the subject and predicate, or which brings the one to bear upon the other. "The whale is a mammal." According to this conception we already have the conceptions of "whale" and "mammal" lying around in our mental processes, and then the copula comes in to connect them.

This is the standpoint taken by most logicians. There is a certain truth here. We have had experiences of whales and of mammals and in this sense the material of the subject and predicate has been found before in my experience, and we may look upon the judgment as connecting these previously unconnected things. But it is the material only which has been present, and the material as such is not subject or predicate. These have not been in experience before, but are constituted as subject and predicate in the judging process. The act of judging at one and the same time takes its previous experiences, or takes values, qualities, of previous experiences, and makes out of that subject and predicate as well as connects them. This material "whale" which preexists is not subject of the judgment. It is transformed in being made the subject of the judgment, and the same is true of the predicate "mammal." That which makes this material previously experienced a predicate is not its bare identity, but it is this transformation which takes place in the judgment which constitutes it the predicate.

Put in another way. The act of thinking as found in the copula not only unites the subject and predicate but just as certainly discriminates the subject and predicate. The copula is the tension in the experience between the forming stimulus and the forming response. The copula is the tension in the status of action and the factors are what they are only in and through this tension. It is not true that they are there before and then are mechanically hitched together

by the copula, but each is in a process of becoming what it is through the relation into which it is brought to the other.

Put in still another way, subject and predicate are only functional distinctions, distinctions of divisions of labor in the reconstruction of experience, finding their differentia in the respective part which each plays, and not in anything which belongs to either as distinct content. The significance of this point comes out best in criticizing and discussing Bradley's view. I accept Bradley's definition of judgment, with this modification: judgment is the act of referring meaning to existence. Bradley's treatment of it leads to a blind alley in both directions and throws over the difficulties and contradictions to metaphysics. I say that Bradley gets into these difficulties because he takes the subject and predicate as ready made instead of developed in the judgment.

The problem on the side of the subject, for Bradley, is as follows. How can reality, existence, accept and assimilate to itself something which is so unlike itself as meaning, as an idea? How can fact fuse with idea? Where is there any meeting ground or common element on the basis of which or through the service of which these two disparate things may come together? Here arises the whole metaphysical question of the relation of the real to the ideal. If the definition of judgment is correct, judgment is something which we are doing all the time; both in ordinary life and in

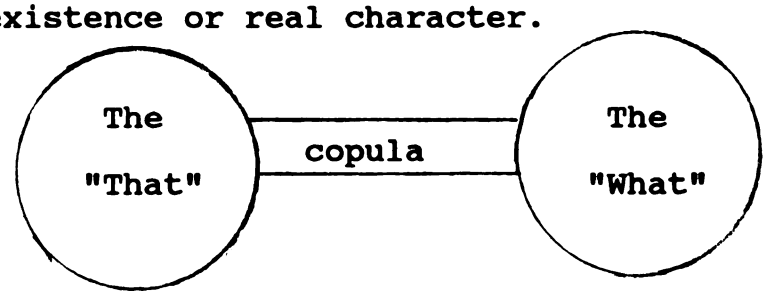
scientific experience we are making this assimilation. It would seem therefore that we are doing it all the time. Why can we not state it this side of metaphysics? But it is not only because it becomes a metaphysical problem, but it becomes from the logical standpoint, for Bradley, a really insoluble antinomy. It introduces contradictions into logic itself, and this certainly suggests that there is something the matter with his logic. What I am chiefly criticizing here is Bradley's treatment of existence and meaning or "this" and "thisness" ([Logic] pp.49-69 and 77-78).

One of these logical questions which remain insoluble for Bradley is this: the lack of any working criterion to distinguish between a false and a true judgment. Bradley says that judgment is never a union of ideas merely. That leaves us with something which is purely hypothetical. This is not what a man means when he judges. He takes his judgment as having a certain existential force. The man does not regard himself as dealing with mere ideas. The subject of our judgment must always be something existential then, concludes Bradley. We do judge about some existence (this is not necessarily capable of sensuous presentation; we may judge about God, the soul, etc.). But Bradley insists that we always judge about reality, existence, not about mere ideas. We always go back to some reality in our judgments. He begins with judgments of sense presentation (Analytic Judgments of Sense), and takes the position that while the sense presentation is not the reality of the judgment, yet

that reality must always come to us in and through sense presentation in order to afford the judgment a subject for predication. Here is another good illustration of the author who is most consistent in denying the value of psychology for logic being himself the very one whose logic is most compromised by a false psychology. Bradley falsely assumes that the subject is already there.

The sense presentation as subject of the judgment is developed only in the process of thought instead of being something given to the judgment. Bradley is sufficiently logical to see that the content of any sense presentation is itself ideal. The "what" of the subject is distinct from the "that" of the subject, and is just as ideal as anything contained in the predicate. This or that is black. Does "that" have any content or "what" or quality before you get to the "black?" Could we refer "black" to a "that" which did not have any quality or significance of its own? We have discriminated the "that" as "that" only by giving it a certain meaning. As subject of the judgment it involves already a certain ideality. Even Bradley points out that space qualification is idealization so far as it goes (Logic, pp. 50-55). "The now and the here are not confined to simple discrete and resting moments." "The reality of the subject we divine to be self existent and substantial...but it is adjectival, ideal." (cf. p. 77 and 68.) We mean by "this" he says, "the exclusive focus of presentation, the bare fact that it is presented." It is a sort of hole (p. 70) through

which we look at reality, or a point at which we encounter reality or existence or real character.



Everything that is in the circle is content or meaning. But the fact that it is there, the form of it, the circumference of the circle, so to speak, is its reality or existence.

The question is how do we know that there is any real connection in the subject between the "that" which is bare existence and the "what" which give it its meaning? Bradley gives no functional explanation of this relation in the subject between the "that" and the "what", between its existence and its meaning. What bond is there even in the subject between its "that" and its "what"? An hallucination or dream has this bond as well as any genuine perception. Of course, if they are connected in the subject we can understand how a similar relation comes between the subject and the predicate. But the question is how they can be connected or, if connected, how ever distinguished, even in the subject. What is emphasized here is the necessity of giving some kind of a functional derivation, to show how an experience comes to assume the aspect of form and the aspect of content. What we want is a theory which will deal not only with the connection of existence and meaning but a theory

which will give us as well the differentiation of existence and meaning.

The analysis of the judgment as performed by the logician reveals these two functional aspects of subject and predicate. The statement of the logician only makes conscious what the practical man's judgment actually is. The judgment is never a judgment searching for an absolutely unspecified predicate. We never make an absolute judgment of this sort--"That is ?" There is always some more or less specified hypothetical predicate. In other words, we never get a judgment except where there is doubt, and doubt means that there is at least one hypothesis. Judging is the defining of one of these hypotheses as a predicate to the subject within the act of judgment. The subject as subject is constructed within the judgment. The subject helps in one direction or need and the predicate helps in another direction or need in getting a reorganization of the experience. What is the need which leads to the differentiation of these two factors of subject and predicate? What is the particular function of subject and predicate?

In speaking of subject, predicate, and copula, one is apt to get the idea that there is something, some tertium quid, which is the copula. The copula is not distinct from the content. The copula <u>is</u> the tension, the influence of the subject on the predicate. The copula <u>is</u> the function. The ordinary statement is that the predicate is used to qualify the subject. That statement is true (a truism indeed) but it

involves an ambiguity. It may mean two things which have a very different import. In one case we suppose that the predicate somehow immediately and directly qualifies the subject. The "white" is directly added to the content suggested by the "snow." This interpretation is not correct. We use the predicate to qualify the subject, but only as it gives us a point of view from which we qualify the subject, a tool or instrument by which we qualify the subject. We do not suppose that the hammer and saw go over into the building. It is not the capacity to be thus directly absorbed which constitutes the predicate as predicate. It is its capacity for use in determining the subject. The theory of perception as worked out by the empirical associationistic school is that we begin with certain sensations which have an existence by themselves. Those sensations call up by association by contiguity or by similarity certain images and there is an indissoluble association, fusion, set up between them, and the dropping out of the intermediate links, and we get perception (i.e., mediate association). But how does the presented material and the represented material ever get together? The image instead of being something which is mechanically fused with the presentation is the point of view from which the presentation is interpreted. Its use is not to add on to the sensation, but to determine it as this or that, to modify it. The presentation is reconstructed <u>by</u> the imagery. Images which are very remote may be of very great service because they furnish or suggest modes of

interpreting the sense material. The predicate is of use in qualifying the subject, but it is not added to or superimposed upon the subject. There is a continual transformation of a subject. That which controls this transformation and that which effects this transformation is what we call the predicate.

Chapter Five

THE SUBJECT OF THE JUDGMENT

When we say that the subject marks a functional distinction we mean that it does not mark reality or any particular portion of reality that may be regarded as preceding the judgment. The subject of the judgment is not reality nor any particular piece or portion of reality if this be regarded as prior to the judgment. The subject of the judgment as subject is rather the use which we can make of reality in a certain direction, or it is reality as tending towards a certain result, that use and that result being defined through the judgment and not outside of it or prior to it.

What is this use or tendency which constitutes the subject of the judgment? That has to be stated on two sides. Formally the subject is that which presents the obstacles to be overcome and thus which furnishes the problem. It is not the problem, but it is that which creates, which gives rise to the problem, by presenting an obstacle. As presenting the obstacle it locates the point of greatest stress, of greatest urgency, and hence it locates the point at which thought must be directed. In presenting the obstacle it presents the crucial or strategic point through flanking which, getting around or over which, all the energy must be directed. That is the subject. The obstacle presented as determining where

energy must be directed in order to be successful is the subject. That is what is meant by calling the subject a function. That constitutes the "that" as distinct from the "what." The apparent brute fixed character there of the "that", not of course that there can be a "that" without a presumptive "what", but simply deciding where attention must be directed, subject presents the form of experience rather than any special content of experience.

The subject cannot be identified (contra Bradley and Bosanquet) with the simple fact of sensation. Psychologically it involves the motor reaction as well as the sensation. No sensation as such can ever define or locate the subject of the judgment. It is the obstacle or friction, as that to which the energy or mental activity must be directed, which constitutes the subject. The directing of the energy to it always has its psychological equivalent in the motor reaction. It is impossible to define "this" in terms of mere sensation. It is only through the motor response that the difficulty gets located, that the "this" gets located, so that it can serve as the subject of the judgment. A mere "this" is absolutely undetermined. It must become determined, defined, before it can become the subject of a judgment. "This" is what we attend <u>to</u>, which of course, includes the obstacle. There is never a mere "this" or "that" (in contrast to the "what" or quale). It always has <u>some</u> determination. On that content side, then, that constitutes the subject which, with reference to the problem in hand, is

taken as unquestioned, as therefore something which can be relied upon in any further procedure. There is nothing in the content itself which makes it subject, but the relation which it bears as reliable, to be depended upon. That is another reason for calling it functional.

That is the way I solve the old problem of the relation of sensation to perception.[1] The question of what the sensation is in any given case is a question of detail for the particular case. It is simply a question of how far you need to go to get a firm footing, to get a pou sto. You cannot go back so far as to get no footing at all. There is always something which has to be accepted in any investigation as the basis of that investigation. If a man steps on the ground, no matter how slippery, he does not get along unless it is stable enough to give him some footing. It is not true that the sensation is given by some process outside to the judgment, but it is taken by the judgment as given. That which the judgment accepts, lays down, posits as the basis or datum for its further procedure, is the subject. The subject is just what the datum is to the scientific investigation.

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1. The text is confusing here. Immediately before this sentence, at the extreme top of the page, part of another sentence appears (".....a social instrument of communication .....that have been taken historically regarding the nature, value, and purposes of thought."). It is not indented according to the regular format of the text and appears in much lighter print. Moreover, the page heading is superimposed over this partial sentence.

That point that I[2] was making at the last hour was that in one sense the content of the subject as the subject might always be regarded as given, and that it was in that sense brute or arbitrary and not a construction of reflective thought, but that the error arose when the factor of the given element, of the brute element, was regarded as, so to speak, existentially, physically, or metaphysically given, instead of being given in the functional sense. We should say rather that it is taken as given. Its very character of being given to thought is in one sense the work of thought. It is that which thought does not need to question or examine at the time but which it can assume as the datum for its further constructive process.

We get there a standard or basis for resolving the problem which has certainly made one of the main lines of division between the empiricist and intellectualistic schools of logic. The empiricists have always insisted that the ultimate subject matter of thought is given through the process of sensation, that this was the material which was forced upon the mind and that the mind's activity was confined to the formal work or rearranging this material thus directly sensuously given. Hobbes says that all the work of thought is adding and subtracting, putting together and tearing apart what sense gives. Locke's activities of compounding and abstracting, putting together and thinking apart, is the same. On the side of the empirical school in

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2. Sic.

logic these two doctrines always go together, the material presented to thought absolutely independent of any thought process and the restriction of thought to the formal activity of rearranging and analyzing.

The intellectual school maintains that any sensation material that is capable of entering into judgment at all is already subjected to thought categories, that absolutely raw or bare sensation would be incapable of forming any intelligible material or data for thought. Thought could not operate on it, would be essentially chaotic, disorganized. Any consistent sensationalism would be speechless, would represent mere shocks of feeling as in the animal consciousness. They have pointed out that the so called pure sensuous data which the sensationalist regards as given is very much sophisticated by thought processes of construction and interpretation. From the time of Kant on we have the attempt to point out the fundamental categories of thought to which this sensuous material must be subjected in order that it may present itself as the subject of the judgment. So far as modern English philosophy is concerned it is T. H. Green who represents the application of this intellectualistic position in logic against the sensationalist. He shows the undue assumptions and contradictions underlying the sensational school. It is due to him more than to anybody else to have brought the English mind to a recognition of the error in Locke and Berkeley and Hume. He points out that Locke and Hume have already in their sensuous material factors which

are derived from thought. (Cf. Green's lecture on logic, Works, Vol. II, particularly on the logic of the formal logicians where he deals with the necessity of conceiving the sensation in order that the sensation may even be perceived.)

The crux of the whole question is whether space and time arrangement or considerations can be regarded as given in sensation or not. Hume by taking for granted contiguity is enabled to explain away certain apparent thought relations like causation. But Green asks whether contiguity itself is possible excepting through thought.

Summing up, the sensational position regards the whole subject matter of the judgment as directly due to sensation, directly for the subject matter as it appears in the subject, and indirectly as it appears in the predicate. (Cf. Hobbes that imagination is simply decaying sense, sensations which have lost their vividness or vivacity. So also with Locke and Hume.) Thought is the mere combination, formal rearrangement of the material which as such is all directly or indirectly due to sensation. Without criticizing the theory in detail it certainly evokes one serious problem, why this rearrangement should ever take place. Adding and subtracting, compounding and abstracting, is a departure from reality. What is the stimulus to it and what can be the use or sense of it? The more we exaggerate the sense element the more difficult it is to explain why people should ever think at all. Or, putting the thing on the positive side,

apparently there is some defect, lack, in the material as given, which stimulates the thought process as such, and the thought process is to make good this defect or lack. It does so not by merely rearranging this sense material but by reorganizing its content from a confused medley into a harmonious and transparent, luminous, whole, both as meaning and as existence. The first primary defect of the empirical logic is its neglect of what I may call the negative factor, assuming that the data of thought are all coherent to start with. It is precisely the unorganized the inconsistent character of the given data which stimulates thought and which thought attempts to overcome. Thought modifies thus qualitatively the original data.

The intellectual logic has plainer sailing so long as it is simply criticizing sensationalism. The ultimatum of its position is that the subject of the judgment as well as the predicate is a thought construction, that thought is not a formal process working upon a given material but that thought constitutes the material with which it deals. Read the section in Green, worked out in his Prolegomena to Ethics in a more metaphysical way. Having accepted Green's criticism of the empirical school, we have difficulties also in accepting the conclusion of the intellectualistic school. The more obvious difficulty is that it seems as if thought accepted, received, the sense material in some sense. The intellectual logic seems to imply an endless regress in constituting this material of thought, and thus involves a

contradiction itself. There is no pou sto from which to start in this constitution of the data if something is not given at some point. The intellectual school distinguishes between what it calls the objective constitutive and the individual or personal part of thought. The former is the same as the transcendental logic of Kant and the objective logic of Hegel. That would seem to relieve the intellectual school of that difficulty. But what is the concrete relation between this universal constitutive thought process and the individual reflective thought process? The reflective individual thought process must come into play to correct the mistakes of the universal constitutive thought process. The intellectualistic logic leaves us no motive or standing ground for the thought process any more than the sensational school. Why should the universal constitutive thought process break down just at the point where it should bear up, and if it does not break down what is the function of this individual reflective thought process? The latter in such case would seem to be a work of supererogation. So the intellectual logic has virtually to assume that this objective universal thought does its determining work just enough to present material for intellectual organization, just enough so that it is congruous with the thought process, and also just so little so that there is something left for the individual thought process to do. It cannot do the whole thing else there is no place for the judgment

left, i.e., for the reflective thought process of the individual.

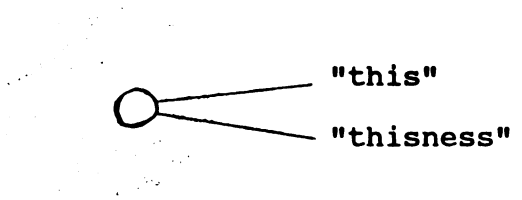
Beyond that there is another difficulty, that it can never wholly dispose of sensation. Sensation is a necessary part or factor in our experience and necessarily operative in giving us the data of our judgments. The intellectualist gets on alright so long as he confines himself to proving the necessity of a rational construction of sensation, but he cannot make this construction a substitution for the sensation. Given the sensation it must be rationalized. In this sensation is a sort of irreducible residuum presupposed by the whole intellectualist machinery (which would have no excuse for being, no raison d'etre, if it were not for this brute sensation which needs to be rationalized). The matter is left there then after all in an unsolved state. Thought comes in as working against or upon an alien element, upon the sensation, which leaves it in an unorganized or erroneous or mistaken basis. Judgment or reflective thought still has something to do. It is in the application of thought to sensation and the opaque alien resisting of the sensation to thought that the intellectualist school finds this negative factor as a basis for thought to go on to do something.

Bradley's view is something like this. Suppose yonder wall as a real metaphysical whole. There is a little hole in the curtain through which the wall projects or sticks into us. That is the sensation which gives a glimpse into the

reality behind. And then our thought process comes in as applied to the sensation which comes in through this peak-hole and we succeed in guessing, in building up the reality which we do not get through the hole. Now this hole is all the time shifting, so that we get a panoramic series of sensation glimpses, and from these thought in the judgment interprets, constructs, these momentary glimpses of reality into something like an organized whole. But this point of view denies all logical significance to sensation. Logic has to take account of it, since our logical data are compromised by the fact that we get them only through this shifting medium. But sensation is not a logical fact, it has for Bradley no direct intrinsic logical significance. In and of itself it is pre-logical. It is important in logic because it presents this difficulty, but Bradley says that sensation is that through which we as finite beings encounter reality. Sensation is the way in which reality appears to us.

But I say that this denies all intrinsic logical value to sensation. It makes sensation a limitation pure and simple under which our intelligence is obliged to operate, by which the activities of our intelligence are forever prohibited from getting beyond the phenomenal or the appearance. We can get a genetic derivation for sensation, as a factor in the growth of experience, where it loses this mysterious, incomprehensible, and purely limiting meaning. The judgment, says Bradley, is the reference of an ideal content which appears in space and time, which is encountered in sensation,

but which is not to be limited to that presentation--to a reality beyond. We might take Bradley's position perhaps if there were nothing better. But there is a self contradiction in Bradley's position. Suppose the diagram presents the hole. Does he mean that the content which we find in this little hole is mere "that" and no "what?" (Cf. p. 65. [Logic])



He says that "thisness" is ideal. The fact "that" we sense reality through the hole is real. The "thisness" is "what", says Bradley. I ask what is the connection between the "this" and the "thisness?" We peak through the hole, but after all we do not see anything. What we see is after all, says Bradley, a picture which we have constructed. Well, what earthly guarantee have we that this constructed content really belongs to the wall? Bradley says that it is because we cannot hitch the content of our waking life on to the content of our dreams that we conclude that the content of the dream is not real. But why not turn this around and say that because you cannot hitch the content of what you see through the hole to the content of the dream therefore the content that you see through the hole cannot be real? Unless we can find some kind of intrinsic and organic connection between the fact of the sensation and the content of

the sensation, between its "that" and its "what", between the "this" and the "thisness," what assurance have we that we have got reality at all?

We never carry our thought analysis back any further than is practically necessary at the time. The substitute for this objective constitutive thought process of Green, etc., is the practical or teleological organization, organization through our past habits. So far as our past habits do not break down, so far we do not have to go further back.

The conception that the subject is given in a functional sense, that is, that it is taken as given for the sake of what can be done with it, for the sake of further reconstruction, seems to give all the factors of both these views their proper place, and to eliminate the assumptions which makes these theories objectionable. The points are these: (1) How can the subject be in some sense given and yet be sufficiently organized to furnish coherent data for the thinking process? How can it be given and yet be in line with the thinking process and what the thinking process is trying to accomplish, to escape the purely formal relationship between the sense and the thought processes which come to the front in these theories? (2) How can it be of such a nature as to provoke the thought process? (3) How can it accept to itself the results of the thought process? How can it be such as to be transformed, qualitatively modified and reconstructed by the thought process -- so that the thought process reacts into the constitution of it as a content?

(1) The general point of view is that there is a failure in the complete adaptation of an activity, the various factors of it coming into conflict, and there is one part or point where the conflict and need is greatest, and that is the point of attention. The breakdown can of course never become complete, there can never be absolute disintegration without there being destruction, complete collapse of all organization, collapse of all principle of control in experience (and we have insanity, for example). That is, there are certain previous activities which persist, habits which continue to operate, and which in operation define a certain phase of the experience for us. In this practical organization we find the working substitute for this transcendental logical determination which the intellectual school insists upon. Of course, in any developed conscious life that organization is also influenced more or less by previous thinking. There is very little content which we can present to ourselves which has not been modified by previous judgments. However immediate it may be now, back of it there is a great deal of mediation. There is not only the present conscious teleological organization, there is also a great deal of past critical selection. Some part of our previous experience relevant to the present experience still stands by us, so to speak. But this is not any longer logical. These processes have become automatic, habitual, immediate, brought together through the principle of habit or life functions. It will then be a question of degree depending on the nature

of the particular case just how far back we attempt to go in stripping down the subject to its most immediate elements. It is not of the least importance logically that we should succeed in elimination from the subject all traces of idealization or rationalization. When I say that the idea belongs in the predicate and the subject gives us existence, then if we take it in the static sense, it would be necessary to eliminate all traces of meaning as such out of the subject. But since it is taken in a functional sense, it is only that which we <u>use</u> as ideal which belongs in the predicate. It is a mere matter of expediency how far back we will go. We may be perfectly justified in the particular instance in saying "I met my brother on the stairs," while in another case we might not be justified in saying even "I met a man on the stairs."

