GEORGE HERBERT MEAD

THE PHILOSOPHY OF EDUCATION

edited and introduced by **Gert Biesta** and **Daniel Tröhler**

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INTRODUCTION

George Herbert Mead and the Development of a Social Conception of Education

Gert Biesta and Daniel Tröhler

George Herbert Mead was born on February 27, 1863, in South Hadley, Massachusetts. From 1869 onwards he lived in Oberlin, Ohio, where his father, a Congregational minister, was a professor at Oberlin Theological Seminary. In 1883 Mead graduated from Oberlin College. For the next four years he worked as a teacher, railroad surveyor, and private tutor before he moved to Harvard in 1887 to study philosophy with, among others, Josiah Royce. One year later Mead enrolled at the University of Leipzig where he studied philosophy with Wilhelm Wundt, Max Heinze, and Rudolf Seydel. Early in 1889 he moved on to the University of Berlin, where he studied philosophy, psychology, and education with, among others, Hermann Ebbinghaus, Wilhelm Dilthey, and Friedrich Paulsen. In 1891, before he managed to finish his Ph.D., Mead returned to the United States to take up a teaching position at the Department of Philosophy of the University of Michigan, Ann Arbor, where he worked under the chairmanship of John Dewey. In 1894, Mead moved with Dewey to the University of Chicago, where he would continue to work until his death on April 26, 1931.

Together with Charles S. Peirce, William James, and John Dewey, Mead is one of the founders of American pragmatism. Whereas Dewey and, to a

lesser extent, James had a major impact on the theory and practice of education, Mead is most renowned for his work in philosophy and social psychology, particularly as the main source of inspiration for *symbolic interactionism*—the label Herbert Blumer gave to Mead's work (Blumer 1969; Joas 1989, 235). Mead did, however, have a practical interest in education which was stimulated by his collaboration with Dewey at the University of Chicago and which was part of his wider involvement in social reform in Chicago in the first decades of the twentieth century (Barry 1968; Cook 1993). Mead's only son was enrolled in Dewey's Laboratory School and for several years Mead served as president of the school's Parents' Association (Mead 1903). With his wife, Helen Castle, Mead edited Dewey's lectures on the school, which were published in 1900 as *The School and Society* (Dewey [1900] 1976). Mead also contributed to two educational journals, *School Review* (Mead 1907a) and *Elementary School Teacher,* of which he was an editorial board member from 1907–1909 (Mead 1907–1908a; 1907–1908b; 1908–1909b; 1908–1909c; 1908–1909d; 1908–1909e). From 1908 until 1914, Mead served as chairman of the Standing Committee on Public Education of the City Club of Chicago (Mead 1912a). In this role he was actively involved in the writing of reports on the Chicago public library system, on vocational education in the Chicago public school system, and on the funding and administration of vocational education in the public schools of the state of Illinois (Mead, Wreidt, and Bogan 1912). Mead continued to play an active role in the City Club and the work of the University of Chicago Settlement until the early 1920s. During this period he was also one of the vice presidents of the Public Education Association of Chicago (Cook 1983, 99–114).

Mead's active involvement in the Laboratory School and in educational and social reform in Chicago is reflected in his publications from this period, many of which deal with practical educational issues such as science education (Mead 1906a; 1906b), vocational education (Mead 1908a; 1909b; 1915), and the wider educational and social situation in Chicago (Mead 1907b; 1908b). Except for two earlier papers, one on play and education (Mead 1896) and one on the child and his environment (Mead 1898), Mead only published two more theoretical papers on education, one titled "Industrial education, the working-man, and the school" (Mead 1908–1909a), and the other titled "The psychology of social consciousness as implied in instruction" (Mead 1910b). This, however, is not all there is to say about the significance of Mead's work for the development of a pragmatist conception of education. One important factor to bear in mind is the close relationship between Mead and Dewey. Mead and Dewey entertained a lifelong personal friendship. In Ann Arbor and Chicago their family lives were interwoven to such an extent that, as Dewey recounted, "there was hardly a day we did not exchange visits" (Dewey [1931] 1985, 22). With regard to their intellectual relationship there is ample evidence of the influence of Dewey on Mead (Joas 1989; Cook 1993).

But Mead also had a formative impact on Dewey's thinking. In his eulogy at a memorial service for Mead in 1931, Dewey declared that Mead's ideas on social psychology and the social interpretation of life and the world had worked "a revolution" in his thinking (Dewey [1931] 1985, 27) and that he disliked to think what his own thinking would have been were it not for the seminal ideas which he derived from Mead (ibid., p. 24).[1]

Although Mead never wrote a comprehensive treatise on education, his work contains many original insights into the process of education, to the extent that, as Renger has argued, it constitutes "a genuine philosophy of education" (Renger 1979, 44). The building blocks of this theory can be found in the articles and chapters Mead published during his lifetime, particularly a set of six seminal articles which were published between 1909 and 1913 (Mead 1909a; 1910a; 1910b; 1910c; 1912b; 1913) and which, according to Cook, contain "almost all the major ideas of his mature psychology" (Cook 1993, 66). Several authors have used these and other publications to reconstruct Mead's theory of education (see particularly Renger 1977; 1979; 1980; Biesta 1994; 1998; 1999; 2005).

Whereas Mead himself never published a theory of education, there was at least one occasion when he had the opportunity to explore educational issues in a systematic manner. This was in his course on the philosophy of education at the University of Chicago. Between 1905 and 1911 this course was offered four times: in 1905–1906, 1908–1909, 1909–1910 and 1910–1911. The present volume contains the lecture notes of the course Mead gave in 1910–1911 (Mead 1910–1911). The typescript, which was compiled by Juliet Hammond, a student in the Graduate School of Arts, Literature, and Science (Annual Register 1910–1911 of the University of Chicago, 495), consists of 196 numbered pages containing thirty-seven lectures and three additional pages. Although the typescript is not a verbatim account of Mead's lectures, and although one has to bear in mind that the purpose of the course was not exclusively to present Mead's own views on education, the lectures do provide

1. Evidence of this influence can, for example, be found in a seminal paper Dewey wrote on the theory of emotion (Dewey [1894–1895] 1971). In a footnote Dewey credited Mead with having provided the key ideas for his theory. "Being unable to do anything with these cases, I called them to the notice of my friend and colleague, Mr. G.H. Mead. The explanation given, which seems to me indubitable, is his. The relation between the vegetative and the motor functions, given above in discussion of the pathological emotion, and to be used again below, I also owe to him. While I have employed the point only incidentally, Mr. Mead rightly makes it essential to the explanation of emotion and its attitudes, as distinct from the identification and description which alone I have attempted. I hope, therefore, that his whole theory may soon appear in print." (Dewey [1894–1895] 1971, 167). Apart from an abstract of a paper on emotions (Mead 1895), Mead never published his theory.

a theory of education that is highly consistent with the views Mead espoused in his other publications (for a reconstruction along these lines see Biesta 1998, 1999). We could say, therefore, that the lectures contain a "translation" of Mead's more general ideas about the social origin of meaning and reflective consciousness into the field of education. In this respect the lecture notes come closest to Mead's own formulation of a theory or philosophy of education. They are therefore an important source of information for anyone who is interested in Mead's contribution to the development of a pragmatist theory of education.

The theory which emerges from Mead's writings centers on the claim that meanings cannot be handed down to the learner but arise only through the reaction of the learner. The learner, in other words, is the one who makes meaning rather than simply receives it. Since Mead holds that education is a social process, the response of the learner is fundamentally a response to this social situation. This, in turn, means for Mead that the "material" of education is itself the product of a social relationship. The meanings in education do not exist objectively but grow out of social intercourse and only exist in social intercourse. From this it follows that the communication of meaning in education is not a process of imitation or copying. Mead depicts education as a process of the creative formation and transformation of meaning. He shows that the social situation is, not only the matrix for the emergence of meaning, but also the matrix for the emergence of reflective consciousness. For Mead, the purpose of education is not only that of the communication of meaning, but also that of the introduction of the method of thought. Yet thought is not something that can be handed down to learners; it is again something which learners must gain for themselves, and they can only gain this through engagement with and participation in social situations. Education, according to Mead, is therefore about the production of particular social situations, situations that facilitate the communication of meaning and the emergence of reflection.