What has been said with reference to the attitude of physical science would be relevant here. The methodology of the physical sciences in their assumption of the homogeneity in space, time, and motion, and their ability to get the quantitative statement--all that is simply a method or device for controlling the statement of the subject whenever it is necessary to do so. The statement of physical science puts into our hands the machinery or tools or form for carrying back our statement of the subject so as to secure the least possibility of error and the greatest probability of getting data which will be fruitful. The statement in terms of physical science is not a statement <u>of</u> the subject as

such, because it lacks the particularity, the immediacy of the sensational element, of the "this" which is necessary to the subject of the judgment. But it is a scheme for determining the subject of the judgment to whatever extent in any given case we regard it as desirable to extend it. That is the reason why there is no real conflict between the position of the scientific man and the common sense of the practical man. If the science were stating an objective world as real, as ultimate and final, it would provide a rival statement which would be a substitute for and a necessary rival to the statement of the real world which we have in practical life. But just because it is not intended as a statement of reality as such, but simply a statement of certain phases of reality so that in all cases of doubt we have an instrument or method for determining the reality which may be accepted -- it is an auxiliary to the practical life. As matter of fact the scientific statement, scientific knowledge, gives power. It does not confuse the practical man. It gives greater facilitation and economy of experience. The scientific statement is simply a statement of the way in which we can determine the subject of the judgment as that which can be accepted for the time being as the basis for further inference and interpretation.

(2) Deferring the second point (as to its stimulation the process of thought) until we have discussed the third point, we pass at once to the latter.

(3) The change in the structure takes place only that the function which the structure subserves may maintain itself. If the sense material and the thought process are really foreign to each other, if existence and meaning are essentially two distinct spheres of the real and the idea, then this initial transformation of the real <u>through</u> the ideal, this continual acceptance by existence of new meaning, this continual growth of fact in significance, is theoretically inexplicable, cannot be accounted for on the basis of our fundamental philosophical conception if there is this rigid existential dualism between the real and the ideal. In the practical and scientific process they are all the time coming together. There is the constitution of the existence <u>through</u> the thought and significance. On the teleological theory there is no problem there. The end that we are after is precisely this reconstitution of existence into an harmonious whole again, and that this should occur is the normal natural thing. It is simply the failures that have to be dealt with. We have a tentative acceptance of something as data, and the question or problem lies in that the data are more or less hypothetical. This unknown determination falls on the side of the predicate. There is no question about there being some meaning which is necessary for the determining of the given fact, but what this unknown is is what is being searched for. The facts in the subject are only partially determined. For a fact of the subject to accept this qualification by the predicate, to be qualified by the

meaning, means that we have succeeded in making one of our possible statements of the real work.

(2) To return to the second point, it is this. It means only that there is the tension in the activity itself, that which we accept not as complete but as incomplete, as a working basis, as a stimulus to call out certain responses, and that we judge it simply from the standpoint of its success in thus suggesting relevant and fertile lines of thought. We accept any statement as the fact for the sake of and in the degree in which it sets going lines of association, brings up new points of view, ideas, hypotheses, which serve to fill out the gaps in the existing statement and to get rid of the inconsistencies and contradictions, and supplies us with an harmonious statement.

The characteristic of any scientific data is that on the one hand they are sufficiently unquestioned to be working data, can be taken for the purposes of that experiment or investigation. There is something about them which is categorical, and upon the basis of which something can be predicated. On the other hand there is always something lacking, some problem. And it is the tension between these two sides which keeps up the thinking process, and it is the solution of the problem that gives us the new reconstructed experience.

Is this true of the deductive sciences? Yes, it can be illustrated even from geometry. Take a triangle. If there is no sense of inadequacy in the data, where are you going to

get any stimulus to going on to working out the principle of the triangle? Take the original thinking process. How could it have taken place as a logical process excepting through the recognition of an inadequacy or inconsistency in the data as at that time accepted? There is of course a marked distinction between the inductive and the deductive sciences, but in each case the premises are really data and not merely full positive statements. On the deductive side the man comes at it from the side of the predicate, of the conclusion, and the question is as to the conditions under which a given idea would hold good. But he uses the conclusion in that case really as one of his premises. He takes it as if it were true and sees what will happen. There is a tension or gap between that and some other proposition which is accepted, and the deductive scientific process is the getting rid of that gap. But this is just in essence what takes place in the inductive scientific procedure.

If I say that the ordinary conception of the inductive reasoning is that from two given truths you draw a third truth, the point is that this holds just as much for deductive as for inductive reasoning, that the conclusion is rather a reconstruction of the premises than a drawing of a third truth. There is a continual process of determination, of explicit and coherent statement, and the distinctions between premises and conclusion are but limits in this continuous process of the reorganization of experience.

We must also call attention to the question as to the entire discrepancy between what Bradley calls the "this" and the "thisness" on the basis of such a theory as Bradley himself holds: the discrepancy between the fact of sensation and the content of sensation, between the sensation as an event which simply marks our encounter with reality and what is perceived, experience through the medium of the sensation as an event. According to Bradley the sensation as an event simply marks our encounter with the reality, we and the reality are both always there and run into each other. This encounter brushes aside for the moment the curtain in front of the reality and gives us a peep at the reality there. Now if he could go on and hold that in that contact we really do get an intuition of reality, knock off the scales of reality so to speak, and get a direct vision of the reality itself, the theory would not have this particular difficulty. But he cannot do that. What we perceive is after all dependent upon our mental construction, it is not really given. It is simply its unique character of being "this", the form, the particular place which it occupies in experience as being now and here, that is given. That guarantees that we have <u>an</u> experience, but nothing as to the <u>character</u> of that experience. The shock of the sensation assures us that there is some reality there. But the practical scientific man is not interested in any such question. He is interested in choosing, discriminating, judging between aspects of the "what" or content. We want some rational ground or standard for

deciding, or at least for preferring, in this particular case between this or that. Because Bradley makes the sensation a mere event there is absolutely no basis of connection between this categorical fact that there is a reality, that we have an experience, and the particular "what" or character of the reality or experience. Hence for Bradley the categorical judgments dissolve into the hypothetical, and it is only in a purely metaphysical way that he gets back to the categorical judgment at all. The result is a very peculiar thing. Bradley starts out with a criticism of the theories which make the judgment a combination or separation of ideas merely, and insists that judgment implies a reference to existence or reality. But if all judgment is hypothetical, then after all, on Bradley's theory, it can be but a case of ideas. The only difference between this and the theory he criticizes is that Bradley maintains his religious faith that there must be a reference to reality. But the question is as to <u>how</u> it refers to reality.

On my theory there is no such disparity between the fact and the content of sensation. Sensation is an event or occurrence which simply marks the point of stress or break-down where habits conflict with each other. But it is just that content which defines the problem and furnishes the stimulus for the solution of the problem. There are not two things, the form and the content of sensation, but we simply take it on the negative side as marking the failure and the

stress or shock, and we take it on the positive side as the stimulus which it gives for doing away with this difficulty, with this shock. The shock always tends to call out certain responses, certain reactions. The shock serves as a stimulus to call out responses which react into it and changes it and controls it. So far as this response goes on we have the "what", the content, the meaning of the sensation. A stimulus without being a response would be a mere shock. Stimulus has meaning only in relation to response. The two are always strictly correlative.

[Winter 1900]

Last quarter we had not quite completed the discussion of the subject of the judgment, though the essential points have been brought out. I will go over the matter again now in a slightly different point of view, stating the matter with reference to certain other problems. In doing so I will formulate what I have to say under the two laws or principles of Focus and Context, as words to designate the matter by.

The general points made so far were, first, that the subject matter was determined, that the subject of the judgment was determined as subject, by reference to a certain needed function or service in the reconstruction or growth of experience; and that particularly, that which defined the function of the subject and so determined its content or make-up, was the location of the difficulty which has caused

the former experience to break down and which necessitates therefore the building up of a new mode of interpretation, a new point of view, and which, positively, presented the material which, as unquestioned at the time, was immediately available for the reconstruction (that is, available without further interpretation).

Now stating the matter with reference to the problems mentioned (the meaning of particularity and of universality as related to the subject of the judgment), we may say that the subject is constructed, but constructed simply in the sense that it is selected with reference to a given problem, interest, which is occupying the mind. It is not, as subject, constructed in the sense of being reflectively mediated at the time (in that sense it is given, it is what the mind takes rather than being the quality); but in the sense that it is selected, it is ideally, subjectively, determined, and in that sense may be regarded as constructed.

The subject, then, represents the materials of the future experience as these are temporarily in opposition to each other, in tension, and therefore requiring reorganization as to their form, requiring harmony or system in place of the opposition. But as material, as content, they are accepted as they are given, and in that sense they are categorical. But the whole point lies in seeing that that acceptance of the content is after all selection, not a mere passive acceptance. It indicates what the mind accepts, what it is willing or necessary or desirable to take as the

material; on the one hand the disjecta membra of previous experiences, and on the other hand as the stuff out of which the new experience is to be built up. An article by Professor Mead in the Philosophical Review, Jan. 1900, bears indirectly on this topic.[3]

We are going to speak of the principle of focus and of the principle of context. We will take the principle of focus first.

[THE PRINCIPLE OF FOCUS]

By the principle of the focus is meant that aspect of the judgment which constitutes its logical particularity, that which Bradley discusses as the "this" (not the "thisness" which is the content of the "this"), its uniqueness, its particularity in experience -- the fact that it is immediately experienced or presented and as such occupies a position which is absolutely its own and for which no idea can be a substitute. This is the difference between feeling a fire and thinking a fire. It is a restatement of that which is "given" or "taken as given", it is the same as Kant's "given manifold."

The point to be made here is that particularity is practical, is teleological in its basis and in its

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3. The title of this article by Mead is "Suggestions Towards a Theory of the Philosophical Disciplines." Consult pp. 1-17 of the Philosophical Review, Vol. 9 (1900).

reference. Sensation, in other words, simply as sensation (i.e., apart from reaction, response), cannot supply particularity, cannot give us that unique distinction and position in experience which we have in this immediate feeling and that which we indicate by "this." "This" is, of course, essentially demonstrative in character. As logicians all point out (but do not consistently adhere to), the this, the here, the now, all involve pointing. Anything and everything is "this." It is only the motor reaction as expressed in the pointing (for example in the gesture, in the direction of the eye, of the finger, etc.) which really realizes, particularized, and constitutes the "this." Sensation merely as content, as quality, is universal, rather than particular. Or rather, if sensation were only the content or quality, there would be nothing to distinguish it. Locke's simple idea or sensation (say of red) which he means to be particular, is exactly the same as his general idea of redness. What he calls the simple idea (sensation) of red eliminates from it all motor, reactive, responsive factors. There is nothing to differentiate that from the abstract idea of redness in general. There is nothing to mark it off as unique, nothing to discriminate it excepting as you think of it as that to which I must react.

The sense of compulsion which accompanies the particularity, the "this" of the material presented, is the compulsion of attention, that which we must look after, react to, that which defines and fixes the direction in which we must

attend, respond, if we are going to meet the difficulty and reconstruct our experience.

This is simply a further case of the fact that the subject is constructed as selected with reference to efficacy in solving the problem. It is the reaction which selects, which focuses.

We may make a psychological excursus here. There would be no difficulty in showing that there is no discrimination at all save through reaction. The sensory side of the reflex arc, apart from the reactions which in the past it has called out and now tends to call out, would never discriminate itself. That it is discriminated means that it has to be attended to in a certain way, that it calls out a certain reaction of the organism.

For the phrase, then, about the contact <u>with</u> reality <u>through</u> sense, or encountering reality <u>in</u> sense, as constituting the particularity of the subject, I substitute rather the location of the point of stress, the problematic point in the reconstruction. It is this which constitutes particularity. The this, the here, and the now are not fixed by the external presentation or by bare contact or encounter as if some reality beyond were somehow erupting into our consciousness at this particular point. But the now and the here are the necessary focus of the direction of attention, of response, of reaction, of that which has got to be looked out for, cared for first in order that we may go ahead and deal with the other elements of the situation or difficulty.

It is that point of stress, that problematic point, as determining the next act, as controlling the immediately succeeding phases of consciousness, which constitutes what we call the here and the now and the this--which taken in their fullness and in their relations to each other constitute particularity. It is the focusing of experience in the point of greatest stress and greatest needed attention which constitutes particularity.

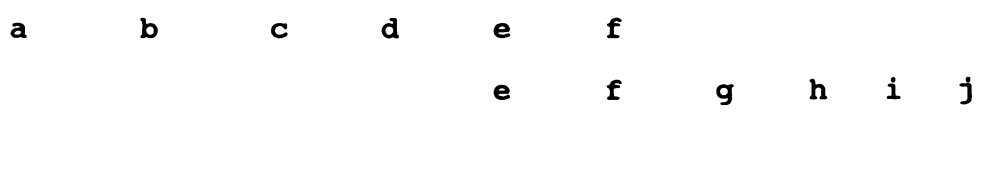
We get on this theory a basis for the organic connection between the fact of sensation and the content of sensation. To put it from this point of view of particularity, this basis (the here, now, this) is not a particular mode of contact which happens to cover a certain portion of experience. It is the whole experience, the whole system, at a particular point of its operation (of its stress) or at a particular point of its manifestation.

You recall in Bradley the point that is raised regarding the difficulty of the passage from the so called analytic to the synthetic judgments of sense.

This is black. (simple analytic judgment of sense: "black" is given in sensation)	This is a blackboard. (synthetic judgment of sense, involving an inference: more idealized, constructed, than is the simple predicate "black")
The ground is hard.	It snowed yesterday.

The point which Bradley makes is that the blackboard can, after all, be connected with the "black" and the "black" is itself connected with the "this" and so the

predicate of the blackboard comes to be referred to reality. There are certain elements in the idea "snowed yesterday" which can be identified with what is immediately present.



Bosanquet says that the this, the here, and the now are all continuous, that we never assert anything merely of the this, the here, the now. We do not assert the "snow" merely of the here because the here of the snow is continuous with other heres. Through this continuity of the presented with what is not presented we get a connecting of judgments of what is here and now with what is not here and now. In this way we can make a synthetic judgment. Bosanquet says that there is something in the given which extends into and is continuous with what is beyond the given.

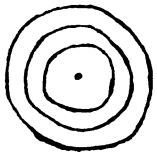
Now the point of both these views, either that of the community of elements (Bradley) or that of the continuity of the this and the now (Bosanquet), is that both seem to identify the apparent subject simply with a point of reality. What we have here in the subject, according to these views, is a certain amount of reality. You scoop up a little bit of reality, as it were. Your net is short, but you can get a

certain portion of reality into it. Through this little bit of reality which you get in the this, the here and the now, we can go ahead and get, indirectly at least, interrelationships with the larger portions of reality which lie beyond. That development of the concept of the relation of reality to the particular makes particularity essentially a restrictive thing. We have got this little bit, but no more. It is particularity with the emphasis on the part. It is the partial, sectional, limited character of this kind of particularity that I object to. The view is essentially a quantitative one and a static one: quantitative in the sense that it is the part that makes the particularity instead of being the whole business, static because it is just the limits which mark this bit off. Sensation, according to this view, is restrictive, a sign or emblem of our fixed finitude. A perfect consciousness would not have this limitation. There would be no here, this, now, for an absolute intelligence. The now would be an eternal now. The this and the here would be everything and everywhere. That is simply saying that they lose their character. They are no longer what we mean by this, here, now. The identity is simply verbal.

According to my view, the this, the here, and the now are not to be conceived primarily as parts of a whole reality, as giving a little bit of reality through a peep-hole, but rather we get a qualitative and dynamic conception: the focus or particularity expresses the whole system with reference to this particular need or particular function. This

may be expressed by a metaphor: A+X=M-N. It would be very inadequate to conceive of the X as simply a part of a larger whole. The X is not one part of the equation considered as a part. Each member in the whole is the whole equation in a particular function or value. The X is the entire equation from the point of view from which it is problematic or doubtful. In concentrating our attention on the X we are dealing with the whole equation as focused or concentrated in a particular aspect. The this, the here and the now bear just that sort of a relation to the whole of reality. It is by thinking <u>of</u> the whole as defined in a particular way--that particular way representing the stress of the system at the point where it is undergoing immediate reconstruction and the point also where initiation arises.

Another illustration would be that of dynamic redistribution in a material system -- the old illustration of the dropping of a pebble in the water.



If you drop a pebble in the center you do not contrast that particular point as a little bit of the whole, but that point or center is the whole defined with reference to a particular function or value. It is the point of distribution, of transfer or redistribution of energy. Taking is statically, you might admire its beauty, etc. But this circular wave expresses or defines the whole system. It is not

merely a part of the whole but is the system as undergoing, involving, redistribution of its relations of kinetic and potential energy, and marks the point in which that system is immediately defined and determined.

What we call sensation (involving both sensation and reaction, the this, here, now) is something which may be conceived in this analogy, as the manifestation of the dynamic of the whole system of reality or experience. That part is not the only part that is changing, but it defines the point of immediate change, and so the sensation defines the immediate difficulty or problem in the reconstruction of experience. It is the focus <u>of</u> a system instead of being merely a static focus <u>in</u> a system. It is the whole experience concentrated with reference to a certain demand and with reference to the way of dealing with that demand. This is what I mean in general by the principle of the focus, as explaining the principle of particularity and the relation existing between particularity and reality. This is all on the logical side.

Let us go only very briefly into the difference between the two views on the metaphysical side. According to the first view, sensation, because it gives us simply the part or section of the larger whole, forever places a negative limit to the thought process. The whole process is compromised from the start to the end. All the methods of thought, science, inference, etc., come in only to extend our knowledge a little, what it can, beyond this little bit or part

of reality. It may succeed a good deal, but you land logically, as Bradley does in his Appearance and Reality, in contradictions and paradoxes. Success is simply measured by the extent to which it can do away with the evil: but thought is essentially pathological. On this theory, we may reduce the diseases from which our attitude to truth is suffering, but after all, there is still that radical disease. It is simply the question of how much of this restriction can be done away with.

On the other theory, the sensation simply defines the whole system as problematic. But the whole system is not merely problematic, it has data, content, material. Your thought processes (inferential, constructive processes) come in not to remove a limit or barrier, but to solve the problem. They are the answer to which the particularization of the experience constitutes the question. It is a relation of the question or problem and the search for an answer or solution, instead of being the matter of a barrier and the effort to escape from some of the limitations which this barrier imposes, without being able ever to remove the barrier itself.

[THE PRINCIPLE OF CONTEXT]

The principle of the context was led up to at the last lecture when I said that the this, the here, and the now, the immediate presentation, represents a whole system

focused, the focus of the system, and as such is determined in and by the system, represents a system at a specific point.

If you go on to consider this focus as a focus of the whole, what is involved in that you have in the idea that I designated by the term context, which expresses the fact that the focus is a function of the whole system, determined by the whole, instead of being merely a part surrounded by other objects or parts.

My point of view is that focus is determined, has its significance, both its existence and its significance, because of the place which it occupies--this is the context. It might be called the idea of relevancy. That is, these two principles of focus and context are the two aspects of a system undergoing reconstruction. The focus representing the immediate aspect of that reconstruction, and the context expressing the conditioning elements upon which the location and movement of the focus depend -- the mediating factors which more or less remotely condition the immediate aspect.

To bring up the matter more concretely, the focus or "this" marks the particular point at which the reconstruction of the system is most obvious, where the break is the greatest, and where the demand for response is the greatest. The position, significance, value of that will depend upon the kind of system within which or out of which it has emerged or appeared, and upon that towards which it is moving, into which it is going to emerge. That is, you have two

limits, the one the previous system, previous habit. The focus has this for its background. Its value is determined by its relevancy. It is not a "this" at large, but a "this" emerging out of this previously harmonious but now disintegrating system -- striving to move on towards a new total system. This principle of the context means that "this" as the subject of the judgment always falls within this reconstruction of a system.

We are apt to be misled by the use of examples in logic, or isolated judgments which, failing to indicate the systematic context, the relevancy, leaves the impression that judgments are shot out of a pistol without relevancy or place in a larger whole or system.

Whether the psychologists are correct or not in holding that there is absolute psychological continuity and that a new sensation is a focus in a continuum, there must be logical continuity in the sense of relevancy. Take the case of the noise of the wagon going by. It is rather hard to show the psychological continuity of that with the factors previously in our experience, but logically it certainly is there. We notice that noise either because of the positive relation which it bears to what we are doing, or because of the negative relation which it bears, as an interruption (i.e., the irrelevancy is simply a case of the application of the principle of relevancy). Suppose a person were to come in the room and say "This is paper." We would wonder what he meant or else think that he was crazy. If you had

been looking for a piece of paper or were expecting a letter, then and then only would the judgment be a judgment in the ordinary sense. That is, every judgment must be motivated. That is what is meant by the context. It has a meaning, a purpose, it must signify something, must be a sign, must point to something else. If we take the situation out of which it has emerged and to which it is pointing we have the conception of the context.

Taking the judgment in the process of its formation, as it really is, as judging, we may use the example of what took place at the convocation in Studebaker Hall in the matter of the fire, and try to trace out the series of successive judgments. First there is simply the perception of people moving to and fro. What are they doing that for? We did not simply say "There are three or four people moving about." But we asked what is the situation of which that moving to and fro is a part. The presented part was simply the running, etc. The context was problematic, as showed by the further questions which arose: What is up? What is going on? Somebody suggested fire. Then the smoke began to appear, and the judgment of "Fire" was accepted for the time being. The "this" got fire as a part of its content. Then "this fire" got something further as a part of the judgment, etc. If you had been in the woods or on the street, the "this fire" would have been differently related in the judgment. What constitutes the "this fire" is that it is a fire, in this situation, in this building full of people, etc. Images

of possible panic, of friends in the audience, the possibility of doing something for them, etc., would color the judgment.

The point is that the moment the subject, the "this," presents itself at all, the search for its meaning, its significance, is a search for an explicit developed sense of the situation, that which gives the interest to the further observation and examination of the "this." That which constitutes it the subject of the judgment is the sense of its context. And as the subject grows in definiteness of meaning, as it gets more and more positive content, it is simply because we are more and more conscious of the context, of the situation of which it is a part. With reference to the whole of the judgment it is the function of the subject to make particularity, the focus, explicit, while the context is implicit, subordinated, not interested in it as context in general, but as it gives meaning to the focus or subject of the judgment. The factor of the focus is explicit and the context is implicit in the subject. In the predicate the reverse is the case. It is the function of the predicate to make the context explicit while the factor of existence is simply subordinated, implied, implicit, merely the basis from which we work in order to get the meaning. In other words, the subject and predicate both express the same reality, but with difference of emphasis. In the subject the emphasis falls on the element of presentation or immediate existence, while in the predicate the reverse is true.

It may be mentioned also in passing that it is the context, the place in a situation or membership in a system which determines universality. Particularity is the "this," the element of immediate presentation, it never has been experienced in the past, and never can be reproduced in the future; it is unique. The universality, being determined by a place in a situation is a matter of framework, or relationship. It is a matter which when brought out in the predicate gives us the universal.

The "this," as "this smoke" or "this disturbance," is particular. It is absolutely here and now. But the scheme of relationship when brought out in the predicate gives us the universal. The scheme of relationship which gave this a meaning was something general: a public meeting is an idea; a panic in a public place, a fire in a theater, the necessity for putting it out--these things are the general which are recurring in our experience. These things are relatively the permanent in our experience. It was because it was located in the whole situation that this particular "this" had the meaning which it had. This particular is determined by the universal even in its particularity. The focus is determined by the context. The place of the particular in the system is determined by the universal.

Going back to the discussion of Bradley as to the relation between the existence and the content of the subject, you will remember that he does not provide any relation between the two. He does not show any organic connection

between the particularity and the universality. But this principle of the focus and the context shows that the particular is what it is through the universal, and vice versa. In the subject these universals are not explicitly brought out. We simply use them for the sake of determining the subject. We do not stop to elaborate all the relations which constitute this fact. They do constitute it or else this function would not have anything particular about it.

Bradley (p.65 [Logic]) says that the thisness belongs to the content, that the thisness is the general character of every space and time; that we may call it particularity, but that such particularity is "after all only a general character...merely ideal." In other words, the fact that a fire is a fire even in the Studebaker building, if it is not localized by this presentation, is only a general character. We have to have what James calls the "tang", the sensation and reaction (response to the sensation) to give the presentation.

Everything that is given to us, says Bradley, is surrounded, immersed, in a context which is not given. That is, there is a more or less mechanical relation between the two. My point of view is that there is not a "this" and then a further detail about and within the "this," but that the "this" is nothing but the bringing to a head, to a point, to a unique or single point, what Bradley calls the thisness.



Bradley



Focus

Dewey

Context

Instead of having two things in a plane, the one lying within the other, it would be like a cone. The base of the cone could be the thisness and the apex of the cone would be the "this." Of course, the cone as a whole, or the formula for the cone, determines both its base (context) and the point (focus).

The "this", the existence, the given, instead of being a part in a vaguer indefinite, partly unknown whole of experience, is the way in which a whole experience strikes us. It is the point we have got to. It is the point we have arrived at in that experience. Take a man who is going on a journey. He has gone 17 miles. He intends to go 25 miles. If you take him in the abstract, you can locate him in a spot on the map with a lot of space around him. But if you take him as a traveller, he is the man who has travelled 17 miles and is about to travel 8 more. You can define the point where he is only from the standpoint of his journey as a whole. The experience at Studebaker Hall was a whole experience of a certain type uppermost at this particular place and time. A period in a cycle of growth of a plant would give the same idea. The reality of the plant is the whole cycle of its growth. It is only in the abstract that it is immersed in and surrounded by such and such things in space

and time. It is the whole cycle of growth taken at a given stage in its development. The experience of fire is a whole system of experience uniquely focused.

There is a whole system of metaphysics involved here. From the point of view of the rationalistic idealist, space and time are always limits, a hindrance of some sort. They mark the partial manifestation or grasp of the Absolute. From the other point of view space and time are necessary and intrinsic. The whole reality is always focused, it is always presenting itself in some uppermost phase of the whole. It is its very nature to specify or particularize itself.

To sum up then, briefly: the system in the first place gives the reason or ground or basis for attention, and thus in that respect determines the focus, what is immediately presented. The only reason for attending here or there or elsewhere is that there is a situation, system, which is to be built up. It is because it is doubtful, problematic, which in giving a basis for attention, determines the focus.

Then on the positive side, it is the system so far as it is constructed, so far as it is not merely problematic, which gives definite content and meaning to the "this", to the immediate presentation. On the side of the predicate it is the fact that the "this" is always a focusing of a whole system depending organically upon its circumstances, which constitutes its disjunctive character.

This running about ? ?	(Questioning attitude)
Fire (smoke, running, man carrying a bucket of water, etc.)	(It is "that", but "what?") (The presentation is enlarged)

At every point the question mark (?) is not a bare question mark, but there are certain preferred suggestion that come to mind. We would not look for the same suggestions in one situation that we would in another. There is a certain order or presumptions or preferences which we follow. That we look within a certain system of presumptions first for our alternatives is what is meant by disjunction. We do not, of course, always do this consciously.

As to the effect on the subject, the detail in space and time that Bradley speaks of, where does this come from? The this (here, now): how big is the here? How much, how little, does the now take in? There is no answer to this question in the abstract. It is practically determined in each situation for itself. I am standing at one end of the room in the case of the fire. "Here", then, is one end of the room, and that means the whole room, for an end of a room implies a whole room. I see a man running at the other end of the room. That is the "there." With every "here" there necessarily goes another possible "here" (actually it is a "there", but ideally it is also a "here"). We are constantly projecting ourselves from the here to the there. Shall I go into that smaller room, or go to the street to escape the fire? Which way shall the focus move? Shall our

experience focus here or there or there? The "there" is of value only as a possible "here." I cannot locate any "here" except by possible reference to other "heres." The more definite "here" becomes, the more definite other "heres" (or "theres") become. The fact that the focus is a focus in a context, and that these phases of the context have been and some of them at least will become foci, shows that the "this" can be grasped only as "thisness," only as a manifold in space and time. This is working it out for the "here." The same is true of the "now." The now is the system as focused, but we give meaning to that focus as related to other foci, actual and anticipated. That is the same thing on the side of the subject that the disjunctive character is on the side of the predicate. It is the reaction of the system into the parts. Putting it psychologically, why is it that we never can think of here without thinking of there, of now without then? The answer is the practical or teleological one. The real thing that we are thinking of is a system of action, and we have to locate, define, each part of that total act in relation to every other. We have to have coordination, adjustment, adaptation, and that manifoldness is simply the recognition of the various factors, parts, which have to be coordinated. The moment you think of yourself as in a room that is on fire, you think of other rooms into which you might enter, or of the outdoors whither you might flee. That placing of one point of space in relation to other points of space stands for one part of a complex act

with reference to other parts of the act: what is the next thing to do, to escape, etc., etc. Bradley (p.65) has no principle for determining how far you shall go in bringing in this external or internal detail. Is that true, or is there always a principle of determination which decides just how far you shall go in that matter of external and internal detail?[4]

4. The lecture is temporarily suspended for the presentation and discussion of student reports. Mr. Bawden and Miss Thompson (probably the Thompson of the Studies) report on Bosanquet. Mr. Moncreiff reports on the classification of judgments. See Appendix B.

[Chapter Six]

[THE PREDICATE OF THE JUDGMENT]

We will take up now the predicate of the judgment. The predicate is ideal or meaning, as over against existence. When highly developed it is called concept. In more popular sense it is called ideas. The distinction between subject and predicate, between existence and meaning, is one which arises through the breaking up of one experience and the construction of a new one. There is no uniform cleavage between existence and idea, but the dichotomy or polarization depends on the particular experience which is constructed. The predicate like the subject has a double aspect: (1) so far as it is interpreted with reference to the dissolving experience, and (2) so far as it is interpreted with reference to the forming experience. On the one side, the predicate is the fact under suspicion, doubted, negative in that sense, a defect; the having of ideas marks the failure to have the facts. On the other hand in its movement it serves as a suggestion or hypothesis which, developed, becomes a method for the development of a new experience. In its prospective reference the idea becomes a principle or law, and thus objective. Take a simple case of judgment arising in practical life and

analyze it so that we can see how the predicate comes to be the meaning.

The first point to be clear about is that both subject and predicate represent the same reality or experience, the same system. They do not represent or present different parts of that system. We can not say that the subject takes out a certain part and the predicate another part, and then that the copula joins them. Both the subject and the predicate are the whole reality, but it is that whole reality presented in a certain light. It is a distinction of aspects, not of portions or elements. The category of aspect is not a mere catch-all for difficulties. There certainly is a problem as to what we mean by calling subject and predicate aspects. We must determine just what we mean by "aspects." In general the term "aspect" is equivalent to functional distinction, distinction of service rendered, of part played. What makes an aspect is what the whole thing is doing. Why this reality has these aspects is an important question.

Suppose a man out hunting in the woods. He sees a bush moving which suggests to him instinctively game. He draws his gun to his shoulder and starts to fire. Then, however, the question comes to him "Is that really game?" There comes in a question. The situation has become doubtful. Does the situation call for firing or for not firing? It calls at least for a temporary arrest of the firing and an investigation. It is that whole situation which presents

itself or represents itself in both subject and predicate. The whole situation has here to be expressed in language by writing hyphens between all words. The primitive languages tend to have a word which brings in all these elements. It is a situation of a man-having-been-about-to shoot-but-having-refrained-from-doing-so-because-certain-ideas-arise-as-to-whether-he-should-or-not-and-he-is-beginning-to-investigate-these-conditions-to-see-whether-he-shall-shoot-or-not. The instinctive dichotomy which arises is that whatever in this complex is certain, assumes one function (that of the subject) simply by reason of the fact that it is certain, and whatever is uncertain or problematic assumes another function (that of the predicate). Each exercises a different excitation and a different control or direction. That is the distinction of the subject and the predicate. The subject is that which is taken as given, the presented.

The connection of this with space and time... Space and time (the now and the then) are simply names for the fact that it is given. Space and time are the manner in which the subject is given. That is simply another way of saying that it is "this" always. How far the given as space and time determinations is elaborated, will depend on the nature of the problem, the range and extent of it. This will be a question of the evolution of judgments and in such judgments as the above will scarcely get beyond the mere feeling of the reference to the here and now. There will always be a manifold of thises within the "this" and a

manifold of nows within the "now." One of these is focal and the others are marginal, to use Herrick's term, or, in James' terms, the one is explicit and the other is implicit. We could not have simply one without having the manifold. The hunter as he has gone along has had some consciousness of where he was going, and when he stops he locates himself to a certain degree. You cannot have a spot in space or a moment in time without having position, location, and without having the moment dated. This need not be very accurate. As the man gets there to shoot there are at least two thises -- where he is and where the game is. One or the other may be focal. The stress will pass from the one to the other. It may be objected that if the one "this" is focal, then it is actual and the other's ideal. But I say that they are all always more than ideal, always actual. In other words, there is at least a partial motor reaction directed to any one of this manifold that makes up the given content of space and time. A man may be defining the bush, say, by fixating it with his eye, but if he is going to take a shot he will equally be locating where he is by the equilibriating of his whole body. Or take the case of the fire, the focal "this" may be where he sees the smoke, and that has at the same time certain kinaesthetic sensations which define to him the position of his own body, which represent a tendency to run either toward the fire to put it out or away from it to escape. The focal "this" is not the only actual, and all the other ideal, thises. The motor

imagery is not absolutely concentrated. There are a number of motor responses going on. One of these may be the chief or focal one, but it is not the only one. There are other counteracting tendencies. There is a motor tension and the points at which each of these would discharge if it became the sole and only one constitute the factors of the manifold, of the presented. This will apply as well to the case of time. The present now is a manifold of nows as the here is a manifold of heres.

Something then must be certain. The situation as a whole cannot be merely and only problematic. A man may doubt whether that is game, or the wind, or a friend, but he does not doubt that it is a bush, or that it is something. It may be a vague something, but something which has a location in time and space. He does not doubt that he is there with a gun to shoot, or, if he is dreaming, he does not doubt that he is. If you imagine a person panic-stricken by the fire, he has lost his head as we say. There is nothing certain there. But there is nothing problematic there either. There is no judgment at all. There is just as little doubt or problem as there is fact or certainty. The man has passed not only out of the practical attitude but out of the judging attitude as well. He has simply gone to pieces. There can be no such thing as an absolutely indeterminate problem. It must have some point to it. Its limits may be of a very general character, but as a problem it must have a certain point to it, a certain aim. Just to the degree that

the point or bearing of the problem is definite, just in that degree the subject is concretely determined or given or assumed.

The predicate, then, is this same experience, not as sure, assured, or certain, but as problematic, as uncertain. The question is whether it is a situation which calls for the shooting or for the not shooting. There is no doubt that there is a situation there, a man with a gun and a bush, but what the whole is of which they are parts or elements is uncertain or problematic. This is the problem which has to be resolved, and as such, the predicate is the whole situation as uncertain.

It is because of the conflict between different modes of reaction that the doubt arises and hence the problem. It is the question with the man as to whether to shoot or not to shoot. It is in order to select, to get a basis for action, that he begins to think. The first forms of thinking are of the deliberative type, thinking with reference to choice or decision, due to conflict of desires or of possible reactions to a desire. That, then, is what the idea is, a situation as problematic. The idea cannot be distinguished simply as the complex or composite as over against the elementary or simple. Nor is it one order of existence set over against another order of existence. Any fact becomes an idea the moment that fact is suspected. The idea is a fact which has been brought under suspicion and arrested -- but as yet untried. The problem may be very

indefinite, general, but it can never be merely indefinite or indeterminate. There is no such thing as a mere question at large, just because it does go back to some choice, to some reaction finally. It tends always to take a particular selected form. Of course, in the case of the hunter it is relatively definite, but you can easily imagine cases in which it would be much more indefinite. Otherwise you could never get over from a mere question to a definite question. This situation as problematic, as doubtful, <u>is</u> the idea, the meaning. Because in the judgment the existence and the meaning are distinguished from each other we do not have to assume that therefore they are separate before the judging process begins. Until conscious choice, decision, was necessary, there was no distinction between existence and meaning at all. It is a case of the psychological fallacy to read back this distinction between existence as the given and meaning as the doubtful or problematic into the situation or to project it forward into the act to which the judgment will finally lead. Existence and meaning are two statements of one and the same identical fact. As the subject, so the predicate presents itself in a double light. The subject presents itself as (1) that concerning which the problem arises, that which presents the difficulty, and (2) as the means or basis. Take the hunter. (1) If the bush had not moved we would not have to judge. It is because the bush has move in just this particular way that the problem is located. That is the negative aspect. (2) On the other hand,

as certain, the subject is the working material or basis on which the solution may be worked out. The meaning will be developed by the closest attention to this presented, this immediately presented material. The subject seems to locate the problem and to present the raw material for the solution of the problem. Now take the predicate. (1) The predicate is nothing but the question. This is the negative aspect. Just as the subject locates the problem, so the predicate <u>is</u> the problem. But it never is a mere question, but (2) a suggestion with reference to its own solution. That is the positive aspect of the predicate. The predicate is a beginning choice, a tentative choice, a selection, a suggestion. The idea or predicate always has a double aspect. It is (1) a question, and (2) a suggestion. The scientist brings this out. As a <u>working</u> hypothesis it is doubtful, problematic. As a working <u>hypothesis</u> it is a suggestion. We have the negative side of uncertainty and the positive side of suggestion toward or for a new construction of experience.

The predicate of the judgment then serves in its development both to define the problem, state what kind of a problem it is, and then to hold the thing within limits, within certain bounds, and also to lead toward a solution of the problem. It might be said that the idea is the fact in solution. If you think of solution as dissolution you get the idea as uncertain, as problematic. If you think of it as resolution, in the process of being solved, then you have it

as positive assistance or suggestion. We get here at least a descriptive, historical, answer to the question as to what the value is of the thinking process. That is, is the practical difficulty which gives rise to the thinking simply a limitation, defect, or lack, or is it not? However this may be ontologically or ultimately, historically it is more than a sign of mere defect. The process of thinking brings to consciousness new values, makes meanings apparent that were not there before. And so when we get a new experience it is not simply the old experience labeled with certainty, but the very process of examination has introduced new meaning, there is a deepening, an enriching and extension of experience. The function of doubt as the stimulus to the suggestion leads to it by deepening in conscious value. The consciousness of value, of meaning in experience is conditioned by the degree to which doubts have been entertained and suggestions have been assimilated and reconstructed and made concrete in the experience again.

This suggests a further point about the predicate of the judgment, that the predicate or idea is rather that <u>through</u> which the subject is qualified than the qualification. When the next experience is built up, then, it may be said that the predicate qualifies the subject. But so long as there is any tension between the subject and the predicate in the judgment, the predicate is rather that through which the subject is qualified. The predicate is a standpoint and a method rather than a content or material

which can be directly applied to the subject. That idea is helpful in enabling us to appreciate what we mean by the spiritual or mental over against the material or physical. Take "This is hot." The predicate "hot" as "hot" is in a certain sense ideal (no matter how sensuous it is). You can not point it out in space and time. It is not a thing, matter. As "hot" it is not matter and is not located in time and space, in your head or in your fingernail. It is referred to the finger, you say. It is in your mind, you say. But there, "in" is not taken in a spatial sense. This is one of the problems of past philosophy, as to how a thing can be subjective and yet be real, as to where the reality of the mental or spiritual comes is. The predicate is not a quality which can be attached to the subject. If it were it would have to be homogeneous with the subject, a decaying sensation (Locke), or a thin subtle matter (Stoics). But if you take it as the standpoint which gives its value, significance, import, which gives the place in conscious life to the subject, and which serves as the method for valuing and interpreting that presented material, we see how it can be real and yet not be real in the material or physical sense. The predicate is the method for determining or anticipating, planning for, the reaction to the subject. The development of this brings up metaphysical questions. I say that my theory is not identical with Subjective Idealism. I do not say that the ideal is the real, but that the mental is the most general term for the predicate

of the judgment and the physical or material is the most general name for the subject of the judgment. The interaction of these two sub-functions in the judgment gives us reality. The subject brings home to us the material. The predicate brings home our interest or standpoint in dealing with this material.

[THE PSYCHOLOGY OF THE PREDICATE]

A word on the psychology of the predicate. The predicate is the counterpart of the intellectual formulation of what on the practical side we term habit. That is, if we take a non-logical experience out of which and with reference to which the intellectual attitude grows, we find that it naturally presents itself in a twofold aspect: (1) a series of individual acts, which with reference to the whole experience we call steps in the act, and (2) the adaptation of these acts to each other, the serial order in which one stimulates or calls into play the next act. That which corresponds to particular acts is the subject. When they are reflected over into the intellectual form you get the subject. But when the adaptation changes from the practical working thing to a problem, when we reflect as to how we shall adapt so as to get a new experience, we have the image, which is the psychological representative of the predicate. What the habit does practically in binding the

various parts of the total experience into each other is done by the image when that act becomes a problem, a matter of doubt, reflected upon. Its function, making allowance for the change from the practical to the reflective attitude, is the same as the habit in the practical attitude. Taking the predicate in its most highly developed form, it is the concept. It really represents the habit so far as the habit is translated into a conscious method. It is the habit become a conscious technique, so to speak, instead of a more or less instinctive because customary mode of procedure. The image is never a mere copy of a previous experience. There is a tendency, which Bradley has criticized in the chapter on association of ideas, to treat the image as if it were a sort of ghost of a previous experience stored away somewhere. I have an experience of a cat and I have an image of the cat stored away in my mind. Certain writers even on the physiological side speak of the storing up of images in the brain, as if it were a mere impress or copy left by the original experience. Of course, what is left on the physical side is a certain modification of paths of discharge and of modes of nutrition. There is nothing stored up but the existing structure as a system of reciprocal discharges and communications or transfers of energy is modified. Now the image would represent a certain amount of friction or disturbance in this regular organized system of paths of discharge, of communication, of transfer; a friction or disturbance which throws the thing as a whole, so to speak,

out of gear and on account of which a certain phase of this system is presented in consciousness. As long as the system actuates itself, functions successfully, there will be no image, but simply the continued habit. As long as the registration (modification of structure) is effective, there is no image. The image is never a copy of a previous habit, but it is an adaptation of that habit, a reconstruction, not an accomplished reconstruction, but it is the habit reconstructing, adapting, in a transitional stage between the previous habit and the formation of a new complete adaptation which will take the place of the one which has failed in some emergency to function properly. This gives a way and the only way, psychologically, to unify the so-called phases of imagination: the mechanical imagination, the practical or inventive imagination, and the aesthetic or creative imagination. It is all creative to a certain extent. It is reconstructive, not simply taking old experiences and piecing them together. As long as experience is adequate it never presents itself in imagination at all. It is only as it is modified that there is any image. It is simply a matter of how far the reconstruction goes, and subservient to what ends this reconstruction takes place, e.g., in scientific discovery. We get here the logical phase of imagination. Under the influence of emotion we get the aesthetic imagination. In any case the imagination is creative in the modification of a new experience which goes beyond anything which is found in past experience. It is

that modification with reference to what is still to come that makes the habit into an image. The image is always both a reminder and a prophecy. It is not a copy of the past, but a reminder of the past. At the same time it is a presentiment, forecast, surmise, prophecy of what there may be in the future. So much for the psychology of the matter.

The predicate represents the phase of identity in the judgment. It represents the synthetic function or factor. It does the same thing in the judgment that habit does in practical action. Identity is the quality or value which pervades all particular, discrete, differentiated elements which are found in the subject, in the "this," and which binds them into one whole. Or if "binding" is too mechanical a term it is the unifying quality which ramifies through them all, pervades them all, persists through them all, and makes the various elements of experience into a single whole. I say "This is typhoid fever." The "this" is a whole lot of discrete things (a certain odor, a certain temperature, a certain color or pallor, certain appearances in the excreta, certain bacilli in the blood, etc.). Here you have simply a manifold which by itself would never be a judgment. But the moment you say "This is typhoid fever," the judgment welds them into a whole. The elements are cooperative. Each factor reinforces every other. More ultimately the question arises as to how there can be

identity and difference. But we can easily illustrate what we mean by it. It is clear that any judgment involves identity in difference or difference in identity. All judgment is both analytic and synthetic. In the subject the differences are presented. Identity is found in the predicate which unifies these difference. The difficulties about identity and difference are eased up a great deal by bearing in mind that both subject and predicate represent the same total experience, presenting it in different aspects. If we ever had differences by themselves, then of course we never could see how they could ever get together. This is the difficulty that Kant finds, as to how his manifold was ever to get identified. He has to fall back on a transcendental machinery. On the other hand, if we had a mere identity how could we ever get it to break up into diversity? This is the difficulty that Plato and the Neo-Platonists had, and all forms of the rationalistic school. The fact is that we begin with a system and the differences or particulars represent simply the elements or the resolutions or analyses of that total, of that system, while identity represents the abstraction of that phase of the identity which makes it a system by holding all these elements together. The predicate, expressing the function of identity, serving always to identify, to unify, or synthesize, is always in so far forth universal. It is not first universal, and them performs this unifying function, but its attempt or success in performing this function

constitutes or is its universality. It is not universal per se, but in the sense of serving to constitute a significant totality out of the elements, parts, things, that would otherwise be mere disjecta membra, would otherwise be mutually repellent and indifferent to each other. The old question (so old that it is almost worn out) of realism, conceptualism, and nominalism, comes up here. Realism in logic is the attempt to define the universality of the idea in some existence. The difficulties that this gave rise to led to its final rejection. Conceptualism, which is generally accepted as a satisfactory working compromise, has logically all the vices of realism and none of its virtues. It holds that the idea is universal as an existence, that ideas are universal while things are particular. It holds to subjective existence while denying objective existence. It has none of the virtues of realism, for what realism was attempting to do was to formulate order in the objective world. When conceptualism comes in the objective world becomes a mere chaos, a mere heap of particulars. Conceptualism does not explain how the universal could have objective validity. Nominalism lends itself easily to an interpretation which is both psychologically feasible and scientifically speaking satisfactory, enabling us to get some account of objective universality, of law, of order. The difficulty of this conception historically was that it still admitted that an idea as an existence could be universal, e.g., triangularity in general or in the abstract

is as monstrous as a horse at large which is no particular kind of horse. The nominalists were right in insisting that ideas are just as particular as any things, and must have as existences a certain concrete particularity attaching to them. So far as they transformed their point of view into a negative thing and denied the whole concept of universality as such, they fell into error. Question whether the heart of nominalism, limiting universals to names only, was simply the form which the psychical existence generally takes rather than the only type of it. In suggesting the fact that the idea or psychical existence does so as a symbol or through its symbolic quality, it was on the right track. There is a sense in which all images are forms of language; they are not what they are in themselves, but stand for something else. That is the solution of the old question whether thought is possible without language or not. If you follow out any detailed discussion such as that between Max Muller and others a few years ago, the dispute finally resolves itself into a dispute over words. Galton said that when he thought of a dog he did not have any word "dog" before his mind, but felt among other things certain motor sensations (like those of springing away from the dog's bite). Whether you call that language or not is a matter of terminology. It is an experience which is taken, not for what it is in itself, but in its vicarious capacity, for what it can accomplish for us in some other experience. Words have proved the most effective sort of instruments,

but they represent simply a part of the great class of experiences as symbolic. There is no difference in principle between visual and auditory or kinesthetic imagery in this connection. Taken as an existence (as the psychologist takes it), every thought is particular, as sensation or feeling of some sort or as an image. What constitutes its universality is not that there are some ideas which are universal, but it is simply the use to which an idea is put. When it is taken as controlling and suggesting and stimulating other images, then it is a concept. It may be more or less inchoate, but it is conceptual. Many psychologists speak of images as if they were particular and of concepts as if they were general or universal, and speak of the concept as a composite image. But a composite photograph is just as particular. A composite photograph of 100 people is simply the 101st photograph. But its generality lies entirely on the side of its function, not in any sense of the side of its structure or existence. It is universal in its application, in its power to project itself into what would otherwise be a lot of disconnected and discrete experiences and to combine them into what may be grasped as a whole experience.