In this introduction we present an overview of the main ideas of Mead's social conception of education and explore the wider intellectual, social, and historical context of his work.

A Social Conception of Education

In the *Annual Register* of the University of Chicago, Mead's course was announced in the following way:

> Philosophy of Education—The point of view will be that of the gradual socialization of the child, and the part which education plays in this. Both formal and informal education will be considered, especially in their

> relation to each other. On the one side the development of the child will be considered as the justification for a psychological theory of education, while on the other side the demands of the society into which the child is entering, will suggest the sociological theory. The inadequacies of each will be indicated, and the necessity of replacing them by a social conception of education which can recognize both the child and society at once. The chief features of present school practices and theory will be criticized from this standpoint.[2]

The central claim Mead puts forward in his lectures is that all education is social interaction and that "(a)ll intercourse with children is in communication" (PE14: 84).[3] The exploration of the social or communicative character of education is both the focus of Mead's course and the perspective of philosophy of education more generally: "The function of communication in education and of education in communication is the central point in the philosophy of education" (PE13: 76). The central concept in Mead's conception of education is *meaning.* In the lectures Mead states that he wants to look at education from the point of view of "the conveying of meanings" (PE37: 190). The question that guides Mead's educational thinking, therefore, is how meaning can be communicated—both from one person to another and from one generation to the next. The answer he develops to this question in based on a view which conceives of human action and interaction in terms of meaning. For Mead, human action and interaction are not only *guided* by meaning; Mead also argues that through our actions and interactions we are constantly engaged in the *creation* of meaning.

The first, and in a sense most fundamental, aspect of Mead's conception of education lies in the simple claim that in education meanings only arise through the response of the learner. This idea goes back to Mead's behavioral conception of meaning in which it is argued that the meaning of an object—physical or social—is derived entirely from our reaction to it (Biesta 1998). Mead's point here is that objects do not have any meaning as such; they do not have an "objective" meaning. Their meaning lies in what they mean *to us,* and this is to be found in how we respond to them. To "get" the meaning of an object is, in other words, not a process of discovery but a process of *creation.* This is not to say that any meaning will do. Both with respect to physical and social objects, some responses will be more adequate, more appropriate, or more functional than others.

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2. *Annual Register* 1905–1906, University of Chicago, 139.

3. All references to the typescript are as follows: PE, lecture number, page number of the original typescript. The three pages that make up Lecture 38 were indicated in the typescript as a, b, and c.

The educational implication of this view is that meanings cannot be handed down to the learner, but arise "only through the reaction of the learner" (PE37: 190). The learner, in other words, is the one who *makes* meaning in the educational process; the learner does this through his or her *response.* Since education is a social process, a process in which meanings are communicated, the response of the learner is fundamentally a response to this social situation. According to Mead, "(t)he attitudes we take in response to other persons are the processes in getting meaning" (PE38: b), which means that the learner "must get the meaning thru [sic] his own response to certain social situations" (PE38: a). This in turn implies that the "material" of education is itself "the product of a social relationship" (PE37: 191). Meanings, in other words, do not exist objectively, but "grow out of social intercourse" (PE38: a) and only exist *in* social intercourse. From this it follows that the communication of meaning is not a process of imitation. For Mead, education is a process of the creative (trans)formation of meaning. We must acknowledge, Mead writes, that "the very process of acquiring, changes the thing acquired"—"the very process of acquiring causes change" (PE28: 156).