There is another phase of the predicate besides its universality -- its abstraction. According to the empiricist and many others the idea as abstract is simply a part of some previous experience which has been torn apart from its surroundings, so to speak, dissevered and set up to do business by itself though it really has no existence by

itself. A great deal of Bradley's discussion about abstraction is vitiated by his adoption of this empirical theory of abstraction, which makes it simply the departure from the total experience. Two questions arise. Since all thinking proceeds through abstraction must it not represent a departure from reality? So the empiricists have concluded. Thinking is a process of setting up of mental artifacts, constructs, which are purely mental. Therefore thinking, for them, always represents a departure from full, real, genuine experience. The question comes up why anybody should do this, which involves taking away from reality. The only answer given is that it is a matter of convenience, an expedient or device for memory, etc. But every scientific investigator supposes that his work is taking him in some sense toward reality and not away from reality. It is an abstraction if you simply compare it in a retrospective way, comparing it with some fuller experience which has preceded it. Abstraction is not a mere taking out of mere part or portion. What abstraction represents is not the mere external comparison of a lot of individuals, but the failure of one of those individuals. Instead then of being contrasted with some individual which has preceded, its very appearance is the failure of that individual to maintain itself. What the empirical logic fails to notice is what I call the negative stimulus to thinking, because of reality slipping away from us. It is not that we have got reality and then go on to add more, but that not losing our hold on

reality, we take all the reality we have got left. This is the abstraction--the handle. On the functional side the abstraction represents a method for controlling the construction of a new experience. It is in that functional service which it renders us that the final justification of abstraction is to be found, just as its historical necessity is found in the breaking down of some previous statement of reality. We do not abstract from reality. Reality abstracts itself from us, draws away from us, gets away from us. The abstraction is all that we have left, it is the representative which reality leaves behind it which we can treat as if it were reality until we can get reality again.

One point more before going to the question of the copula, and that is the objection brought up by Bradley in his chapter on "Thought and Reality" in his Appearance and Reality. The point Bradley makes is that it is in its meaning and not in its existence that the idea or predicate operates, that the process of thinking always involves a tearing apart of existence from meaning, not in the sense that existence is in the subject and meaning in the predicate, but that the real predicate is in itself a union of existence and meaning, and that in thinking we ignore the existence and use only the meaning. This involves the neglect or ignoring of a certain portion of reality, and therefore it can never be good to give us reality again. If I say "This is hot," "hot" though there used as the predicate of the judgment is in its full meaning my

individual experience. That predicate and every predicate is in a certain sense mine. If we take more abstract scientific judgments the reference to me is not so evident as it is in this judgment. But even if I say "This is square," after all it is my square, so to speak, or else it has no meaning at all to me. So about gravitation or the stellar system. They are immediate experiences of mine just as much as the subject of the judgment is. Is this to be ignored and if so has the judgment validity? That is the problem. The reason Bradley says that this existence aspect of the predicate is ignored is that we mean to say that "This is hot," not simply that it is hot to me, but hot to any and every normal person. So that on the face of it there is an ignoring of this "mine" phase, this existence aspect of the predicate. The question is, What right have we to do it, and does it come back into the judgment at any later period? The question as brought up by Bradley is a metaphysical one, affecting the ultimate value of the thought process in relation to reality itself. But it has a more immediate logical significance. As a logical question it takes this form: Does the reference to the self, to me, to the "mine" phase of the predicate, have any logical significance, or is it simply a brute residuum that is left over after the logical function is adequate and exhaustive? Mr. Bradley bases his point on the distinction between content and existence, that it is as a psychical existence that the idea is mine, while as meaning or significance it is objective or

universal in its reference. Now we have already discussed this question on the basis of Bosanquet. That will help us to clear up the question. What is the distinction between content and image? If I say "This is hot," that "hot" seems to have a double reference. As a quality of the "this" it is objectified. The very fact that it is asserted means some kind of objective existential union. At the same time "hot" is my experience. It has got to be mine as quality, as value. The question is as to the interpretation of that twofold reference. Is it true as Bradley assumes that only the objective side has logical significance and the other is logically left out of the account? The point was made the other day that you might deal with the content as a whole or with the change of content, or that all function involves change of content. Now the predicate, the idea, is in the necessity of the case a changing content. The very fact that we are engaged in judging means that we are after an adequate concept and when that is reached the judgment as such terminates. Every idea that is taken, being hypothetical, is tentative or experimental, a guess, a surmise, a view of the fact which is taken in order to clear up the fact. It is its very nature to modify itself until it reaches its most adequate form. If, then, it is the very nature of the predicate to change, therefore the content is not something fixed, but it changes in and through the judging. Here we get a point of view for criticizing Bradley. Now we may make a distinction if we please between

the content and the change, though that is a more or less arbitrary distinction since it is a change of content. We may take the content as momentarily fixed or arrested. We may take the content that has been arrived at on the one hand, and on the other hand consider the whole process of change. There we get the real equivalence of what Mr. Bradley has completely divorced. An account of the changes which take place would be simply an account of the mechanism by which the idea realizes itself, by which an adequate mode of interpretation is built up. We can fix our attention exclusively on that mechanism and then we get the psychological point of view and get the idea of a stream or series of modifications of consciousness, and if we do that we have psychology. But the question here is whether this phase has not a logical significance as well. I say that the copula really expresses that phase of the predicate. That is, if we make this reflective abstraction and on the one hand attempt a statement of the content which has been reached, a cross section of the status of the judgment at any given time, then the predicate gives us this tendency to change, its modification of the subject and its modification by the subject, and that change is what constitutes the copula. So instead of its being true that this phase of the experience is ignored in the judgment, it is true that it is absolutely essential to the judgment as a logical process, being what in reflective consideration would appear as the copula of the judgment. Or, to go back to the illustration,

"This is hot," it is the feeling side, the so called subjective or psychical side, which constitutes the basis in which we are interested, that we are concerned with, the "this." If it were not for this personal interest then there would not be anything to hold the attention to the "this," to select and determine this "this" from any other possible this. That phase then instead of being ignored is operating all the time as the standpoint with reference to which the subject is being determined. That is what is meant by calling it the copula of the judgment, the determination of the subject of the judgment through the predicate. The reflective process comes in because we have not an adequate stimulus and so we have no adequate response. But continued responses are directed at the stimulus in order to make it over into an adequate one. The psychical side is really this continued reaction directed at and upon the stimulus in order to bring it into shape, into a full and definite response in action by which a further experience takes place. This constitutes the impulse which has been set free but is not yet organized and which therefore appears as simply impulsive, as reactionary, in quality.

The full predicate, the full content of the predicate, is recognized to be both value and to be at the same time incomplete value which is projecting itself, which is tentative, experimental in an active dynamic sense. That, if we abstract it, is the impulse. Now we can reflect on the image and its place in the whole series or we can fix

attention on the motor quality of the image, its ability to call up other images, and that is also what we would call the impulse. So this factor of self reference, immediacy, instead of being shoved out, is that which keeps the logical function developing. In other words, if the idea were mere meaning, mere content, even logically speaking, it could not operate. An abstraction cannot operate, effect anything. Hence there is a tendency of these writers (represented by Bradley) to fall back on some metaphor to get in this dynamic side. The content is never mere content. It is always an operative dynamic meaning, and hence in itself an abstraction. A person looking off at the horizon says "That is the sun coming up." Bradley would say that this does not mean simply a psychical experience, an image of mine, in my head only. I do not mean that my idea of the sun goes around my idea of the earth. But instead of the psychical being a mere accidental attachment or external necessity, as Bradley assumes here, it rather indicates the actual dynamic character of the meaning. It is a meaning which is striving to take its proper place in the world of experience, attempting to build itself up as a meaning, as a part of reality. This phase is not logically irrelevant, as Bradley and others maintain. Logically speaking, it is what we call the copula, and this means that the predicate is taken as a real predicate. It is the process, so to speak, of the abstract idea, that process being necessary to constitute meaning at all. Instead of falling out in the conclusion of

the judgment, it is completed there and reappears in its full manifestation. The judgment as a logical process always represents a transfer, transition, remaking, going from one to another, process of reconstruction. In this process of transition it is true that the subjective phase does not appear as part of the content. So far I agree with Bradley. As content this immediate side of the judgment is ignored in the judgment. It appears not on the side of the content but of the act, the changing content. But so far as the judgment succeeds, it reappears as a part of the content, not as a part of the logical content, but as a part of the value or significance of the experience. Suppose that it is a blacksmith who sees that it is just "hot" enough. So far as this judgment completes itself, the thing assumes another form. He strikes the iron. This activity is now unified, fused, with the content. There is no longer any distinction between content and the process or activity. The act of striking is no more objective than it is subjective and no more subjective than objective. You get a unified phase of experience. The act, the copula, passes over into the experience just as much as the logical content itself. When we take such a judgment as "This is hot," the full bearing of the proposition does not come out. In some scientific judgment this would be seen more clearly. In such a case the real value of the judgment only appears in the enrichment which such a judgment gives to the concrete experience. Its

final significance is in its enrichment or facilitation of some concrete experience.

Take an economic analogy. The process of manufacture, involving great division of labor, the process of transfer, etc., all that is like the judgment in the process of forming. All that is finally relative to some act of concrete consumption, is relative to and occurs as an element in some final personal appropriation or appreciation. If you stop short of that, the whole intermediate process would be abstract, an abstraction. Here we have got back to the question of what the categorical phase of the judgment really is. So far from being able to keep out the mind side as logically irrelevant, it is precisely that phase of it which keeps the judgment within the categorical sphere. The only thing that is completely and finally categorical is the final act of experience itself, e.g., the blacksmith hitting the iron. Before or until he acts the judgment is hypothetical. Nevertheless it still retains the categorical element which is continually increasing, because the meaning exists not merely as an object to look at, but as a process, as operative, and that tendency toward a real experience is a categorical thing.

There is a continual tendency to pass over into action. Every image or idea is a motor one. The overt completion of that may be mediated and transferred and delayed, so that you would not recognize it as the same with the original image, but there is always that movement there. It is the

fact that that is there which keeps even the most hypothetical judgment within the categorical sphere. Take an example which Bradley uses: "Whoever trespasses will be punished." This is not categorical in the sense of asserting that anyone does trespass, and yet what value in the judgment would it have if it were merely and only conditional, abstract, hypothetical? If it were not categorical in some sense, it would not differ from the following judgment: "If the other side of the moon is made of green cheese there are a great many blue cows there." The nature of the world (legal institutions, customs or law of the country, say) is such that if anyone trespasses he will be punished. The categorical part is that the world is so and so. But even here, this does not say whether anyone will actually trespass or not, so that you cannot tell whether anyone will be punished or not. This is just as hypothetical as before. Bradley says that the hypothetical judgment indicates a problem that is not yet solved and in that sense the hypothetical judgment is related to our ignorance. But its hypothetical quality is not mere ignorance of those facts. The categorical element is this. That controls every experience of a certain nature that anybody can have, it is continually making itself felt. There is always a certain value which is made what it is because of that statement of conditions. The content is continually modifying and affecting action and in so far forth is categorical. The categorical element is in the effect which that notice has

in keeping a man from trespassing. The fact that the notification operates, inhibits men from trespassing, and thus enters into the constitution of their further experience, is the categorical. The customs of the community, etc., are categorical also, but we do not know that this involves any actual trespassing. But so far as that influences anybody's action it ceases to be merely hypothetical and becomes categorical. The continual development of science in the experimental direction is, then, simply the fuller consciousness of what is involved in the judging, in the scientific process, as such. It is the actual recognition in experience of the fact that the predicate or the meaning is not a fixed idea, but is an idea whose value consists in changes which it brings into experience, in solving problems and introducing unity and order.

It is hard to see how the old logic can really make anything of experiment at all, logically speaking. For Bradley and Bosanquet it is simply a practical device, it is no intrinsic part of the logical process. But on my theory, that the predicate is simply the changing value in the direction of greater unity and harmony, that change of facts, that experimental application of the idea to data in a controlled way, is the logical process itself coming to explicit clear consciousness. It is the copula of the judgment. It is the judgment as copula. It is the determination of the "this" by an idea which at once serves

to clear up and elaborate the "this' and lead to the passage over from its partial hypothetical and partial categorical to its full categorical form. All unification is through experiment. The functional character of the predicate, and its real meaning, is not a content which can be set over against psychical existence, but it is its operation in concrete experience to bring about a new value in experience.[1]

1. The discussion of the predicate of the judgment is followed by class reports on Venn and Mill. Miss Penfield reports on sections of Venn's Empirical Logic and Mill's System of Logic. Mr. Stewart's report concerns Mill's discussion of the nature of propositions. Whether this Mr. Stewart is the "Stuart" of the Studies is an interesting conjecture. Dewey goes on to give a review of the discussion of Mill. See Appendix C.

[Chapter Seven]

DISCUSSION OF THE COPULA

[THE PROBLEM OF THE COPULA]

In taking up the copula it is a noteworthy fact that there is comparatively little said in the logics expressly on this topic. Upon the whole, the distinctive features and significance of the copula have been either ignored or else rather briefly discussed. From one point of view it is very easy to account for that, and indeed there is a certain positive value attaching to that slight discussion. The meagerness of the discussion is due to the fact that it is recognized that the copula is not a distinct function but rather <u>is</u> the judgment <u>qua</u> judgment, <u>is</u> assertion, not a part of the judgment. When Bosanquet and Lotze both say that the copula in the proposition is a <u>mere</u> sign of affirmation, they simply mean that the copula has not any separate existence, is not a separate part or content of the judgment, but is the asserting force, the burden of assertion, which makes the judgment the judgment. It is better to have that fact recognized and have no discussion of the copula than to treat it as a separate subsection of the judgment. The practical result is that the copula is really discussed under

validity of the judgment, in the metaphysical part of the logics (e.g., in Lotze, Hobhouse, etc.). Here the real problems of the copula are discussed: the objective significance of the function of the act of thinking, of the act of asserting. Whether and in what sense assertion transcends the limits of ideas and purely mental content, and whether what is asserted takes hold on the objective world, is the problem. There has nonetheless a serious evil grown up in this connection. It leads by a sort of tacit assumption or unconscious inference to the point of view that the question of the validity of thought, of judging, is a question which can somehow be separated from the questions relating to the particular inherent structure of the judgment. It is virtually assumed that we can discuss and work out all problems from the strictly logical point of view and then have a distinct problem of the objective worth or validity of the judgment. But if it were recognized that the copula, so the speak, is in the judgment and not a relation of the judgment to something outside, but affects every problem that comes up with reference to the judgment, it would be seen that the problems of validity of thinking at large and of the value of any particular thinking or judging are not really two problems but the solution of one is the solution of the other.

In other words, the tendency of nearly all logicians is to treat the copula simply as the question of the combination or connection of the subject and predicate. It is the judging, the asserting itself, the predication, that by

which or through which the subject and predicate are connected with each other. Then it is assumed that aside from that problem there is another problem of the connection of the content of judgment with reality -- the question of the validity of thinking, of knowledge, how the content of the judgment as a whole can be referred to reality. Thus the question of the copula gets a separate treatment from the epistemological problem. But there is really only one question. The question of how the subject and predicate can be connected together is exactly the same question as to how thought can be valid of the real world.

[THE COPULA AS ASSERTIVE OF REALITY]

Earlier in the quarter Bradley's position was mentioned, that everything turns on the value of the copula as the act of asserting itself. We may take up Mill now (p.67 [System of Logic]). Here Mill points out what he calls the ambiguity of the copula. The word "is" means two different things: (1) to exist, and also (2), to be something. If I say Socrates is or was, I mean to assert spatial and temporal existence. If I say Socrates is mortal, there, according to Mill, I do not assert that Socrates exists, but simply that Socrates has the attribute of mortality, that is, he exists as something which is specified by the term "mortal." Then he says that a great deal of useless metaphysics has arisen in the attempt to find something common for the two

meanings of the "is" in the judgment (e.g. the whole realistic fallacy in the medieval ages). The "is" in "The Centaur is a fiction" asserts the denial of the existence of the Centaur, according to Mill. In that passage Mill is asserting that the copula of the judgment is a mere sign of predication. This seems to deny it all chronological objective existence. He makes it a mere mental, formal connective of subject and predicate. But this cannot be reconciled with his doctrine elsewhere, (cf. pp.28-30;73-74), that the judgment is not a mere connection of ideas. Interpreting that statement in terms of these other passages, we simply get this statement; that the existential reference, the assertive value, of the copula does not apply merely to the subject as such. Mill's statement that the copula does not mean existence is correct, if we take it as denying "existence" of the subject of the sentence. The question is whether the further implication which seems to be there, that it does not have anything to do with existence at all, is justifiable.

Take his own illustration: "The Centaur is a fiction." While the "is" cannot be taken as meaning existence in the subject, it does not merely assert the non-existence of the Centaur, but that the Centaur is the kind of existence which is asserted in poetry or myth or legend. As that sort of existence they <u>are</u>, and the question is whether in the judgment the Centaur is not asserted as existent in that particular realm of existence. Mill's own statement in other

cases, where he says that we assert or deny one thing of another thing, may be taken as an offset of the apparent implication here that the copula has no existential force. (Bradley discusses this point in the second chapter of his Logic. He bases his discussion on Herbart, however, not on Mill. Herbart denies that the copula ever asserts existence. It may imply it, but does not expressly assert it. It is an inference of common sense. Cf. Herbart, Einleitung in die Philosophie, section 53. Cf. also Sigwart, p. 95.)

Bosanquet (p.81 [Logic]) says that the separate copula is a fiction, not a separate content. Negatively, that is a valuable remark to make. But Bosanquet himself seems to have after all a somewhat ambiguous notion of what affirmation is, of what the real force of the copula is. In some places he takes the copula simply as connecting S--P as the content of one idea, factors of the ideal content, and says that that ideal content is attached to ultimate reality which is at least partly outside the judgment. The copula which appears is simply the connection of the meaning whole with the meaning in reality, simply asserts the interactions within an idea. That is not the judgment in the full sense. That would come in the further act. Ultimate reality is qualified by meaning (S--P). By reducing the function of the copula to the minimum it is assumed that the function by which the subject and predicate are related to one another is different from the connection between S--P and reality as a whole.

On p. 82 Bosanquet says that the reason the verb, the verbal form, has been adopted in the copula is not that it asserts change or action, but because the verb itself is a complete sentence, and therefore we would naturally expect to find the verb represented. The verb, he says, is a miniature sentence. If all he means is that the copula has the function, the force, of the sentence, that it is that which makes the judgment a judgment, and not a mere concept hung in the air, that is my point of view. If he means that the verb throws any light on the copula, it opens up a further interesting question for discussion, though taken in a certain way it might be treated as the statement of a very important truth. If it is taken to mean that the verb or copula as being that which gives any content the force of judgment, that it thereby reacts upon and affects everything which enters into the judgment, it is true, There is no basis in Bosanquet for telling how he would have this interpreted. You cannot tell whether he means that the verb is a miniature sentence or not. If he did, it would make the copula pervert every factor within the judgment.

This is the fundamentally important problem regarding the copula. Admitting that it is that which makes the judgment a judgment, which conveys the assertive attitude, and hence always means, has, some kind of existential force, tendency, reference-- admitting that, the question is whether the copula is a simple act of asserting through combining factors which are outside the assertion, or whether

the copula, as the function of asserting, affects intimately and intrinsically, qualitatively, that which is connected.

[ASSERTION AS CONNECTION]

According to one view we would have before the mind "snow" and "white," subject and predicate. Those might be there already in question form or in vague aesthetic form. The question is whether they can be combined, or is one content such as to exclude the other. According to one view, that "is" is not something lying outside, it is the miniature sentence, not in an etymological way, but it is the whole force of the judgment. It stamps the whole process with the force of the judgment. It is the entire force of the judgment in a way which extends to and affects everything which enters into it.

Take a descriptive illustration. Take such a proposition or judgment as this: "A got angry when he was struck and struck the man back." There is no "is" in that sentence, no apparent copula. Where is the real copulative significance? In order to bring out the formal copula we must say that A is the man who was struck. He is one of the kind of men who when they are struck get angry and strike back; that is, he is one of that class of men. Have we got to bring the "is" out in that form to find the copula? My view is that it is not a as objective connection in this sense, but that in experiences, that interaction of all the factors of the

content which constitutes it an objective whole.[1] The copula is simply the fact that that combination of words puts before us a single situation. The copula then is simply the fact that all those things make up one experience, one situation. They have not existence outside that situation. The A and B who appear in that situation are only characters in the situation, actors in that particular drama, heroes in that particular story. The anger and the striking back are simply in that situation just as the situation, on the other hand, is the systematized union or totality of all those different elements. The copula would be expressed verbally, not necessarily by the word "is" not by fixing attention on the "s" at the end of the "strikes," but would be expressed rather by a series of hyphens placed between all the words: - - - - - - - - . The terms connected by the hyphens exist only in the situation but they do exist in the situation. The situation is constituted by the interaction of these various things. The copula must have appeared in the active verbal forms (runs, strikes, kills, etc.) before it appeared in the particular form "is." Instead of saying that logically all verbs are elliptical expressions in which "is" is combined with some other term, these must have preceded the term "is," and these terms are dropped in order to express certain more peculiar relations and situations. In

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1.This sentence is confusing. It begins: "My view is that it is not a as objective...." Either the "a" is a typographical error, or it refers to the person called "A" in the previous sentences. On either interpretation, the sentence is awkward and confusing.

all probability such expression as "The fire hurts me" preceded such expressions as "The fire is hot" -- fixing the situation as a whole, as an integral unity. "The fire is hot" is a reflection on that. It defines certain factors within that experience. The "is" is really an abstraction, not the original type of the copula. It serves to isolate and define some special aspect of the connection or relation instead of presenting the situation as a whole. In the older languages not only does the distinction between the verb and the noun disappear, one word tending to become a sentence, but the inflections are of the most complicated kind, not merely of voice (active and passive), of gender and number, not only of agreement in the inflection of the verb with the first, second, or third person, but there is a variation in the verbal form to correspond to every possible relation which the person can have occupied, even the number of persons who were present when the man was struck, whether it was a member of the family who struck him etc., etc. The verb changes its form not merely for distinctions of person and singular and plural, but with a multitude of things which enter into it. If we were familiar with these languages and could take one verbal form of this sort we would have the best illustration that can be got in language of what a real judgment is which binds together into a whole all the parts of that whole. These primitive languages show very high degrees of inflective expressions. In the higher

languages they come to be treated in their abstraction as fixed signs or counters.

These hyphens must be interpreted as verbal and not as substantial. They are acts. These various elements in the situation are bound together by the various ways in which they act or react on each other. The hyphens represent the situation building itself up through the interaction of the various elements upon each other. The judgment at first states or builds up a situation as a whole and the copula as such marks that interaction of the various elements within the whole by which they <u>are</u> that whole. When you come to make that the object of still further doubt and question you will analyze that statement, and in analyzing the statement "I got burned" you say "The stove is hot" or "The coals are still alive." Here the complex interaction fades into the background for the time being. In order to get the full and exact sense of a judgment it becomes necessary to define just these phases of it which do express the subject and the predicate functions, and then to state that the judgment, when thrown into the form where the implications are brought out, would take the form of the "is" instead of being swallowed up in a lot of intransitive verbs.

(About all that Lotze says on the copula is on pp.58 and 61. On p.58 he says that the permanent content appears as subject over against the various or conditional members as predicate. The relation between the two lies in the copula. The implication is there that you have got the subject and

the predicate there already, and the copula simply binds them together. On p.61 he implies that the ideas have their object matters and then the copula expresses the connection. Lotze does not see that the object matters are what they are only in this connection.

Hobhouse (p.164 and index) says that we determine the meaning of the copula from the contents or material with which we are dealing.

Sigwart (pp.93-101) also recognized the objectivity of the copula. It is the objectivity of the connection between the subject and the predicate which is the copula. The meaning of the unity of subject and predicate is the copula, he says. It simply enables the predicate to fulfill the function of a predicate. But, for Sigwart, it seems to affect only the predicate. He does not see that it gives the subject the function of a subject as well. The fundamental difficulty there is: How <u>can</u> the copula have objective validity <u>if</u> it just connects contents which are given independently of it? Is not that a self contradiction? If you say that it connects contents that are already given as contents how can this connection have any but a subjective value? What a strange piece of luck it would be! A sort of pre-established harmony. How can you get over to the conclusion that the subject and predicate are really objectively connected? On the other hand, if you say that it is a real objective connection, are you not bound to say that the subject and predicate are constituted thereby? That is, as was said earlier

in the course, the subject and predicate exist only in the judgment.)

[KANT'S THEORY OF CONNECTION IN THE JUDGMENT]

The point under discussion yesterday was the recognition by a number of modern logicians (Hobhouse, Lotze, Sigwart, Bosanquet) that the copula represents the objective connection of the contents or object matters (Lotze's term) of the subject and predicate. And it was pointed out that that theory represents an advance upon older psychological theories of the judgment because it makes the essence of the judgment consist in assertion of a real or material sort, and not merely a formal associative connection between ideas. The first explicit recognition of this conception of judgment comes from Kant in his Critique of Pure Reason, where he says that he has never been satisfied with the ordinary definition of the judgment. When we say "Body is heavy" we mean to express some objective and necessary connection in the fact itself, between the subject and the predicate, between say "iron" and "heavy." It was Kant also who first formulated the conception that the ultimate subject of the judgment is always perceptual and the predicate always conceptual. He was the first to insist that the subject of the judgment is given in the sense intuition, either of the outer or inner sense, while the predicate always involves categories of the understanding by which the

immediate data of sense is organized. In those two propositions (1) the objective character of the act which constitutes the judgment, and (2) the recognition of the subject of the judgment as immediate given sense manifold and the predicate as thought function, Kant really is the founder of all modern logical theory. It was there that he attempted to unite the truths and avoid the errors of the previous philosophical schools, of the empiricists and rationalists respectively. Kant virtually treats empiricism as true of the subject of the judgment and rationalism as giving a truthful account of the predicate of the judgment. The subject of the judgment being immediate, given, sensuous, is of empirical or <u>a posteriori</u> sort, excepting in so far as even that has to have a space and time arrangement, while the predicate as conceptual, as thought, comes from the understanding (the rationalist side). Kant virtually passes the criticism that the empiricist has taken as constituting knowledge merely one factor or element of it, while the rationalist, on the other hand, has insisted on the objective value of the thought process in itself -- while in matter of fact it can serve only to give meaning to the raw or crude data which are presented in the subject of the judgment.

In one way the problem ever since Kant's time has been to maintain the advance which he made in recognizing the objective or existential character or reference of the judgment, and of this distinction between subject and predicate,

and at the same time escape from the effects of his assumption that the material of the subject and predicate both have existence independent of the judgment, though they have validity only in the judgment. Kant questions previous empiricism and rationalism only so far as the value or validity which they had asserted to sense perception and thinking by itself was concerned, holding that neither could give anything by itself. But he never did question the existence of each of these. He held that there was a material of sense given and thought process existing in and by themselves. But he held merely that they are not valuable by themselves, that they could not make any statement about anything excepting in connection with the material furnished in sensation. Since Kant we have seen the recognition of the necessity of the copula in order to make a real material proposition about anything. Kant always virtually assumed that the material is there all the time, not as objective, as asserted, as belonging to the real world, but still somehow there before the mind as content. The act of the copula simply stamps this material with value, asserts it, makes the predicate a predicate. That is all that it does. It does not add to the content, but simply takes the content that is already there and declares its existential value. Now the question is whether this does not involve an inherent self-contradiction. If we insist on the objective character of the assertion, must we not admit that the act of act of judging helps constitute the subject and predicate as such,

and that its work is not confined simply to connecting them together? If its function is simply connecting together how can its results be assertory in value, unless by some sort of pre-established harmony there are resulting changes to meet these conditions of combination, or that we will not make combinations which are not in accordance with this pre-established harmony?

THE VERB IN THE COPULA

Take again the case, "The blow struck him and made him angry and he struck back." It is forcing the thing to throw this into the form of a judgment where the copula "is" definitely presents itself. It is really the verb as intrinsically connecting all the parts which is the real linguistic counterpart of the copula. You might have two men somewhere else, and one might be angry and another striking, but that which makes this situation what it is is expressed by the transitive verbs, expressing the action of the subject and object upon each other, and the reaction, and so on. The copula is that which holds together, the interactions which bind together all the different elements and make them into a whole. That is, the copula is really to be given the significance of a completely objective process, and is not to be taken as furnishing the bare connection. Historically speaking, there is every reason to consider such forms as that prior to such forms as the "is." It is simply the whole

situation constituted in and by these diversified factors. All these terms would have to be connected together by hyphens. Those hyphens not merely bind the different parts together, but they also hold them apart. They not only serve to bind the elements into a whole, they also serve to distinguish, to hold out clearly before the mind, all the salient, relevant elements which enter into the situation. When we begin to reflect on such a situation and begin to question it in detail, to take each factor in itself and ask how it is that it contributes to the whole, then we get the copula in the reflective form of the "is" and its various modifications. If there is any question about the various elements then we get a series of judgments: "He is a man;" "The other person is a man;" "They are both men;" "It was a heavy blow;" "He was angry;" etc. This is so as to specify the factors each in detail as entering into the whole and to specify in what respect each of these factors contributes to the whole. As the judgment is developed again there would be a tendency to restore the unity in which the distinctive existence of each factor would no longer be specified, but the assurance in these points would be used in reconstructing the experience again, and we would get the narrative or historical judgment again instead of the bare assertative judgment as we have it in the use of the word "is" in its various forms. The more you grasp that judgment as a whole the more will you present to yourself a diversified situation with all its various parts reacting into each other. The

illustration emphasized the point that it is the whole situation with its diversified elements, and with those connections of these diversified elements which makes them into the situation, which is asserted.

[REALITY AS THE SITUATION: THE CONTENT OF JUDGMENT]

There are the synthetic and the analytic phases always there. It is the feeling for this which is represented or misrepresented by Bradley and Bosanquet in their statements that the judgment really refers the S--P as one content to the X, or the unknown reality, or the ultimate reality. Bradley would insist more on its being X and Bosanquet on its being N, but the principle is practically the same in either case -- that the content of the judgment is asserted of reality which does not appear except in spots or streaks in the judgment itself. That is a misrepresentation because the truth is expressed by saying that it is the situation S--P which is asserted as reality. Not that there is a reality and then a mental situation which we concoct and then hitch this onto the ultimate reality behind, but that the very nature of the judgment in asserting S and P, and P of S, is to assert that situation as the reality. It is the interaction of S and P which is asserted as the specific reality. Or, if we get back to ultimate reality, it is simply asserted that ultimate reality assumes this specific determination, takes upon itself, takes into itself as itself, the particular

determination which is represented in this statement. Of course it must be recognized that the interrelation asserted assumes quite a number of different forms or types. The illustration above asserts the interrelation of various persons and events in a whole. Of course, we may have a judgment which simply asserts the interrelation of attributes, not parts. Others assert simply the interrelation of a thing and an attribute, and so on. I may say "This snow is dirty" or "The snow is white." In the former case we assert the unity of what we call a thing with one of its qualities. In the second case we are asserting certain relations among attributes.

"Generous minded persons forgive injuries." This illustration is from Sigwart. Here is asserted simply a certain connection of attributes or relations. Do we really assert a situation here? This does not necessarily assert that there are any generous minded persons or that anybody has been injured. So with Bradley's "Whoever trespasses will be punished." That question as to in what sense a connection of conditions can be asserted as involving a real situation must be taken account of. It must be said that in all these cases we are dealing at least with some kind of a situation, whether that involves a space or time world or not. Certainly, speaking formally, it is exactly the same kind of a judgment. It posits to the mind a situation with differentiated factors and also asserts the interaction of these factors, so that the diversified thing yet constitutes a

system, a situation. If the judgment "Generous minded persons forgive injuries" means anything, it means that you must call up to yourself at least in imagination some sort of a situation. You must present to yourself a person, the possibility of injury, etc. Whatever logical force it has it has as a method for summing up a situation. The only question is how far the two kinds of situation stand on the same level. Is one purely ideal and the other spatial and temporal, or are they both located in the same world and the difference a difference simply of emphasis -- certain things being in the background in one and certain things being in the foreground in the other? Going back to Hobhouse's statement that we can get the significance of the copula only by a study of the content of the proposition, or what connection of contents the copula asserts, while we must accept this as true we are bound to supplement it by the corresponding truth that the kind of assertion found or involved in the copula is what determines the content. It may be taken as true that in order to see what the copula means we must analyze the positive judgment we are dealing with and see what it is asserting. It is not asserting at large, but is asserting this particular content. But on the other side it is equally true that the kind of assertion we are interested in making is what determines as well what form the subject and predicate take, whether they take the form of relations in space and time or the form of abstracted and generalized attributes. There is always some

reason in the thinking process for making an assertion of this kind or that kind, some reason why we make the judgment in this form, "The snow is dirty," or in the form "All snow is white." When we recognize that there is always the same motive or stimulus to be found in the whole process of making and solving the problem which makes us form one judgment rather than another we see that it is just as true that the assertion makes and defines the content as well as the content defining the assertion (copula). This shows that we are here really dealing with two aspects of the whole process. The comprehensive statement is that it is the whole process which determines both the content and the connection of the contents. Each statement is simply an elliptical shorthand expression by which we call attention to the fact that the whole experience determines both the materials which we select and the set of relations into which we throw them. Lotze brings out the latter point very well indeed (in the chapter on judgment).

All men are mortal	A judgments of formal logic
Some metals are liquid	I judgments of formal logic

According to the ordinary way of treating it the difference does not attach to the copula at all but depends simply upon whether we are taking the whole or a part only of the subject. But Lotze rightly assumes at the conclusion that that point of view is superficial, and that the only

way the judgment can convey any information (as a synthetic judgment) is by its meaning that man as man is mortal; a connection of attributes, that man intrinsically has attributes which involve death. On the other hand, the I judgment means simply that metal may assume the form of a liquid. The conditions are unknown. Metal under certain conditions, X, is a liquid; under conditions Y is gas; under conditions Z is a solid. If we can tell just what these conditions are then we can get back to the A (assertory) judgment. The point is that the distinction between the types of the judgment as illustrated here by the universal and particular is not a mere matter of the amount of the subject, but the distinction really falls in the copula itself and affects the manner or the mode of a predication. We cannot get any basis for classifying judgments by considering the subject or predicate by itself, but the only genuine basis for classifying judgments is to see what kind of assertion we are making. It is the kind and manner of assertion which makes the content and determines what kind of a judgment it is. It is the subject matter, the problem under consideration, the situation as a whole, which controls both the selection of the contents which appear in the subject and predicate and the mode of their connection as found in the copula. The situation which is being determined, the difficulty which is in resolution, the system of experience which is being wrought out, involves both certain matters, contents, and certain relations, interactions of these

contents. At one time we may be stating how the content determines the interaction and then we will talk about the copula as simply stamping with assertory force the subject and predicate. At another time we are interested in how the interaction affects the content and then we will speak of the influence of the copula on the subject and predicate. But the situation as such necessarily involves both the contents and their interaction on each other. It is a moving equilibrium: whenever the content changes, the interaction changes, and when the interaction changes the content changes. The formal logic as ordinarily presented is a branch of rhetoric and not logic at all. The devices of formal logic are statements for enabling you to get at the exact force of any proposition in an argument rather than as a statement of the thinking process as a process of inquiry. The formal logic supposes the process of inquiry to be already completed, and takes it up there. This is valuable, but it is rhetoric, not logic. Logic is the science of this thinking process itself. Rhetoric seeks simply to give a method of consistent presentation. Tomorrow we will take up the other side of the process: How can the assertion of "is" as made by the judgment coincide with a man-being-struck-and-getting-angry-and-striking-back? There is no assertion there on the part of thought, the relations are all in the content itself. Now when I pick out that which makes it a judgment, that moment it appears as an assertion, not simply

as an objective fact. The question is, How can this mental assertion get this objective validity?

[THE ACT OF JUDGMENT]

From the objective side or side of content the point has been made that the copula represents that interaction of the various factors in a total situation which constitutes that situation as a whole and at the same time makes each particular factor what it is as a factor in that situation. The point is that the interaction not merely makes them members of a whole but also makes them as members of a whole. The stones are not already there, to use Lotze's illustration, but what they are as stones is for the sake of making them enter effectively into the building. The shaping of the stones just as well as the putting of the stones together is an act of judgment.

We have still to raise the question of the statement of the copula as an act. What relationship does that bear to the statement of the copula in terms of content? Of course, any complete discussion of that is virtually the discussion of the validity of the thinking process as such, i.e., the question of the so called epistemological and metaphysical statement of the logical process. But it is a question also of direct logical import. We will dodge the larger epistemological question and discuss the logical question. We will not discuss the whole question of the validity but,

following the clue or lead of the logical statement, find out what conception of validity we would naturally be led to form. Assuming the standpoint of the logical process and elaborating that, what standard of validity would we arrive at or assume in that case? A larger discussion would involve a comparison of this standard of validity with other standards of validity which have been propounded. But ignoring that here and assuming the validity of the thinking process, we ask what kind of a conception of validity we get in general from that.

This has already been discussed somewhat. The criticism which the modern idealistic school has continually passed on the sensational or empirical school is that the latter has assumed the phenomena, things, events, related in space and time (coexistent and sequent) as somehow given, and has implied that the sole function of thinking is merely a corrective, rectifying one, that someway we come to assume that there are certain coexistences and sequences which are there and others which escape us, and the rectifying work of thought consists in eliminating these prejudices which have led us to substitute certain coexistences and sequences forcing those over into the real, and bringing to light those which are actually there but have escaped us.

The criticism of the idealistic school on that statement may be formulated under two heads. (1) That sequence in time and coexistence in space -- orderliness -- is after all a relation and as such cannot be given, that all that can be

given is feeling, feelings, sensations, and that the apprehension in space and time, though it may be apprehension at the minimum, is still the work of thought. There is always the need of a further function to transform this material even into this minimum relation of coexistence in space or sequence in time (cf. Green especially). (2) The second head is a development of the first. There is a certain contradiction in this twofold assumption of the empiricist that these coexistences and sequences are somehow there and yet they have to be hunted for. How can they be really there and yet have to be hunter for. How can they be really there and yet not show themselves? How can there really...[ ][2]...idealistic school has worked out is that this conception of an order in space and time which does not immediately present itself but which has to be hunted for involves that that order is really permanent and is objective, involves a contrast between that and our ways, our modes, of apprehending, our ideas; assumes that not merely there are the particular sequences and coexistences but when the empiricist goes on and regards that as an order which has to be discovered and not an order identical with the coexistences and sequences which have presented themselves, he is assuming a real objective world. In that assumption of a regular objective order distinct from our modes of apprehension, there is involved a further thought process. We have

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2. The last line of the page is partly missing in the text.

to go still further in the recognition of the synthetic activity of thought.

Mill talks about invariable coexistence and sequence as the criterion. "Fire burns hand." "The sun rises every morning." The great problem comes to be how to discriminate between the real objective set of sequences and those which are due merely to our modes of apprehension. All Mill's various canons are simply ways of finding this out. The idealistic school has pointed out that any apprehension of coexistence and sequence requires the synthetic activity of thought; much more, such a relation as the "invariability" of Mill. In this invariable, constant, regular sequence and coexistence we have to recognize the action of thought in a more thoroughgoing and constitutive way.

But the idealist then goes on still further. The criterion or proof or basis of the thinking process to the idealist is that it is the thinking process which constitutes the objective world, and of course we have the whole post-Kantian philosophy attempting to carry out this implicit side of kant, attempting to get rid of his thing-in-itself, shoving Kant's thing-in-itself over the edge of the universe, it having its only possible meaning in experienced and experiencible things. Our process of thinking can have, may have, validity because it is of the same nature, kind, function, with the order of thinking which constitutes the objective world itself. That is the point of view which Green has worked out in his Prolegomena to Ethics, that our thinking

is the reproduction of that eternal constitutive thinking, that mind is the vehicle of this reproduction -- so that our mind and our world are in continual correlative growth. The eternal mind working through us reproduces itself through us and so produces, puts before us, the objective world which it so constitutes. Admitting that the argument has gone smoothly up to this point, there is still a question. Why should the eternal, perfect (complete), constitutive reason reduplicate itself in us in an imperfect form? This theory accounts for truth alright, but why should there be any error? If the constitutive reason constitutes the real world, why when it works through us does it constitute a lot of errors? We might admit that it might constitute ignorance, and take time for the process of coming to the knowledge of the truth. But it not only does that but it does some of its work wrongly, so that it has to be done over again. That seems to be the primary question which still faces the idealistic theory of knowledge. Historically, there have been various answers to that question, but they all assume some external limit against which the eternal mind is working and which somehow affects the mode of its working. It only begs the question to say that we are finite (Bradley). We still have the question of why there should be this finite. We have the real problem left, as to how on the basis of such presuppositions there could be any finite mind at all. That is the metaphysical state of the difficulty.

There is a logical statement. It assumes that a real objective world is the content of a complete final unchanging judgment. The eternal mind presents the universe to itself at once and all at one stroke. Whatever changes there are are not changes of the judgment; they are, so to speak, a complete, final presentation and summarizing of all the changes which could ever occur--as if you could take what is for us in time and could project it all at once. A man who had had from the creation of the world experiences and for whom each new thing did not displace any other, who got an instantaneous or simultaneous view of the whole time process--that is the way the theory has to deal with the time process, as the immediate content of this single judgment. Is this judgment a concept? In the sense that it is the systematic union of everything it is a concept. But in the sense that it is immediate, it is intuitive or sensation. This is Kant's idea of the perceptive understanding or the rational intuition. This was Kant's idea of the mental life of the Absolute. Logically, then, that being the ideal, what are <u>our</u> processes of judging? What is the copula in us? In this eternal judgment which presents the world once for all the copula is this union of reason and perception: the thought creates its own objects. But what is the copula in our case? In our case this reproduction in us is picking out and piecing together certain of these relations in a fragmentary way, as conditioned by space and time, i.e., we are working under these conditions, and so are simply working

toward, though within, this completed judgment. Our mental activity consists in picking out certain phases and relations of the whole and then gradually piecing them together, so that our partial world is continually building up one judgment. We are gradually getting a judgment which approximates this complete judgment, though still it always falls tremendously short of it.

Analysis and synthesis then are as follows. Analysis is the picking out of some specific feature within this whole. It is the bit of it that we are concerned with. The synthesis is the putting together of this bit with that bit, not piecing together in a mechanical sense, but it is the combining, the unifying, into one of the contents of these various parts. Analysis and synthesis are not successive, but cotemporaneous. Both extend our vision and assimilate it with what we had before. Both grasp the new and assimilate it to the old. There is where the difference and identity come in. It is at once a differentiation and an identification. As a new bit it is particular, as interconnected with the old it is universal. This organic assimilation is the proof or evidence of its universality.

Now at that point the modern idealists split among themselves. Green virtually assumes and at times explicitly asserts the identity of this so far as it goes with the whole system, that is, with the content of the judgment as made by the absolute intelligence. So far as it maintains itself as a single judgment it is identical with the

absolute intelligence. Lotze and Bradley insist that since it is so partial it is qualitatively and not merely quantitatively different, that while we are working within this absolute experience, reproducing and building it up, the fact that we are doing it in so partial a way affects radically the whole thing. Bradley uses the term "experience" of the absolute and insists that in it thinking and feeling and willing which are distinct in us are there absolutely united, and that we really have no perception of what the life of the absolute is, since our life is so disjointed. So the conception of the absolute becomes quite different in these two groups or writers. Royce attempts a sort of synthesis between the two, that every judgment even when it is wrong has meaning only within a larger more inclusive corrective judgment, that in all erroneous judgments we are postulating, implying, an inclusive corrective judgment. He insists that this is both like ours and yet is a complete synthesis which ours in not (see his World and the Individual). Our ideas are not mere ideas, but as meaning something are always intentional. So that Royce would insist that the difference is one only of degree and not of kind between the finite individual and the absolute experience.