The recognition that meanings only arise through the response of the learner marks a clear distinction between what Mead calls "old education" and his own approach. Old education, he argues, has neglected and even wiped out the attitude of the child (PE16: 92–93). But this attitude is indispensable, because in education "the whole of the technique of the process ... does not turn on the material provided by elders, but falls around the response of the child to this material" (ibid.). Lessons, books, lectures, materials only mean something to the extent that they mean something to the learner. It is not only the learner's "task" to make sense of what is presented to him in the educational situation; the meaning of what is presented totally depends upon his or her response.

One could argue that this is all there is to say about the process of education from the standpoint of the conveying of meanings. But the purpose of education is not simply to evoke *any* response from the learner; the purpose of education is to *communicate* meaning, and, for that reason, the key question is how and to what extent the response of the learner can be "organized." Moreover, the purpose of education is not simply to organize the response of the learner; the purpose of education is to facilitate the emergence of what Mead calls *consciousness* of meaning—a consciousness of the difference between the artefacts (sounds, gestures, signs) we use in communication, interaction, and reflection and what these artefacts mean—since this is what makes conscious reflection (thinking) possible. This is why Mead stresses the importance of acknowledging that education is—and should be—a *social* process. Education cannot simply consist of presenting learners with artefacts such as books, objects, and materials. Learners will undoubtedly respond to such artefacts and in doing so will give meaning to them. But this response, and the ensuing meaning, will be completely idiosyncratic.

The reason why simply presenting the learner with artefacts does *not* count as a case of the communication of meaning is because the *meaning* of artefacts is not to be found in the artefacts themselves, but in how people *respond* to and *use* these artefacts. The meaning-to-be-communicated is to be found, in other words, in the social practices in which objects and artefacts have their meaning. This is why Mead holds that "meanings grow out of social intercourse" (PE38: a) and, even more importantly, that the child must get the meaning through his response to "certain social situations" (ibid.).

From this it follows that for Mead the most important, if not the only possible, "mode" of education is that of *participation*—although it should be noted that Mead doesn't use this particular term in the lectures. For Mead, the communication of meaning takes place in the process of social cooperation and coordination, and the only way in which meaning can be communicated is if the learner participates in this process of cooperation and coordination. We must realize, Mead writes, "that meaning arises only through the reaction of the learner" (PE37: 190). If education is not social, then "we can simply give a lesson"—and "this latter has been the point of view" (PE22: 127). "Shall we assume," Mead asks rhetorically, "that the mind is an organ in the body like the stomach or the intestines and that it works over what it is given? This is an easy way to take and then teaching will be the furnishing of material" (PE22: 128). But once we acknowledge that meanings grow out of social intercourse, that is, that "they are not there and then expressed," we have to recognize that "what the child requires is not poured into a receptacle" but that "meaning must arise in the child's consciousness in some sort of intercourse with others" (PE38: a).

This further implies that the process of "the conveying of meanings" (PE37: 190) is *not* "a reproduction of the acts of another" (PE37: 189). It is not, in other words, a process of imitation, but a process of action and reaction, of social stimulation and response. It is, in other words, a creative process, a process in which meaning is constantly made, rather than reproduced. The upshot of this is indeed that "the very process of acquiring, changes the thing acquired" (PE28: 156). If meaning can only be communicated through the response of the learner to a social situation, then it means that the very "mechanism" of education is itself transformative. Change of meaning is the rule in Mead's social conception of education, and identity of meaning the exception.

Mead's approach also has important implications for our understanding of the curriculum, since for Mead the meaning of the curriculum is not to be found in educational artefacts but in educational *practices.* This is what he has in mind, when he writes that the "material" of education is itself "the product of a social relationship" (PE37: 191)—a relationship of which the child or the learner is a constitutive part and not simply the passive recipient. This view has important implications for educational practice—and plays an

important role in Mead's work on vocational education (Mead 1908a; 1909b; 1915)—since it suggest that education should not be organized around the teaching of specific subjects, but around the "presentation" of practices in which learners can take part.

Although in this respect one might say that Mead's conception of education is a theory of practical cooperation and coordination, he does emphasize the importance of reflection and abstraction. The problem of education, according to Mead, is not only that of the communication of meaning but also "that of introducing a method of thought" (PE35: 186). He acknowledges that this method "is not a thing that can be transferred only, it is a thing which one must gain for himself" (PE33: 175). It is a method in which the learner must be trained, but "the training must arise out of [the child's] own experience. ... It must arise out of problems within the child himself, for he is responsible for making his own abstractions. ... He can't take over abstractions, but the problem and the abstraction should arise out of the child's own consciousness" (PE33: 178). The abstractions, in short, must arise in the child's own thought process. Mead emphasizes, however, that the thought process is not something that takes place in the privacy of the child's mind; "before the child can get the meaning of any thought," Mead writes, "he must get it in a social situation" (PE22: 130). This has everything to do with Mead's account of the emergence of *consciousness* of meaning which "appears as a response to the conduct of another" (PE15: 86). It is the social situation, in other words, which ultimately occasions consciousness of meaning and hence abstract thinking.

What becomes clear is that in his social conception of education Mead returns again and again to the social situation, the situation of social coordination and cooperation, as the matrix of all education. It is the matrix through which he understands education as a process of the communication of meaning. It is also the matrix which accounts for the emergence of reflective consciousness. In all this, we can see a theory of education in which the child is not simply on the receiving end of the process. Education is not the transfer of meaning from the teacher to the learner, from the parent to the child, from the current generation to the next generation. Education is a process of communication in which the child is as much a meaning-maker as the adult is. For Mead, the child is not an empty vessel that has to be filled; the child ultimately is a source of *new* meanings and of the *renewal* of meaning.

Philosophies of Education at the Turn of the Twentieth Century

The idea that education is concerned with the future—both the future of the child and the future of society—was not an invention of the pragmatists but

had already emerged in the eighteenth century. Some have credited Rousseau's *Emile* (published in 1762) as the key-factor in this change of view, but it is more correct to see it as the outcome of a range of different developments. These include (Tröhler 2006a):

- the rise of the natural sciences in England in the seventeenth century;
- the impact of the rise of capitalism on societal life around 1700 and the reaction of republicanism with its own concept of virtue toward it;
- the decreasing persuasiveness of the idea of original sin, which meant that Protestant energy was no longer directed toward taming the corrupted soul but rather toward its earthy redemption;
- the rise of the idea of the nation-state at the end of the eighteenth century.

The changes in economy and commerce evoked public criticism in which commerce was accused of inciting the selfish passions of the people. In England, for example, this led to a big public debate about the political impact of the new capitalist class (most famous was John Trenchard's and Thomas Gordon's publication of *Cato's Letters,* 1720–1723). A different, more educational reaction can be found in the context of Swiss Protestant thinking. The idea was that the souls of the young should be strengthened in order to resist the temptations of commerce, wealth, and power. A strong soul may be exposed to the world of money without becoming corrupted, selfish, or destructive. This educational "solution" made it possible to accept economic and social progressivism by safeguarding the world from the possible dangers of modern economy. Ever since, questions of future and progress were in a knee-jerk manner connected with educational strategies and devices. This played an important role in the development of the mass-school systems in many different nations during the nineteenth century.

These developments created a demand for the clarification and legitimation of public education at an intellectual level, all the more because in the course of the nineteenth century theological and metaphysical certainty about education had declined. These questions were raised primarily in the context of teacher education. Two different but nevertheless related types of books were written to serve this purpose, the so-called *histories of education* and the *philosophies* or *theories of education.* Increased book production of these types can be found in Germany, France, England, Scotland, Switzerland, the United States, and other nations at the beginning of the last third of the nineteenth century (see also Tröhler 2006b).