Here we get a contrast of two notions of validity. The validity of the thinking process of the modern idealist is based upon, falls within, reproduction of this complete judgment, and therefore can never get, even in its greatest

deviations in to error, entirely away from it, and therefore truth means proximation toward this actual completed judgment. The contrast of the fragmentary with the whole judgment, or of the fragmentary meaning with the total meaning (Royce), of the fragmentary intention with the fulfilled intention, is what constitutes the relative invalidity and the relative validity. Bradley recognizes the difficulty more than any other writer, and does not gloss them over, and insists the most that after all the thought process in us is so diverse from what it is in the absolute that the actual assimilation of the one to the other is extremely slight, that we have to live by faith rather than by sight. Yet he does not surrender the conception that reality is the identification of subject and predicate. He is the one who points out that we cannot ascribe validity since our thinking process is simply a process of apprehending details which have previously escaped us, that we cannot give validity to the thinking process in any metaphysical sense. It helps us along somehow but the help that it is is very hard to define -- it is simply that it does help us along.

This shows that the proper method of going at it is to take the knowing, judging, process as it actually is taking place and ask what kind of a validity that thinking process aims at. How does this thinking process judge itself? How does it differentiate success from failure? What is its own test? When does it regard itself as successful in accomplishing what it is after? This is the necessary starting

point logically, to see what the thinking process is trying to do, and by what criteria it tests its own success. The thinking process does at least discriminate between truth and error in the everyday practical sense (though not so in the ontological sense). Some judgments are false and some are true, and the primary thing that we want to get at is what is involved in this discrimination between truth and falsehood. How does thinking go at the apprehension of what it calls truth and how does it discriminate that from what it calls errors and mistakes? The only question of immediate logical importance is the question of how thinking itself judges between stimulants which it regards as concretely naturally valid and invalid? What is the place of analysis and what is the place of synthesis? What is thought from its own standpoint when it distinguishes, differentiates, analyses, and when it relates, connects, synthesizes? We must judge it first by its own standard before we attempt to judge it by some further metaphysical standard. The point is that judgment in asserting an interconnection of diverse elements in a situation by that very act asserts that situation as real. There are not two acts, one the elaboration of the content and the elaboration of their interaction, and another act the standard of this as something real.

Take analysis or analytic abstraction as a test case, and ask what judgment is trying to do in analyzing, and thus arrive at some conclusion as to its validity. This discussion will be based on pp.94-105 of Bradley's Logic. The

argument from his point of view is that analysis because it does pick out from the whole cannot become objectively valid, but takes a very fragmentary part of the whole and therefore that the act of analytic abstraction being this act of ripping up a whole and taking a part, cannot have objective validity. The question which we will take up tomorrow is just what this analytic process is trying to do. Then we will take up the other side of generalization later.

[THE FUNCTION OF SELECTION AND GENERALIZATION]

I shall assume at this point that the thinking process always takes the form of analysis in one phase and of synthesis in another. For the present argument it does not make any difference whether what statement is literally correct or not. It can be assumed readily enough. If we can see what is meant by these particular functions having objective validity, those of comparison, quantitative measurement, etc., will come in also.

In Bradley (94 f.) he attempts to show that the analytic judgment of sense must be false and, while he nominally confines his argument to the analytic judgment of sense, yet the arguments that he brings up are of the same general character and will apply equally as well to any kind of analytic abstraction. The reasons that he gives are that analysis in the first place is partial. You pick something out and something else is ignored, and that selection is a

transformation. In picking something out you have really stated the whole to be something which it is not. Mere picking out is an impossibility. And, furthermore, it always, even for such truth as it has got, presumes something else which is not expressly affirmed, but which is absolutely necessary to that which is affirmed. Or, more specifically, every fact selected from space and time by its very nature involves both an indefinite regress into its own parts and phases and an indefinite regress into its context, and it is purely arbitrary to break off this portion of space and time and separate from the whole series or grouping to which it belongs. Moreover, it is by the very nature of the case impossible to get hold of or present the entire series or aggregate to which the piece that is broken off belongs. It is literally a regress and egress. It is impossible by any amount of such judgments to exhaust it. It is not merely that this particular analytic judgment is false because it ruptures a part from the whole and then presents this part as the whole, but no series of such judgments could by any possibility present the whole. There is an illustration or carrying out of the general point of view, the assumption that the reality is somehow a completed objective whole and at best our judgments simply pick out and string together particular portions out of this whole.

Before criticizing, I[3] will state the converse view, namely, that analysis is never taking pieces or parts out of

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3. Sic.

a whole, never division, or separation or sundering, to use the phrases which Mr. Bradley applies to it. It is rather a definition of the whole, a distinguishing of the whole, not of parts within the whole, but of the whole. It is the whole presented as distinctions, as defined, as limited, that limitation consisting not in the merely negative fact that we take a small bit and leave the rest, but it is the whole limited in the sense of being specified to a particular quality. Analysis is essentially determination to a characteristic form and mode of meaning. Psychologically it is to be conceived as emphasis, as accentuation, as selection; meaning by selection not taking something and leaving something else, but selection of meaning, of value, attributing one sort of value rather than another sort of value. So that the real question logically is not taking a part our of a whole, but the real question is what is the justification of this process of emphasis, for this process of specifying the whole in this or that or the other value or meaning? Taking it in that way, the real criterion of validity would be put in this way. Why does this specific distinction or emphasis take place? What is the motive for it? What need calls it out? And how does the selection or emphasis when performed operate to satisfy this need? That is, to sum up, what is the need for it and how does it satisfy that need? Then the criterion for validity is this success, whether this operation of analysis really meets the need of the situation which calls it forth. Does it do what it claims or pretends

to do? If we learn what the need is and then find out whether this analysis meets this need, we have the only possible criterion for validity. This implies that there always is a need, difficulty, problem, and hence the question of function or operation or serviceability is simply a question of fact, whether the selection takes place in such a way as to solve the problem, restore equilibrium in experience. If it does it is valid.

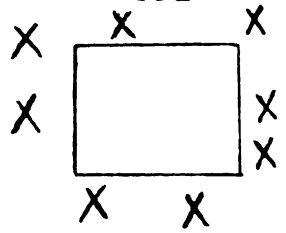
Mr. Bradley's illustration is that of the wolf: "There is a wolf." According to Mr. Bradley, in the first place we pick out arbitrarily only a part of what is sensibly there and, in the second place, what is there for us is in itself an equally arbitrary sundering from what is actually there. The point in saying that analysis is not division or sundering, but the determination of the whole to one specific mode of valuation is, first, that it is not true that there is a contrast between the total complex of qualities and relations and our judgment itself as picking out certain things within that complex whole. It is not true that when a man says "There is a wolf" that he has got before him a complex whole of qualities and relations and then that he picks out the qualities of the wolf which is set over against that background. The only background is the feeling. It is quite true that at some other time you might have presented some other qualities or relations. But that is a different thing from saying that a total complex of qualities and relations is the fact which is given. That is the psychological

fallacy. The only fact or content which is given is exactly the content of that judgment itself, "There is a wolf" (say the bushes with the wolf located in them). It is a sheer psychological fallacy to say that there is anything else in the background. What Mr. Bradley is virtually doing there is to contrast the ideally most perfect judgment which might be made with the actual judgment which really is made in that situation. It is not that there is a whole given to judgment which the judgment rips up and takes a bit out of. He says that it is "never possible to exhaust the whole of the particulars which are before us." He assumes all the time that reality is somehow there before us. He says that we say that there is a wolf and a tree, but he says that this is very much less than the wolf or the tree that we see. If he means that the real experience is different from the mere verbal description, of course this is true. That is the difference between the real or the live and the dead judgment. But he does not seem to mean merely that, and if he does not mean merely that then he is open to the very criticisms which he makes with such vehemence on the empiricist. But to take Bradley for what he really means rather than for what he says, there is a variability which might be regarded as indeterminate or arbitrary. That is, we can say that this particular judgment represents only one of a number of judgments which might be passed with equal truth. Not that it as a judgment is less than the whole fact, but that the real whole fact might take any one of a dozen forms as well as

this particular one. A description may be a good description and yet take may different forms. That is, one and the same real content can shade off into an indefinite manifold of judgments, because judgment emphasizes this factor in it, and that judgment another factor, and so on. The whole series of those judgments put together even cannot adequately describe the whole fact, and therefore they are all false, says Bradley. You can imagine fifty different persons looking at what we call the same scene and yet passing different judgments. Here is the problem in its real form. Is this variety of judgments which can be passed arbitrary and indeterminate as to the things which are analyzed, or is there some principle which controls the selection? The need is what controls the analysis, and the criterion is the adequacy of the analysis to meet the need. Each particular judgment has its own standard of validity. It is simply a question in this particular judgment between what it pretends to do and what it actually succeeds in doing. There is always a motive which controls the mode of approach and which controls, therefore, what is picked out. If a man says "There is a wolf," that selection or analysis is for the sake of getting a basis for setting free a certain habit, instinct, or reaction which is to meet this particular situation. If this judgment enables the man to cope with the situation, if it arouses just the response and only the response which is needed to organize his experience, it is true. If it is only a dog that is there, then the judgment

is false, because it has called out an inadequate or unneeded reaction. If the man says there is a wolf there, and it is true that there is a wolf there, but also that there is a lion nearer him than the wolf, then the judgment is false, because it has come short of the fact, of the whole. He has seized on a part of the whole which is relatively irrelevant. In that case his judgment is a separation, a disruption, a sundering. It is not really a wolf-situation, now, but a lion-situation: hence that judgment is false. It is not true that the judgment is true as far as it goes. It is not a question of going so far, but it is a question of the situation. We have not an arbitrary criterion, but a definite one, that the judgment must be of such a sort as to call out a reaction which will organize the whole experience. The assumption of Bradley that there is somehow a fixed completed situation there is not relevant logically, even if it were true metaphysically. The only thing important logically is that fixity in the sense of stability may be given to the response. The judgment always takes place within limits of a certain kind. A judgment is impossible without limits which are fixed with reference to possible future experience of some kind.

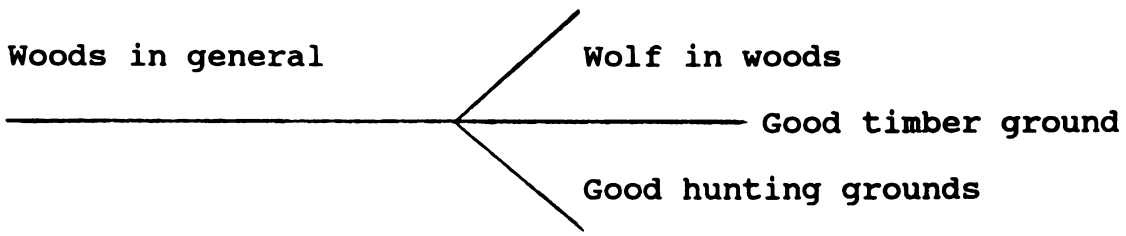
The idea may still persist in your mind that there is a situation which is larger than that which is judged, say, as the wolf-situation, as a beautiful landscape situation, or what not; that is, that it is the same object or situation seen at different angles.



That raises the question as to what is the relation of this persistent pervasive identical content which may be contrasted with the particular analyses which may be made of the situation, to these particular analyses. The real object, since it is individual, is always the object of the particular experience. We suppose the contrary is to assume the position of the Scholastics of an abstraction which could have a real existence. The real situation is always one with a wolf, or this or that. There is no woods in general, and then sometimes there is a wolf in it and at other times something else in it, etc. The woods exist only in and by what is in it concretely. There is no such thing as the table in general, but it is always this table in this particular situation of light or shade, etc. To suppose that there is a table at large is the realistic fallacy over again, of hypostasizing an abstraction. It still remains true that there is a reason for setting up this permanent abstraction which is contrasted with the changing particulars, and here we get over into the discussion of generalization. There is something there which controls the variety of different apprehension, which when grasped, facilitates and economizes all the different responses which are made. This sense of the general object persisting unchanged is a certain core of the reaction which remains unchanged from

time to time. The important thing is to grasp the object from the point of view of what will unify and economize all the variety of our modes of dealing with it. The important point is the teleological one, that the table is something to write on. The difference of light and shade within certain limits are incidental, do not affect the type of my reaction and it is the type of my reaction which controls. There is a certain mode of response which it is valuable to have fixed or stable. We set aside that common mode of response, which is psychologically represented by the habit, and interest ourselves in the variety giving the variable element of contingency in the activity.

What misleads Bradley to the conception of one uniform fixed object which is what is the real, ideal, perfect judgment, is the fact that it is economical to have habits, uniform modes of reaction, so that each case of reaction does not stand alone by itself, but can be considered as a specific adaptation or differentiation of one fundamental general mode <u>of</u> response. What he calls the perfect judgment is what corresponds to this identical persistent element in dealing with the whole situation.



The Reality is the whole thing.

We will today complete the discussion of the significance of analytic abstraction or selection in the judgment. When I say "There is a wolf," the real fact is a particular wolf, not like any other, in relation to this particular environment and to my internal self which is present in a particular condition of feeling, emotion, and thought. The criticism on Bradley is that there is not something present to sense and then the judgment operates on that, but the sense judgment is itself a real judgment. When we say the words "There is a wolf," it is not a full judgment, but in any case where the judgment is really passed, the content of that judgment would be the real fact, this particular wolf. That is, the content of the judgment is the content precisely of that situation. Mr. Bradley would say that this particular wolf would include a great deal else besides that which is found in this judgment. The judgment is a selection. But I say that the particular wolf is the wolf that is operative in this particular situation, and if the color of the wolf and the length of the wolf's tail, and all the other details which one might judge about in the situation, if they are not relevant as stimuli in that situation, then they are not that particular wolf in that judgment, and therefore the judgment is not a false one, even in the sense of taking the part for the whole, if they are so relevant. The only criterion for the whole is the completeness of the experience which is instituted by the judgment.

The entire fallacy of Bradley's point of view is the assumption that it is somehow the business of every judgment, if it would be perfect, to somehow state the whole of an objective reality. In other words, for Bradley, the criterion is to be found in the subject matter presented, irrespective of the conditions of this or that or of the other judgment. But the real criterion of the totality of the judgment is the capacity of the judgment passed, no matter how partial its content (from this other point of view), to effect or produce this total experience. If the judgment enables the man to integrate his experience, to kill the wolf, to save his life, then the judgment is a total judgment, and not a fragmentary and partial one. The business of the judgment is to select. It is not a defect in it that it selects, but the test of the selection is that if facilitates the successful response, the organization of further experiences. The series of judgments reinforce each other and so we get at last the abstract scientific judgment, and so we get the feeling that the content which corresponds to the most comprehensive judgment is the real wolf, in the case of the illustration. That assumes that thinking is a process which occurs without limits and is an operation which occurs for its own sake. As against that, I would say that the most complete scientific judgment that a man could pass at that time would be the false judgment if it interfered with the proper reaction. If the man, when the wolf was jumping at him, were to begin to analyze his characteristics as a

comparative anatomist or to classify him zoologically, etc., that would be the isolated and hence false judgment. That would be the case in which he would arbitrarily bite off a piece of experience, shear it off, sunder it from its content. The man would be crazy. The test in no case is the comparison of the particular judgment with this abstract scientific judgment, but whether the judgment does isolate itself in this way from experience or does help to weave other experience together into a total experience. That is the answer to Bradley's question as to why we make the selection. The principle of selection is precisely this functional capacity on the part of what is selected to institute an organized experience. This fallacy of an exhaustive object, of a complete object, as the content of a complete or ideal judgment, is one which is worth getting a hold of, since it comes out in ethics as well as in science -- in so called ideal perfection (e.g., in Green's Prolegomena to Ethics), as the realization of all possible capacities, the complete filling in of every possible moral trait. That false conception of moral perfection is false because it ignores the real standard, namely, the adequacy and relevancy of the act, and substitutes for it a perfection which is confessedly beyond the possibility of realization. The impossibility of realizing this state of character in which all capacities of action shall be realized is really witness to the unreality and absurdity of the demand made. It consists in taking what has value only in relation to further

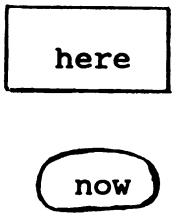
experiences as if it ought to be a complete experience in itself. The significance of this more complete judgment which takes up into itself the contents of many other specific judgments is that it really serves as a concept, as a general guide or method of action easily adapting itself to great diversity of particular situations, with the maximum of assurance or probable efficiency and the minimum of probable loss of time and of friction. The fuller the concept of the wolf, the greater the probability that in the individual situations which arise the particular features which are important will be apprehended and so the correct action take place. The so called exhaustive judgment of science is a sort of insurance against accident, the accumulation of capital which can be speedily utilized in a variety of different conditions.

Take Bradley's other example: "I have a toothache." (cf.p.104) This really means that whenever certain conditions are such and such, I have a toothache. It is only when we pass on to this hypothetical form that the real truth of this judgment comes out. The difficulty with this judgment is that it is simply the "I" under certain conditions which has the toothache, and therefore the proper relation would be likely to be set up, the proper reaction to take place. It would only be in exceptional cases that in the case of the wolf the judgment would lead to the proper reaction, but in the case of the toothache, we proceed at one either to get it pulled out or use a local anesthetic, or do something

else. It is not true that it remains a mere abstract hypothetical judgment, it becomes the method, say, of the dentist who instead of simply stopping short with this vague indefinite judgment "I have a toothache" says why I have a toothache, and instead of reacting in a bulky wholesale way to the whole situation, defines the situation and reacts with skill and accuracy to just the point which requires treatment. It is by defining the important characteristics of the particular situation in such a way that it can be properly reacted to. This abstract judgment never, logically speaking, crowds out and takes the place of the vague judgment, but its sole value is that it puts more meaning into that vague judgment. It does not stay up in the air, but is resumed into it, states its characteristic features.

The test for abstraction or analysis is whether such elements are picked out as characteristically defining the situation will stimulate, bring into play, the proper mode of reaction. That mode of reaction, as a mode, is generic. It corresponds to instinct or habit or any organized scheme of activity. It is a way or method of dealing with things. The root of the generic or general is that it is a mode or scheme of response. There is no object which is general. That is the fallacy of realism. But the general exists for us as a mode of action which is in its core identical in a great variety of different cases. When a person has really generalized the judgment "I have a toothache" it does not mean that he has extended his toothache to pervade his

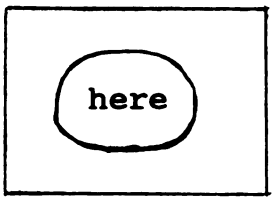
entire being. It rather means that he has defined himself as having the toothache in such a way that he has a scheme, a plan of action, for dealing with any cases of toothache. Such words as "way," "plan," "method," "mode," "scheme," are words which locate the true generalization. The hypothetical statement simply abstracts and brings to explicit consciousness the statement of just those phases which determine the general plan of reaction. Mr. Bradley holds that not only do we select arbitrarily the fragment of the presented whole, but that the real cannot possibly be confined to it. He holds that the judgment arbitrarily breaks off a certain amount of space which it calls the "here" and a certain amount of time which it calls the "now" (James' specious present).



There is no knife-edge of time. In other words, Bradley suggests two possible modes of getting a complete or true judgment. (1) One is along the line of picking out conditions, of getting a universal. If MN then MOP. But we never could state all the laws or relations which enter into a wolf. That would be a statement of the whole universe. (2) The other method is by extending the space and time series, extending or increasing the scope of the particular. But, as Bradley points out, you never could complete that, and because you could not the selection is arbitrary. Take in as

much of these as you may, you are still far short of the complete whole. Now, we have the same problem here that we have had before. Is there a principle, and if so what is the principle upon which this selection of the "here" and "now" is made? What is the basis of our segregating a particular part of space and a particular amount of time? Does what we have done there logically demand that we keep on doing it, keep on making the "here" and the "now" bigger and bigger? I say that the subject of the judgment is always a manifold in space and time because it always places the particular point at which reaction is most immediately reacted in a situation consisting of a number of other points of past and future reaction as well. Take the example of the fire in the theater. The man locates the fire with reference to himself. I am here and the fire is over there. It certainly will not be long (unless he is panic stricken) before he will locate another point, a place to get water to put the fire out or a place to run to to escape the fire. Any one of these points taken by itself is absolutely meaningless. There is no such thing as position except with reference to something else. It would be useless to have an absolutely single point at which reaction is to be directed. A single means to an end is an impossibility. Where there is only a single means it is itself identical with the end. You must have at least two means. There at least must be a duality, and the proper relation of these to each other constitutes the realization of the end, defines the proper response. It is where the person

stands and the fire, or where the person stands and the door.



There is the explanation on the functional basis for what Bradley seeks an explanation of on an objective basis. Bradley takes it as a sign of an intrinsic defect in the process itself, instead of a sign of a fallacy in his logical theory. Of course, the "here" and the "now" must extend since they have meaning only as they help to bring the object into relation to the next reaction. The man locates a definite spot in space but the only motive for restricting, selecting, this very limited spot is in order that we may coordinate it with ourselves or with some other activity. The moment we have confined our attention long enough to define the object we react and are thus taken beyond that object to some other situation -- that is what Bradley calls the fluency of the outer edge. It is of the very nature functionally of space and time not to be confined, and yet it is also their very nature in another sense to be confined. It is because space and time have both this confined and this extending aspect that they are useful, available. The perfection of the space and time judgment would not consist in getting the thing in, so that there would be no outer edges; for it would then cease to have any meaning

logically. It might have an aesthetic value perhaps, but no logical value.

Finite: confined -- discrete aspect of space and time.

Infinite: extending -- continuous aspect of space and time.

In confining our attention so as to get the specific way in which to react to the object, the thing becomes concrete. But the only motive for doing that is to get a basis for connecting it with other events, and here we get the continuous aspect. Any space and time is infinite. You do not have to get a great big space and time to be at once finite and infinite. In its finite aspect space gives the particular focus which calls out the reaction. In its infinite aspect space is related the new experience. It is not because we take the exhaustive judgment to be the reality, but because the fuller the statement we get the fuller and more expeditiously we can locate the particular things as they come up. Bradley's theory would insist that a perfect map ought to be an exact reduplication of the thing that it is a map of. But if we had such a map we would be no better off than we were before. The value of the map is that it gives us an outline scheme which is valuable because it is an instrument or plan. Its value, like the scientific statement of the space and time world, is that of giving us a method of control, a plan of reaction. We are not after this complete exhaustive statement, but after simply a plan of arrangement which will serve us in our journey through life, just as the map serves

us in a journey through a new district, so that we can fall back on some established habit, on some established mode of reaction.

To sum up, if we recognize that the real significance of both distinction and generalization is functional, to maintain the integrity of experience, we cease to suppose that we are after either an exhaustive space and time statement of the world or an exhaustive conceptual statement in terms of law. Every real judgment is of the individual type of the "this" and the "me" in relation to each other in a concrete situation, and the abstraction and generalization are both for the sake of solving this special difficulty, for discovering the appropriate stimulus for the response which is demanded in this particular instance.