Basically, the European *philosophies of education* can be put into three categories. While all of them investigate the so-called "nature of education," this nature is traced backed either to (a) pure reason in the tradition of neo-Kantian literature; (b) to the phenomenon of social practice; or (c) to the

human soul. The third genre goes back to Wilhelm Dilthey, the "father" of the so-called German *Geisteswissenschaften* (Humanities[4]) and advisor of Mead's doctoral dissertation during his stay in Berlin. The idea of *Geisteswissenschaften* is based on the assumption that the modern sciences (*Naturwissenschaften*) are successful because they have a clear method, but that there is a world for which those methods are not appropriate. This is the inner world, the world of *Geist* [spirit], which has to be explored by an alternative method, the method of understanding, or hermeneutics. While the sciences deal with objects that come to our consciousness from the outside as singular phenomena, Dilthey argues that the *Geisteswissenschaften* understand those phenomena as original inner facts, as "living coherency," as organically interrelated phenomena (Dilthey [1894] 1957, 144). The "paradigm" of the natural sciences aims at causal explanation of isolated phenomena, avoiding an understanding of them; the "paradigm" of the *Geisteswissenschaften* aims at understanding. "Die Natur erklären wir, das Seelenleben verstehen wir.... Der erlebte Zusammenhang ist hier das erste, das Distinguieren der einzelnen Glieder desselben ist das Nachkommende." [*We explain nature, but we understand the inner life.... The experienced coherence is primary; distinguishing the single elements of it is secondary.*] (Dilthey [1894] 1957, 144).

In his *Philosophy of Education* Dilthey distinguishes between three different faculties of the human soul: perception, the emotional transformation of perception, and the will to act (Dilthey [1888] 1958, 63ff). At the beginning of the psychic process Dilthey locates the impulses that stimulate the soul, and at the end of it he locates the human will to act. In between the first and the last step he constructs a kind of a black box in which impulses are transformed into emotions, which will eventually constitute the determination to act. The three faculties are characterized by a twofold teleology. Firstly they are designed to perfect themselves, but secondly they can become perfect only in mutual calibration. The teleological character of the soul corresponds to four dimensions of human life: a) sustenance and b) progression of the individual existence, c) sustenance and d) progression of human kind (Dilthey [1888] 1958, 63). Education, according to Wilhelm Dilthey, is the tactical effort to perfect the teleological structure of these three elements of the soul (perception, transformation, will to act), regardless of what kind of impulses the soul is exposed to. Following his line of argument, *The Philosophy of Education* is both the historical reconstruction of the evolutionary aspect (starting in prehistory, looking at initiations and acts of consecration) as well as the analytical description of the inner proceedings of the soul (Dilthey [1888] 1958, 71ff).

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4. *Geisteswissenschaften* matches most closely to the English "Humanities." However, in the English equivalent the specific Lutheran understanding of *Geist* [spirit] is absent.

Dilthey's unmistakable opposition toward the modern sciences has its historical background in the most successful psychological research of his time at the University of Leipzig under Wilhelm Wundt. Wundt's approach was very much affected by the modern sciences, i.e., by the attempt to explore psychological facts by scientific means through quantifying phenomena produced in the laboratory. Initially this type of psychology was not so much seen as alternative to philosophy per se, but as a science that while rejecting "old" philosophy did ask for a new type of philosophical reflection. In opposition to Dilthey, Wundt claimed that it is an error to believe in "two distinct different ways to recognize objects," a scientific and a philosophical one, and hence buttressed a philosophy that respected quantitative data (Wundt 1885, 17f). It is in this spirit that James McKeen Cattel, the first American who made his doctorate under Wundt, wrote in 1883 from Leipzig:

> A change has taken place in philosophy during the past twenty years, somewhat similar to the change that took place in the natural sciences during the preceeding [sic] twenty years. We now hope to arrive at a true philosophy ... Philosophy has become a science ... (W)e no longer believe that a Hegel can, neglecting facts and experience, evolve certainty from his consciousness and intuitions (quoted in Sokal 1981, 67).

The "new" philosophy took a quantifying approach to the soul, or at least to those psychological phenomena that could be quantified (Hornstein 1988, 2). It resulted, for example, in the quantification of intelligence (Alfred Binet, William Stern) and became during and after the first World War a core means of classifying soldiers, students, and pupils (Hornstein 1988, 8ff).

Pragmatism and Philosophy of Education

At the turn of the twentieth century there were obviously many different ways of perceiving education in terms of social progress. The different conceptions depended upon the way people understood the human soul, their visions of the best form of social life, their convictions about how to think accurately, and their ideas on the interrelation between man and nature. One of the main tasks in creating a new philosophy of education was to challenge the existing ones. John Dewey in his 1899 *Lectures in the Philosophy of Education* opposed the then dominant educational theories by accusing them of being dualistic and by stressing the value of experience, communication, and coordination (Dewey [1899] 1966). His critique of dualism did, not only question traditional metaphysical philosophies of education, but also dualistic approaches like Dilthey's. But Wundt's approach was not a valid alternative, either. While Dilthey's dualism might be called ontological, separating nature and *Geist,*

Wundt's dualism was methodological, separating stimulus and response.[5] Nevertheless, having a psychological laboratory at universities had become a must, and one was installed with Dewey's appointment in Chicago in 1894. The *Annual Register* of the University of Chicago proudly informs:

> The psychological laboratory is situated on the third floor of the Ryerson Building, adjoining the physiological laboratory, and consists of one spacious room, with three smaller rooms for research work. The dark room on the same floor, belonging to the department of Physics, is available for experiments on vision. The collection of psychological apparatus is an excellent one, about $1,900 having thus far been spent for this purpose. It consists largely of instruments useful for class-room demonstration and for the usual experiments of a laboratory course.[6]

After two years of experimenting, the members of the department of philosophy published some of their results in the journal *The Psychological Review* and at the same time as a first volume of a series called *University of Chicago Contribution to Philosophy.* This first volume was called *Studies from the Psychological Laboratory Directed by James Rowland Angell* and had articles by James Rowland Angell and Addison W. Moore, one by Louis Grant Whitehead, one by James Rowland Angell and Simon F McLennan, one by Amy Tanner and Kate Anderson, and a last one by John Dewey. This paper, called "The reflex arc concept in psychology" (Dewey 1896), has become a classic in the history of modern psychology (Langfeld 1943; Leahay 1987) and marks a clear departure from the existing "paradigm" of experimental, stimulus-response psychology.

In his contribution Dewey argued that the "working hypothesis" of experimental psychology—the idea of the "reflex arc" of sensory stimulus, central activity, and motor discharge—was problematic because it still carried with it the dualistic assumptions that the new psychology had aimed to replace. Dewey criticized the dualistic use of the reflex arc idea because it blanked out the essential conditions under which stimuli occur. His argument was based on the observation that an unexpected glaring flashlight at night in a dark cemetery will most probably lead to a different reaction than in a laboratory in a series of hundreds of similar experiments or during a thunderstorm. In other words, the disposition of reaction is in a specific sense prior to the stimulus, and thus

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5. Wundt's basic philosophy was also dualistic in an ontological sense, but Dewey's rejection focused on the methodological dimension.

6. In what follows there is a detailed list of the equipment the laboratory had to investigate how the brain and the nerves function and how vision, hearing, movements, and reaction time can be measured (see *Annual Register* July 1894–July 1895, Chicago 1895, 42).

both stimulus and reactions are *not* to be considered "as separate and complete entities in themselves, but as divisions of labor, functioning factors, within the single concrete whole" (Dewey 1896, 40). Thus the traditional model, the physiological reflex arc, is not an adequate model to describe the "whole act, a sensori-motor coordination," the "circle" (Dewey 1896, 43, 45).