After the reports, I will go on to the discussion of the particular forms of the judgment. This is the end of the discussion of the judgment in general.[4]

4. These reports are not included in the appendix. They deal with topics removed from the present analysis of judgment.

Appendix A

References for Reading for the Coming [Winter 1900] Quarter

Hobhouse, Theory of Knowledge, Chapters 1 and 2 on simple apprehension takes up some points that have already been considered. The chapter on the nature of the judgment also is worth reading in comparison with Bradley's, Bosanquet's and Dewey's point of view. Read also chapter on the validity of the judgment, and chapters on generalization.

Venn, Empirical Logic. The whole standpoint and method is so different that it is difficult to give specific references. With the exception of J.S. Mill, Venn is the most suggestive and helpful of all the empirical school. He has many of the traits of frankness and straightforwardness that you find in Mill.

On the scheme of the classification of the various judgments it is difficult to give references, because the subject is not discussed very much in the logics from Dewey's point of view. Hegel may be consulted. Read Bosanquet, pp. 90-103. Lotze, Bk.I, chapter 2 (he develops a system here though he does not state it very explicitly).

The disjunctive judgment is a matter of considerable importance, though it is not adequately treated anywhere from Dewey's point of view. But read Venn, chapter 10; Bosanquet, I, chapter 8; II, chapter 5; Bradley, chapter 4; Lotze, I, 96-105; Sigwart, I, 228-232.

Next quarter we will go on with the discussion of the predicate or concept; with the nature of ideas or concepts and all the problems that are connected with concepts, their formation, validity, and use. It is impossible to confine references to this particular subject. Concepts are universal and universals are, logically speaking, concepts. We will discuss among other things, inductive inference, reaching the general from the particulars (inductive method, etc.). Many writers discuss this matter of the predicate under four different heads (1) the nature of the concept, (2) the nature of the universal, (3) the nature of induction as a process of reaching the universal, (4) the formation and use of hypotheses. These are really bound up together and to be discussed with the problem of the nature of the predicate and its function in the judgment. Hence the general nature of the references.

Lotze, I, 37-57 (makes the concept precede judgment) Bk. II, chaps. 2 and 7, Bk. III, chap. 2. (This is really connected with the subject though Lotze does not see it.).

Jones, Philosophy of Lotze, chap. 3 (criticism of Lotze on this point).

Creighton, Introductory Logic, 268-274 (he gives some references on p.274).

Sigwart, I, 29-50;245-294; II, chap. 2.

Bosanquet, I. 30-41'46-72; I. chaps. 5 and 6.

Bradley, Bk. I, chap.6 (discusses the matter of the quantity of judgments, particularly extension and intension).

Mill, Bk. II, chap. 3 (discussion of inference as the process of forming universals).

Venn, chap. 7 (On terms; the latter part takes up universal terms).

Wundt, Logic, I, 86-134 (discussion of the formation of concepts from the psychological side).

Two other problems will occupy us next quarter. The logic of observation is treated by most writers under the inductive method: but as Dewey treats it it comes under the subject of the judgment, and might have been treated during the past quarter in connection with the discussion of the subject of the judgment.

The logic of the formation of hypotheses is treated by Dewey in connection with the predicate of the judgment. The inductive logicians, Mill, Jevons, Creighton, Venn, Welton (two vols.) give a good deal of attention to the hypothesis.

Dewey discusses the principles of inference and of the concept in connection with the judgment: in this respect he differs from most logicians who have three parts to their logics, on conception, on judgment, and on inference.

OUTLINE OF THE TOPICS TO BE DISCUSSED NEXT QUARTER

We have been discussing the judgment in general and the subject of the judgment in particular. We will next quarter go on to the discussion of the predicate. That involves the discussion of ideas, of concepts; of the concept as the universal and of the concept as hypothetical (as hypothesis). Then the next topic will be that of the copula, or interaction of the subject and predicate, the tension, which brings us to the problem of inference in its relation to judgment, and to the two general types of inference, the inductive and the deductive. Then comes the discussion of the types of judgment, categorical, hypothetical, and disjunctive. This will be a summary and review of what has already been given, rather than involving any new topics. Then a more detailed exposition of the series of judgments, the classified system of the judgments, what Bosanquet calls the morphology of the judgment, the various forms which the various functions of the judgments assume, laying stress first on judgment as

determined on the side of observation (the categorical judgment), secondly on judgment as determined on the side of explanation and interpretation, that is judgment on the side of the formation of hypotheses and theories (the hypothetical judgment), and thirdly, judgments of classification and systematization (the disjunctive judgment). Every judgment is implicitly a disjunctive judgment. The categorical judgment stands simply as the explicit acceptance of some <u>one</u> of these various disjunctive alternatives. Disjunctive judgment stands in the closest relation with inference, which is simply the fuller development of the different alternatives represented in the disjunctive judgment, and with argument, classification, and systematization, which will be taken up next.

Appendix B

STUDENT REPORTS AND DISCUSSION[1]

Discussion and Criticism of Bosanquet.

The points made by Mr. Bawden were:

(1) A criticism of Bosanquet's teaching that the ideas have a fixed reference or meaning. To be true this would have to be interpreted, not as marking the original state of the idea, but it becomes fixed in so far as the thinking process succeeds in solving its problem: it represents a goat. It is a functional stability. The moment the meaning really becomes fixed, it ceases to be mere meaning, and becomes the meaning of an object. The other point growing out of this was the criticism of the idea that ideas can be symbolic apart from the judgment, or, is there any image apart from this function? (cf. p.75 bottom)

(2) As leading up to this we may ask what, for Bosanquet, is the relation of the image to the meaning, the relation of the idea as psychical content to the idea as meaning, Do we have image and meaning, and then have the idea standing for that meaning? Bosanquet takes it for granted that there is an image there, and that there is besides a world of meanings, and then the image gets the power of standing for the meaning.

Image	Meaning
Flags (p.74)	Evolution of ships.

The meaning is what the content of the image suggests, or calls for. It is the power of one experience through association to bring about other experiences which constitutes its meaning. a) So far as we do regard it as image, the meaning is not something <u>for</u> which that image stands, but it is rather the function of the image; it is that which the image <u>does</u>; it <u>is</u> the other images which it calls up, suggests, or evokes through association. Instead of having <u>a</u> meaning which is external and beyond the image, which by some happy chance the image gets the power of symbolizing for us, the meaning is the capacity of the

1. The discussion is difficult to follow in terms of who is talking. Dewey's remarks are substantial, but exactly when he enters the discussion is not noted.

image, its operating power; it is identical with James' "fringe". b) This distinction between the psychical image and the logical meaning is the result of reflection upon the logical process rather than anything which the scientific thinker as a thinker is concerned with. For him, if the image comes into play at all, it is not as standing for meaning, but it is meaning itself. To the thinker as a thinker image and meaning stand on exactly the same level. It is only when the psychologist comes in that this distinction is made. Bosanquet confuses the real distinction which is involved in all judgment, between fact or existence and meaning with a necessary distinction between a psychical fact and a meaning. The real error of Bosanquet might be represented as an unconscious transfer from one sort of a distinction over into another, not seeing that the fact is the meaning which is not doubted while the meaning is the fact which is doubted. The whole thing on the other hand may be treated as a series of images, and the power of any given image to call up other images is its meaning. Bosanquet takes the idea of image which is relevant to the psychological description of the process and unites it with a conception gotten form the logical point of view. Both points of view are correct, but should not be confused or mixed. It is the indicative function of the image as a whole to arouse through association certain other experiences; and this is its meaning--not certain "index-elements" (p.75) <u>in</u> the image. He talks about the reaction of the meaning into the image (p.39). The process of the selecting of these "index-elements" is the process of the reaction of the meaning into the imagery.

(3) Taking up now the point as to whether ideas can be symbolic apart from the judgment, Bosanquet has denied in advance that ideas can be symbolic apart from the judgment, and yet he goes on (p.75-76) to say that in the judgment the idea can be distinguished as psychical from the idea in the sense of meaning, that is, may be non-significant. The first two words of the sentence, "In judgment, etc.," however contradict the rest of the sentence. We certainly do have experiences in which the meaning element is very slight, but when all meaning disappears, the image has vanished also. Some reference, some judgment, is never absent even in dreaming. We take our dreams to be real when we are dreaming and that is a judgment; we are referring them. Take aesthetic reverie. In what sense can it be said that there is no conscious judgment there? For example, we are building castles in the air. Judgments are there. We afterwards as in the case of the dream find that there and not logical grounds for these judgment, that they are not logically adequate; but there is always at least some vague reference even in castle-building--it is ones's own good fortune, or what not! The idea or imagery has always some teleological reference, some dynamogenic tendency, some tendency to action. Another question comes in here. Does the animal have

images as images, or, if he does have imagery, does he have judgment? If the animal's past experience does react into and modify its present activity, how does it do it if not through imagery? If through imagery, is there not a judgment there?

(4) The criticism of the view that the judgment is a reference to a value beyond the act. The criticism was that the distinctions of subject and predicate are set up within judgment. This is taken up below in Miss Thompson's report.

(5) The criticism of Bosanquet's theory that the subject is but a "spot" or "point" or represents merely the "contact" of reality in the judgment. This is taken up already by Dr. Dewey.

The points made by Miss Thompson were:

(1)A criticism of Bosanquet's distinction between the judgment and the proposition (p.79f.). Has this embodiment of the judgment in language form any logical significance at all, and if so what? Or is it simply a practical, social convenience or necessity? This involves the whole question of the relation of thought and language.

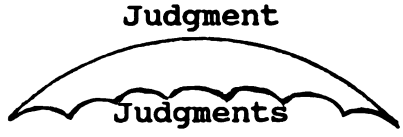
(2) Criticism of his doctrine of the parts of the judgment. The subject is static for Bosanquet, while the predicate is dynamic. He thinks that the copula is disposed of without giving it a distinct function. But the argument in which he practically does away with the distinction of subject and predicate is a desertion of his own position. Criticism of his theory that the subject is outside the judgment (p.81). As Miss Thompson says, the ideal and the real are developed within the judgment. The reality is not outside the judgment. The judgment is not a relation between ideas, but between reality (existence) and an ideal (meaning). The teaching of p. 82-83 is alright, only he thinks the reality he gets in the subject of the judgment is not good enough, but can only "stand for" the true reality beyond the judgment. Certainly we have two problems here which well recur as we go on in the course, namely, as to the essential parts or subfunctions in the judgment. These problems are a) the subject and the predicate question, and b) the copula question.

(3) The time relations of the judgment: the question of the judgment in time vs. the completed judgment, or between the arriving at a judgment and the completed judgment. We have not a transition from subject to predicate , but from the subject with a tentatively defined predicate to a judgment with a completely defined predicate. Bosanquet concludes that time is not essential to the judgment, but this is not consistent with his previous description of the judgment as a movement nor from subject to predicate but

from the implicit to the explicit, or from the tentative to the complete. The solution for Bosanquet's puzzle regarding the time relation of the judgment is in looking on the judgment not as a cross section of the experience of judging, but as the process of the mediation of a new experience, beginning when a problem is proposed and lasting until it is solved. Bosanquet seems to hold that because the transition is not between the subject and predicate, therefore the judgment is not in succession. Many authors have fallen into the error of supposing that the subject comes before the predicate and for that reason the judgment was supposed to come in time. But Bosanquet goes to the other extreme. In showing that the subject-predicate relation is not a process in time he shows that the judgment as a passage from implicit to explicit is in time. Then he goes back on this and tries to make the judgment a timeless cross section of judging. Are we justified in making a distinction between judging and the outcome, the judgment? That can be broken up into two question: (a) Is there any judgment without judging, even admitting the value of this distinction--that judgment, which is not in time, is the important thing? If there is not, why deny the time relation? (b) How far is it valid to make any rigid distinction between the arriving at the judgment and the complete judgment? When the judgment has completed itself is the judgment qualitatively different or continuous with the judging process? It is simply a new sort of experience, construction of reality, or new value. This new construction of experience can of course become the subject of a new judgment. Take Bosanquet's illustration. That man is at the foot of the stairs. That represents the completed judgment. At that point it really ceases to be judgment. What takes place is something else, say, an act. The real completion of the judgment is no longer the judgment, but something which you do. The completed judgment is an act. What makes the judgment complete is that you do something, go out and shake hands with the man, or collar him by the neck, etc. The outcome of any judgment is a construction or reality which as such is not logical: it is practical or ethical, aesthetic, etc., It has a new value or meaning depending on the resolution of the problem. That new meaning is what is characteristic of the new experience. It may and will, if some further problem presents itself, function logically, and may function either as subject or predicate of a new judgment.

(4) The criterion for distinguishing judgments. What makes a judgment as distinct from judgments? It is a fact that the judgment does present itself as a series of judgments. Mr. Bosanquet says that there is no formal answer to the question. But Dewey asks whether there is no principle involved. Bosanquet gives no criterion for the distinction of different matters which lead to distinct judgments. It is the particular act or interest which determines the number and the nature of the judgments. Cf.

again the illustration of p.89. It is the same question as to why an act breaks up into distinct acts. In the illustration it is not a mere matter of accident how such a judgment becomes subdivided. Imagine a man waiting to catch a burglar; then all the statements (p.89) would be relevant, but under ordinary circumstances there would be no point in making such a series of judgments. No sane man would make such a series of judgments unless there were some definite end or interest in view. Bosanquet gives no criterion for the breaking up of this circuit into partial judgments.



The point at the last time was concerning the whole question of the subject and the predicate in the judgment, and more particularly the matter of the spot or the point in connection with the subject. Bosanquet's position might be stated as an attempt to hold the subject both in and out of the judgment (cf.81, 113-114). Certainly the whole content of reality does not appear as the content of the subject. But unless reality is in some sense in the subject we could not know reality and our judgments would be only a "game with my ideas (114)". In one sense we would agree that the reality is both in and out of the judgment. What we say is not that the subject is reality, but that the subject represents or stands for reality in a certain function. The subject is reality taken in a certain way, presenting itself in a certain aspect. Of course we can and should make a distinction between reality and reality as it is taken, but we are not bound to take reality in the particular way in which it is taken in any particular judgment. Reality as it is taken in any particular judgment is reality as it is relevant to a certain situation. According to one view the subject must be regarded as a vehicle to bring us reality, either in toto or a certain amount of reality. But according to Dewey's view it is not the object of judgment to convey reality in that direct way. The value or validity of judgment is rather to be measured by the outcome of the judgment which is not itself judgment. It is the presentation of reality which the judgment finally brings us to which tests the validity of the judgment.

Another point is as to in what way reality is in the judgment and out of the judgment. On p.72 Bosanquet seems to imply that the distinction between truth and falsehood consists not in anything which pertains to the existence in itself, but consists in the right or wrong reference of the existence to an idea. Here, truth has to do with the reference of an idea to reality. Truth implies a distinction between reality and the idea and then the proper relation of reference of the one to the other. But on p.3 the assumption seems to be that truth is a systematic intellectual whole, a

totality, and in that sense truth is identical with reality. The connection of that with the previous criticism is this. Supposing judgment were to become perfect, adequate, would there be any distinction of subject and predicate? Bosanquet seems to hold that in that case we would get a judgmentless immediate intuition of the truth. This would be consistent with p.3 but not with p.72. Bosanquet nowhere explains how or why this fact of our failure to make the reference (p.72) rightly ever arose. Dewey shows that it grows out of difficulty, doubt, problem. Bosanquet, like Bradley, seems to take this simply as an empirical fact, of our finiteness. That the distinction of the subject and predicate must fall within the judgment seems to be a necessity for real knowledge; we must know what we are connecting and how; that would make the whole thing somehow inside the judgment. But if we say that the whole content of the judgment is ideal, in idea, and then that this is referred to reality, the judgment would seem to be the point at which reality impinges on the idea or where the idea gets attached to reality. Bosanquet is thus led to say that reality is given to me in sense perception; that is, that sense perception may be treated (p.83) either as reality asserting itself in my consciousness or as my assertion about reality. That is, judgment is simply a name for the fact that in sense perception we are brought in contact with a world outside of my ideas, a name for the point where that world is in-trojecting itself and making itself known in my consciousness. If your reference is of the content of your judgment as a whole to a reality outside of the judgment, what criterion have you for approving one proposition rather than another? Bosanquet says that "earth going around sun" is one content which is referred to reality, to the real world. Dewey would say that "going around the sun" is referred to "earth". Bosanquet says reality is qualified by the earth going around the sun. Suppose it was just at the time that you are denying the Ptolemaic theory. These are really two judgments. The second judgment is the predicate of the first judgment which is just as much inside the judgment as "going around the sun" is in the second case. They are not the same judgment. There is an ultimate subject of the judgment only in the sense that there are further or other judgments implied always in what is taken as the subject of the judgment. What gives you your criterion of truth or test of verification in any particular case? Your criterion must come in the copula. But can sensation as contact or impingement, as spot or point, tell you <u>what</u> idea is referred to reality or <u>how</u> it is referred to reality? Say it is the judgment "I am burned." There is no doubt about those as existences, as experiences. But if the real world is indeterminate can I say that it is qualified by that fact or simply that it is qualified by my thinking that it is a fact, that I have certain sensations. Take the insane man who says that he is made of glass. There is no doubt here

that he has certain sensation. Your criterion always lies somehow inside the content of the judgment.

Subject (as Reality) + Predicate (Judgment as Content). Bosanquet can consistently get nothing more than the following: "Reality is such that it is necessarily qualified by my thinking that the earth goes around the sun." Mr. Bosanquet's statement is an attempt to compromise between the realistic position (of an indeterminate reality outside the judgment) and the idealistic position (of a determinate reality within the judgment). The whole essence of the thing consists in raising the question which Bosanquet and Bradley do not raise, as to how the sensation comes about, how it comes about that you select a certain sensation as the subject for your judgment. If you answer it as Dewey answers it, you get an answer to the question as to how the sensation comes in one sense to lie within, and in another sense to lie without the judgment. The subject is reality, but it is reality taken as as datum, as instrumental in building up a further experience of reality.

The nearest that Bosanquet comes to an adequate statement of the place of a subject in a judgment is on p.83 (lines 12-14). Accepting this as an expression of his better mind, still the difficulty with his statement is twofold. He presents no theory as to how the subject can do this which he says it ought to do. He accepts it as a desideratum. But there are other parts of his theory which makes it impossible for him to explain how. He speaks of the judgment as extending the content of the subject. Yet he says on p.77 that this metaphor conceals from us the fact that the subject is also more or less artificial. But he gives no criterion for distinguishing between the given and the extension of that given. They at least differ relatively; what is it which makes this relative difference? There is a problem which he raises but does not attempt to answer at all. And the next sentence (p.83) makes it impossible for him to solve the problem. It is in the mere fact that we are directly in contact with sense perception that we get the judgment. The subject is no fixed or absolute datum of content, but unless you can get some organic connection between this and the sense perception, stating where and how reality accepts the predicate, there is no possibility of showing how the predicate can be related to the subject of the judgment. Hence for Bosanquet the judgment never really gets outside of ideas, and the problem of the relation of these ideas to the real world is still left over for metaphysics. Hence the real problem centers about the significance of sense perception. Mere unrelated sensations cannot give any intelligible account of the where and the how in Bosanquet's theory.

Mr. Moncreiff's report concerned the classification of judgments.

(1) Principle of classification. Judgment is born of an indefinite number of question marks and is essentially disjunctive in it inception, and the classification of judgments should represent the various stages by which the judgment passes from this disjunctive through the hypothetical to categorical form. The principle of classification should lie within the judging process itself and not outside the process. The process of thinking gives the criterion for the classification of judgments. Which one of the aspects of the judgments stands most obviously for this aspect of process? The copula. If the differences of judgment are due to the process of thinking, it will be with the copula that we will connect the classification, and it will be differences in the copula which will differentiate the judgments. That tension is the act of attention or the copula. the differences are stated in the subject. It is the function of the predicate to bring out the identity.

(2) Question of the quantitative judgment. Bosanquet contends that it is somewhat exceptional circumstances which would give rise to the extreme quantitative form, and that it is not necessary for judgment to travel through this stage, that it is a sort of off-shoot: he objects to the theory that it must be linear (p.91). But Dewey insists that a classification must in some sense be linear, that the quantitative judgment is primarily nothing more that the accurate description of the "this", the quantitative determination of the "this". Quantity is nothing more than the critical analysis of that which in the qualitative judgment is left vague.

Appendix C

STUDENT REPORTS AND DEWEY'S REVIEW OF MILL

Miss Penfield's report on Venn (Empirical Logic, chap. VIII) and Mill (Bk. I, chap. II, sec. I-IV).

Venn defines subject as that about which something is asserted or denied; the predicate as that which is asserted or denied; the copula as the sign denoting that there is an assertion or denial. But he sets aside the copula--he does not make anything of it. He treats the names which stand for the things or ideas in the subject and predicate as already there. He does not show how they get there or how they get their special names. What precludes him from getting an organic point of view is that he has proceeded upon certain presuppositions that the subject, predicate, and copula are something already existent and possessed of their respective character.

Venn takes an existential view of the proposition. He starts out with an organic statement. Then he passes over to a static conception. He says that the proposition or judgment is formed by putting together or bringing together two names (by which he means objects, contents of thought).But these distinctions arise only within the proposition, and therefore it is misleading rather than helpful to attempt to state what these two contents must be prior to the judgment.

The relation, according to Mill, between the abstract and the general... Mill works back and forth between the general and the abstract, but never comes to any resting place where he can explain either of them. Every general term connotes some common quality and then denotes all the individuals that have this common quality. So really to get our full explanation of the general we must go over to the abstract. When he explains the general he takes the abstract for granted. Is the collective term merely an aggregate? A regiment is not a mere collection of men; it is a collection of soldiers, and you could not define a soldier without defining his place in the regiment. The collective term, instead of being as aggregative term, is a systematic term, not a mere addition of many similar things, but expresses the fundamental idea of all these things; a term which expresses the organic unity; a totality rather than a collection. Connotation implies an attribute, and the attribute as such is abstract, according to Mill; hence there would be no content where the process of abstraction had not come in.

"The sun." "The only son of John Smith." Has this any connotation? The concrete singular name may or may not be connotative; if it is a proper name it cannot; if it is a common name it may be. A general name must be connotative. The particular is the thing that exists, according to Mill. The connotation is what we give to it. Carried out this would say that the particulars would be real and the connotative process would be a different realm, and could only deal with these particulars from without. The attribute being a thought construction, the thing as a particular can have no attribute. So you are forced into the dilemma that either thought does everything and then thought would be unreal, or the particular would already have an attribute and then what would be the use of thought? Or, some singular concretes presuppose an attribute. But the attribute is the abstract. Then either your attribute is real or else abstraction enters into the perception of the particular. You have either got to say that the process of perception presupposes or involves the process of abstraction or that the particular is not due in any sense to the thought process, and then cannot be in any sense abstract; cannot have any attribute.

In the generalization, then, taking his definition of the general, we would be concerned with the attribution of a common attribute to a number of particulars. The generalization, thus, by his own statement, presupposes the abstract. It is equally true on the other side that abstraction presupposes or implies something that is general, that is, generalization. An attribute is called abstract by Mill because it has been withdrawn from a number of particulars. We begin with the particulars and compare, and then this common attribute is abstracted for them all. The abstract, then, is the emphasis of the common feature <u>in</u> a number of particulars; but you have to have those particulars in the background all the time, only you are emphasizing the common feature which the particulars possess. If you emphasize the particulars as possessing this common attribute, as marked out by that, then it is general. If your interest or emphasis is on the common attribute which is presented in those particulars, then it is abstraction. The purpose of the abstract is to simplify, to bring out the identity, to bring it down to a single point; while in what you call the general you get the diversifying, distinction, differentiation, distribution. Cf. humanity (abstract) and man. Mill would make no difference between the universal and the general. He is an empiricist. In the next chapter instead of the category of resemblance he uses the category of series (time series) or group (space series). It is on this side that he recognizes the principle of totality or the system. Of course, he could not do anything with mere particulars, and yet he cannot bring in the principle of identity or his empiricism would break down. So he steers between the two extremes by the use of these terms.

Mill distinguishes between quality which is concrete and yet a quality to be got is the common attribute as abstract; yet the quality to be recognized as general must be an attribute, so that the quality must rest on an abstraction. Mill is forced into that because he always virtually assumes that after all particulars are qualities (hot, cold, etc.). It is not the thing that we have in mind (table, orange). So while here he is virtually assuming that the quality as such is general, presupposing the abstract, in the next chapter he assumes that the thing is only a bundle of qualities. He really has in mind the truth that you cannot think of a thing without its having some quality. The problem is whether on his theory he has got any basis at all for separating qualities into first the simple sense qualities and second into attribute or reflective quality.

When you are thinking of a thing as an adjective you are thinking of it as adjectival, as belonging to, applying to the thing. Accordingly, thinking of it as belonging to the thing, you are thinking of it as concrete, as a quality of a thing, and hence it possesses the concreteness of a thing. Mill's general concretes (white) are really the predicate of the judgment. It always is referred to the subject. But the abstract whiteness is abstract because we are thinking of the attribute by itself, not of its reference to things. We are occupied with it inside the sphere of the quality. Cf. another case: "hot" and "heat." Hot is a concrete quality. Heat is abstract. You are working within the predicate "hot" itself, in order to amplify of determine your predicate. Sometimes we are occupied with applying particular subjects, at other times we are concerned with what particular predicates we shall use. All this, of course, is within the judgment. There are no complex abstracts which do not come to be used as subjects, as concretes. Most unreflective people would say that heat is concrete rather than abstract.

Mr. Stewart's report: Mill on the Import of Propositions.

Judgment according to Mill is the connection of two ideas in the mind. But there must also in addition be what he calls belief. He means by this belief, belief in the objective connection of the two things that are named in the proposition. The act of belief is really a name for the entire judgment. This has logical significance: it is the judgment in the logical sense. Hence Mill is inconsistent in saying that judgment as a process is not a datum of logic, which he defines as a science for supplying a test for ascertaining whether this belief is well founded or not. Logic, he says, is the science of evidence, of proof. The question arises, if the judgment is simply the combination of the two ideas plus the act of belief, what is to determine which of the two ideas is subject and which is

predicate? Mill gives no distinction of function to mark off the subject from the predicate. To get at the point in another way. The secret of Mill's doctrine that the judgment is psychological purely, is that he believes that to make the act of judgment a fundamental problem in logic is to go back to the theory of Locke that the judgment is the perception of the relation between two ideas. The whole difficulty is that Mill has an inadequate psychological view of the judgment as an act, and that it at the same time gives us a knowledge of objective reality, he does not see. Hence he is led to deny that logic is a science of investigation and limits it simply to the act of testing or proving an investigation after it has been made, sifting the evidence after it has been brought forward. Logic is a purely critical science engaged in the judging of judgments. This theory implies that the standards used in such testing are found somewhere outside the process of investigation. And yet Mill is arguing all the time against such a purely formal logic as that of Hamilton.

There are two apparently incompatible strains that are united in Mill's logic. As he says on the top of p.75, what has been done in the advancement of logic has been done, not by logicians, but by scientific men. On the other hand he accepts Locke's conception of judgment as a combination of two ideas. He vibrates between these two points of view without getting any organic relation between them. Mill takes the facts as somehow already given in a certain statement, and then logic as determining the validity of these statements.

Another way of stating the contradiction in Mill is this. Having theoretically confined his position to the consideration of the grounds of belief in stated propositions, yet practically what he is chiefly interested in is the determination of new fact. He is really trying to put the wine of new scientific procedure (which is really what he is interested in) into the old bottles of the formal logic. He says, for example, that most of the propositions are not believed on their own evidence, but on the evidence of other propositions. Here he assumes that the propositions are somehow given, and the logical process is simply finding out whether these propositions are grounded or not. It is reason in the old Aristotelian sense, practically. Yet he says, on the other hand, that inference is a process of getting new truths. This is the other side of Mill which shows the influence of science; his tendencies are thus not in harmony with his expressed theory. Hence his continual vacillation between the two standpoints.

Two lines of criticism may be made of Mill: (1) an epistemological criticism, as represented by Green, that no mere association of ideas can ever give us any knowledge of objective phenomena. (2) The logical criticism, which examines his conception of the judgment, and attempts to develop another view of the significance within the judgment of subject, predicate, and copula. This logical criticism really

covers the point made by Green in the epistemological criticism. The central difficulty in Mill's discussion is that he virtually has no theory of the judgment at all, makes no analysis of it. He simply seems to have inherited his conception of the nature of the judgment and uses it in an uncriticized way. He works out no specific functions for the subject and predicate as Bradley does, for example. He does not see that the judgment is at once objective in its content and a psychological process, and that there is no antagonism between these two sides.

What should be emphasized is the incompatibility, the contradiction, between the two strains in Mill, the one growing out of experimental science which leads him to say that the import of the proposition is a matter of fact (coexistence, sequence, resemblance), not a mere connection of ideas. That is the analysis which he arrives at be following the content that scientific men are dealing with. He uses the term "phenomena" sometimes in the scientific sense, and at other times in the epistemological sense, as states of consciousness. His inherited psychology does not give him any outlet into the world of facts. Mill talks here as if he accepted the conception of the thing-in-itself back of sensation, but he does so simply for the sake of avoiding, as he thinks, an unnecessary controversy (see end of Intro.).

As a matter of fact Mill does not believe in things-in-themselves. Mill assumes a certain material which is distinct from the act of belief or disbelief and to which belief or disbelief is applied. He separates assertion from inference. He dissociates, disconnects, the inquiry into the questions which have proposed themselves from the methods or devices in solving those question. The questions seem some how to arise in the subject matter. He says that he wants to investigate the matters that are susceptible to belief or disbelief, yet he says on the very next page (Bk. I, chap. 1, sec.II, p.27-28) that he is discussing the act of belief. Yet he rejects the view of Locke because he says that would be simply facts about my mental history, not a fact of external nature. There he states the criticism that Green and others have made against Mill himself. That raises the question of what Mill really meant by objectivity. That will throw some light on his conception of the positive import of propositions.

On p. 53 he takes the table as a complex of sensations, which all becomes amalgamated in one fixed state of consciousness. He takes the table and resolves it into a number of qualities. These are the sensations or qualities through which we are conscious of the table. Furthermore, these sensations come, not at random, but according to a certain law. This is the positive side of Mill's theory of the object. Does not differ from Kant except that he speaks of it as a part of the order of the universe. All we know of the objects, says Mill, is sensations and the order in which they are bound together. When he comes to discuss relations he says that the only meaning to the term "causation" is that

when certain experiences are present other experiences will be present also. There we have the substance with its attribute, of thing with its qualities. That is the real positive side of Mill which he always has in mind in his conception of an object. His interest in that respect is very different form that of Locke, Berkeley, and Hume. They were interested in analyzing objects into these sensations. He takes that as all done, and treats the object as a synthesis of all those sensations through certain relations (coexistence, sequence, resemblance). The relation between two things, he says, is a series of facts into which both enter.

If we take him thus on his positive side, his standpoint is like that of Dewey, that thinking begins with things as related together in space and time and as like and unlike each other. But then at once his inherited psychology comes in of simply states of consciousness and his whole theory vibrates between those two points of view.

Mill is just as certain that coexistence, sequence, resemblance are "given" as that sensations are given. They are just as ultimate as sensations themselves, according to Mill. He thus does have all the time a criterion of objectivity. Hume's criticism, however, is just that he has logically no right to have such a criterion, though he must not be put back with Locke. What Mill has in mind is a certain organization of qualities in experience, and that is his real subject matter of thinking, from which it departs and to which it returns. But at the same time he has this other conception coming in all the time of the isolated character of the contents of consciousness, though he does not ever state it as baldly as Hume.

We might have expected that he would have resolved all general terms into resemblance. But he denies that the general term is resolvable into resemblances between things: he says that it is the common property between things. There is a statement of the principle of identity. He states that the connotation which a sensation possesses is simply resemblance or likeness to other sensations. Has he got a right to identify sensations with quality or is it a mere mark of denotation? Strictly speaking, according to Hume, the sensation in itself has only denotation, and hence it has no quality, no significance. And yet somehow when you compare them together, according to Mill, they have connotation or significance. The sensation of "blue" if taken by itself would not be blue at all, but a mere shock or "this" (Bradley). There is the whole difficulty. He vibrates between sensation as meaning a bare existence without meaning and a systematized total experience which is an existence with meaning, that is with qualities that are arranged in coexistence, sequence, and resemblance. That is exactly like Lotze's theory, with his things and qualities arranged in space and time, on inspection being capable of being arranged according to the principle of position, distinction, comparison. Mill denies in one place what he asserts in

another place. He resolves the whole judgment of coexistence into conjunction or coexistence of attributes. But attributes are abstract universals. On the top of p.81 he flops over and says that very attribute is a point of fact: he jumps from the hypothetical statement over into the assertion of the coexistence of objective phenomena or things.

The logical point is that it is impossible to assert one fact as always accompanying another fact. You cannot, in other words, generalize the coexistence, excepting on the basis of a statement of law, of relation. You cannot speak of "day" if you stick to a single day. You have to generalize day as distinct from night, and this day from other days, etc. Mill assumes that reality is the particular instead of the whole system within which certain particulars are distinguished.

From this point on Professor Dewey goes on with the discussion of the copula.

DEWEY'S REVIEW OF THE DISCUSSION ON MILL

Before taking up the copula, however, Professor Dewey will give a review of the discussion of Mill.

All this discussion of names, connotation, ect., is really a discussion by Mill of the possible ways in which the mind may approach things, possible predicates of the judgment. Then his chapter on things is a discussion of denotation, of the various kinds of things viewed by the mind, a discussion of possible subjects of the judgment. Then the discussion of the import of the proposition.

Mill (on p.121) makes a statement of what the real subject and predicate of the judgment is. The subject of every proposition is some one or more facts or phenomena of consciousness (of experience) and what is predicated of these phenomena is either existence. coexistence (order in space), sequence (order in time), causation, or resemblance. But existence and causation may be dropped out, so we get the predicate reduced to order in space, order in time, and resemblance. Mill simply says that every subject is facts, phenomena, and the predicate is always relations (coexistence, sequence, resemblance).

Dewey brings out the point that taken at large that is equivalent to his own statement of the judgment, that the subject is existence and the predicate is ideal, relation, synthesis. So much then for the general statement which Mill gives on p. 121.

On p. 93 Mill says that the import of the proposition as a portion of our theoretical knowledge, say in "Man is Mortal," means that the attributes of man are always accompanied by the attribute of mortality. This is to reduce all judgment to the hypothetical judgment. But he says that the practical use of a proposition is to apprise or remind us of what we have to expect: the attributes of man are a mark of

mortality. Not that these two things are connected, but that when we have one we may expect the other; the one is the indication, mark, sign of the other. These two statements are at bottom identical. He then says that you can take the proposition either as an ultimate result (then it means that the attributes of man are always accompanied by the attribute of mortality), or we may take it as a means for the establishment of other propositions, take it as instrumental (then it means that one fact,man, is an evidence or mark of another fact, mortality). Taken in this latter way it is an inference, that one thing is a mark or sign of another thing. That brings together the two aspects of Mill: what the proposition means in itself as an ultimate result is outside the scope of reasoning. But when we bring it within the scope of reasoning, then it is only a question of investigating the meaning of the proposition. Is one thing a mark of another? Reasoning now is simply the question of investigating the validity of the proposition, instead of being something that is done with the proposition or which supervenes after you have got the proposition.

So Mill is not consistent in his statements, for this is just Dewey's point of view. Of course, in the proposition "All men are mortal" you cannot say that one set of attributes (which are man) is accompanied be another attribute (mortality), for "mortality" is one of the attributes essential to man; hence the first set of attributes represented in the subject cannot be taken as standing for man in any adequate sense. Mill works backward and forward from the hypothetical connotative statement of of the intension to the application of that intension to the individuals; so he has to go back on this formal statement of the proposition as a connection of attributes and state the judgment as involving things. He gives no explanation of the way in which you can pass from the general to the individual or from the individual to the general.

Professor Dewey then himself reports on the intermediate chapter on "Things Denoted by Names."

Mill begins by giving a general classification of feelings or states of consciousness on one side and things on the other. These are the subjects of intelligible discourse; things of the psychical world and things of the physical world. On p.49. he recognizes and states all the criticisms which Green and others have brought against him. He insists that we must distinguish between the mental image and the thing, the sensation and the object of the sensation. He says that the whole thing is sensation-of-white, that it is unfortunate that we have the same word for both the mental state and the object or quality designated by the mental state. On p.53 we have the contradictory statement that the sensations are all of which I am directly conscious. Here, he says tangible form, size, etc., are all sensations, while before he says that we must carefully distinguish then as

qualities of the object from the sensations as mental states. The empirical object, the object as known (contra the unknown noumenal object) is simply a group of sensation, he says. He falls into the very error against which he warns us. What mill on his positive side means by the object is that it is the connection of experiences which controls our getting of other experiences ; this is the standpoint also of Dewey.

Mill thus has a double point of view. He has before said that we must distinguish our sensations of white from the white object. On p.50 he calls the object the group of sensations.

Unknown Object--------Sensations (sensible experiences)
Empirical Object------Sensations

Mill is continually confused in this way: at some times he talks of the white as sensation and of snow as the unknown object which excites the sensation; at other times he recognizes that the snow is simply an empirical object, and that "Snow is white" means merely that when we have the experience "snow" then we have the other experience which we call "white." The latter is a concrete synthesis of qualities and characteristics, and the former is an isolated quality or characteristic which is referred back to the other.

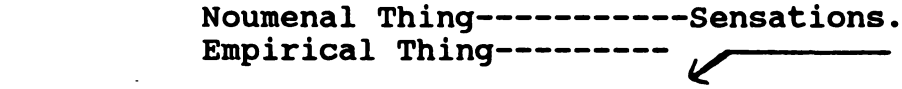
The point is that when Mill is trying to get back to mere existence as the given, then he says that the unknown object is of no significance in logic, that all we know is the isolated particular sensation "white." But when he wants to give the analysis of a proposition he falls back on white as a factor in a total--snow is white, paper is white, etc. As long as he follows the other tack he starts from a systematized experience, from a total experience, the whiteness-of-the-snow, which has no distinctions of physical and psychical in it, but simply the substantial and the adjectival. In one sense the substance has disappeared in the unknown object. In the other sense the substance appears as the fixed connection of sensory experiences.

Mill subdivides attributes into three kinds: quality, relation, and quantity. Sensations now appear as attributes or qualities of bodies. Here is the double sense. Now they are referred to some unknown; now they belong to the thing. "White" form the latter standpoint is a part of the aggregate or assemblage "snow is white." But, of course, even "white" is ultimately only an assemblage of attributes. Snow (one set of attributes) is accompanied by white (another set of attributes). So with "Man is mortal." This makes the judgment wholly hypothetical; there is no existence, as such, asserted at all. On p. 58 there is an express statement that when we are thinking of it in itself we call it sensation and when we are thinking of it as referring to something else we call it quality. But Mill does not go into the question why we sometimes take it in the one way and

sometimes in the other way. But here is the express statement that sensation and quality are but different names for the same thing. He here says that it is the "assemblage of phenomena" which is the cause of the sensation, and not the unknown object. Here Mill all but gets to Dewey's point of view. in all judgment we are after the constitution of things, but we cannot get back of the constitution of things as a whole.

Then Mill discusses relations. The series or assemblage is a relation (cf. p.60). Sensations must be given to us as related. So our empirical object now turns out to be related attributes. You have simply got attributes attaching to attributes, and so on indefinitely, and we have the purely hypothetical judgment. But when he comes to define relation he says that relation is a mutual participation in a common fact, and it is by this mutual participation in the common fact that the attributes are related, and relation and attributes are two sides of the fact of thing. Here we get to the predicate and subject aspect again as Dewey would state it.

In the discussion yesterday I had taken up two kinds of attributes, quality and relation, that Mill discusses, and tried to make the point that he was discussing the same reality under both these heads. That the qualities are not isolated but referred to facts, assemblage, and that this assemblage is itself determined by the general order or constitution of the universe. When he is talking about qualities he is really talking about a system of differences in identity, only he is emphasizing the differential side; the relation side has fallen into the background. When he comes to discuss relation, the other side comes out, that there is an identity which holds together or permeates the particular differences or sensations, and into which they may enter. The consciousness of succession is not a feeling over and above sensations, but the sensations being given the consciousness of the relationship is itself also given: there is no distinction. The same will hold for resemblance. He says that resemblance in the highest degree is not the same as identity. His metaphysical prejudice against the particular comes out here, against the identification of the feeling with the object of the feeling.



Sensations are sometimes interpreted as the qualities of the empirical thing, and at other times as mere states of consciousness over against the noumenal thing. Hence there comes in that twofold meaning of the term "phenomena", sometimes equivalent to a mere state of consciousness, and at other times a series of experiences giving the quality of the empirical thing. Now when he says that my feeling today cannot be the same in quality as the one I had yesterday, he

is emphasizing the particular character of sensation again. What I have today, he says, may be exactly like that yesterday, but yet distinct. But this is an obvious contradiction. They may both have the same reference, the same meaning, but they are different as existences. This is what he had in mind perhaps. This is the problem of identity and difference. The unsolved point is this. Where is the resemblance found, in the attributes or in the individuals? Mill implies that the attributes are the same, that the individuals resemble each other in their attributes. Socrates is a different individual but has the same attributes as other individuals. That says that the basis of all induction is resemblance of attributes. Otherwise you would have to say that some individuals have attributes which resemble attributes which other individuals have. The mere fact that one set of attributes resemble another set gives no basis for inference. But if you can say that they are identical, there is not that fallacy, at least.

Mill takes up quantity next. He says we distinguish a gallon of water from ten gallons of water and from a gallon of wine. The sensations are not precisely alike or unlike, but partly similar and partly dissimilar. That in which the gallon of water and the gallon of wine are like each other and the gallon of water and the ten gallons of water are unlike is what we call quantity. Hence we have to recognize likeness in things otherwise different and difference in things otherwise alike. In one case you have an identity in different things. In the other case you have a difference in identical things. Hence identity in difference = difference in identity. Quantity (p.63) is that which enables us to find an identical factor in different things, which is comparable to the differences which are found in a quality of one and the same kind. The point here is the fact that we get back simply to a somewhat complicated kind of identity in difference. Everywhere here Mill virtually falls back on a system, the differences of which may be called qualities, and the identity, relationship, both within this whole or system. So he says (p.62) that the gallon of water is that which excites in us various sensations (here is the noumenal thing), whereas at other times he says that these sensations <u>are</u> the gallon of water (here is the empirical thing).

Going back to the distinction between the general and the singular, the general is a name which can be affirmed of each of an indefinite number of things. There Mill falls back on the assumption of the existence of definite things. The attribute is the mediating term through which the name becomes general. On p.77 he criticizes the notion that the judgment is placing an individual under a class. He insists that the general term applies to individuals not immediately but mediately, that class is the result of predication, and therefore cannot be used to define the judgment. The class exists as the result of generalization. The individuals are constituted for the first time a class when this generalizing process takes place. Every connotative general

proposition asserts that certain attributes are asserted of every individual which has certain other attributes. His general proposition, in which both subject and predicate are connotative terms. is identical with the principle upon which all reasoning depends. So much for his statement that the proposition has nothing to do with reasoning.

If objects possess certain attributes, then they possess these other attributes: this is really a hypothetical judgment. The attribute or sensation is always referred to something or phenomena or fact. The possession of attributes by things simply means that the attribute is a part of the thing. What we call the attribute and the thing belong together; they are but two names for the same fact. This is Dewey's point of view. For Mill, the abstract term simply isolates the connotation of the general term and leaves out of account its denotation. The assumption here is that the concrete statement comes first, and the abstract statement is secondary and derived. But according to what he has said before it is the other way around. Dewey says that this can be just turned around, and say that the concrete general proposition simply makes use of and generalizes previous abstract ones. This shows that Mill accounts now for the general by reference to the abstract and again for the abstract by reference to the general. Strictly speaking there cannot be any absolutely concrete or absolutely abstract judgments, but we can emphasize these aspects or functions within the judgment.

There are two things, according to Mill, which possess denotation only, proper names and sensations in themselves, which are practically equivalent to Bradley's "this." Then there are connotative terms which give you meaning. But Dewey says that instead of their being two kinds of terms, that every content of a judgment has both a denotative function, function of direction attention or holding existence before the mind, and the function of attaching meaning to that existence, of qualifying it in certain ways. In the proper name we have a term that is used chiefly for calling attention to certain existences. Cf. the numbers on the rooms in a hotel or on the cells in a prison. Any given number does not tell you whether it is a single or a double room or whether it has a single or a double bed in it. Yet it has a certain sphere of meaning in it. "John Smith" has at least the connotation that he is a man. We never denote simply by itself. If a man points over there and says "That is John Smith" this presupposes that it is a man. But this is taken for granted in the judgment for the sake of building up a larger connotation. In one sense this "John Smith" is a complete system of connotation. In another sense it is taken as given for the sake of asserting more meaning. If a term were merely denotative, it never could serve as subject of a judgment; it would be a mere gesture. If a term had no meaning whatever we could not attach any meaning to it. If I simply point, the question at once arises, "What do you <u>mean</u> by pointing?" To use Mill's illustration from <u>The Arabian</u>

Nights, the chalk-mark on the house as denoting the house meant that they were going to rob the house. Instead of taking you away from meaning, it localizes the meaning. The marks on the fence made by a child cannot enter into a judgment, as such; it is only as they give a focus for locating a certain area of meaning. The connotative is on the other side. You have then

Subject	Predicate
Concrete	Abstract
Particular	General
Difference	Identity
Denotation	Connotation
Thing	Relation
Quality	(Attribute)
(Attribute)	(Thing)

It is purely a functional distinction. The only way to distinguish between these two sides is to see the use each is put to in the judgment. Only in so far as Mill attempts to draw a line between these two, so far he can assert that propositions (assertion) have nothing to do with inference. If you keep exclusively on one side you have merely assertions, and on the other side merely concepts. But the moment he comes to relate the one side to the other then he has to recognize that the judgment is an inference.

LIST OF REFERENCES

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