This idea returns as one of the basic assumptions of Mead's lecture. Mead shared Dewey's antidualistic views, although he developed Dewey's line of thought with much more awareness of the social environment than Dewey did in his critique of the reflex arc. Mead investigates education "from the point of view of the *intellectual processes of the community*" and conceives of these processes as "an essential part of the intellectual life of the group" (PE1: 1, emphasis in original). Mead does not so much ask how we can educate young people in order to increase their knowledge or so that they think clearly. On the contrary, he asks to what extent the phenomenon of education—in an anthropological sense—affects the way communities think. "We are interested therefore not only in the principles of teaching, but also in the *effect of education upon thought itself*" (PE1: 1, emphasis in original). For Mead there is no dualism between the world of *Geist,* the intellectual sphere, and the young, no isolated stimulus (knowledge) and response (learning). Therefore, education is not the interface between the two, like one would find in the German theory of *Bildung.*

Mead's starting point is the assumption that children are the main, i.e., original, reason for the socialization of humankind. "We know that through necessities of the human family, vagrant man has become attached—has been placed. *The center of this relationship* is not the sexual attachment, *but it centers in the child*—the necessity of permanence, protection, providing, cooperation—and out of these necessities society has arisen" (PE 1: 4, emphasis in original). In his lectures, Mead aims at reconstructing this process as a series of educational interactions which lead to the shaping of a group consciousness. He asks: "How far has the body of ideas, which existed in the group consciousness, been affected by the fact that they have been transmitted from a mature generation to an immature, in such a way that it could assimilate them? How far have the ideas been affected by the necessities of language—by the method of presentation?" (PE 1: 3)

Mead is far from naïve about the general belief in abstract ideas—to him they are discursive artifacts, as we would say today. The encounter of the young person with those ideas is not strictly educational, because these ideas have "not arisen out of his own concrete experience" (PE1: 1), but are abstract. Because Greek philosophy started to abstract ideas from experience, Mead wants to go back to prehistory to find an uncorrupted way to understand education more properly. By reconstructing the original genesis of social consciousness in prehistory and its successive transformation within Greek philosophy, Mead precisely distances himself from the dualistic approach of

German philosophy, which was based on a separation of the world of *Geist* from the world of nature. For Mead, a philosophy of education's task is to understand the complex process of emergence of social consciousness and to overcome the consequences of the "dualization" of abstract ideas from the empirical world of experience.

Philosophy, Psychology, Education, and Religion

The philosophy of education developed within pragmatism differed considerably from the German models and undoubtedly made an original contribution to the Western world's attempts to find intellectual legitimation for the growing system of mass schooling and the social/national expectations toward education. These differences might be surprising, because both pragmatism and the German approaches refer to modern psychology rather than to philosophy. But the psychological ideas used by the pragmatists, as can be seen in Dewey's critique of the idea of the reflex arc, differed significantly from Continental traditions.

When we take a look at the scholarly work Mead refers to in his lectures, there are also some interesting patterns which, not only provide support for the suggestion that psychology played a much more prominent role in Mead's thought than philosophy, but also indicate that he focused on a particular *kind* of psychological literature, i.e., work of psychologists with a Protestant and, in most cases, more specifically a Calvinist background. Mead refers to fifty different titles in his lectures (see this volume, pp. 179–181). If we group them according to academic discipline, we get the following list:

Psychology (17)
Philosophy (8)
Anthropology/Ethnology (6)
Naturalism (5)
Poetry (4)
Biology (3)
Sociology (3)
Religion (2)
Education (1)
Aesthetics (1)

We can see that the majority of Mead's references come from the fields of anthropology, ethnography, and psychology. In the lectures philosophers are only discussed in order to sustain his critique of the "dualizing" process that separates abstract ideas from the empirical world. But psychology is unmistakably dominant; 34 percent of all the titles are of psychological provenience. If

we count the quantity of references, the ratio is even higher—of all references within the lectures, 43 percent refer to psychological literature. Philosophical literature is not of great importance in Mead's lectures, since philosophy is blamed for the separation of ideas from experience. But educational literature is also remarkably absent, except for Dewey's *School and Society.* It is, therefore, psychology that is of fundamental importance for the development of Mead's philosophy of education.

It is also interesting to see that out of the fourteen cited authors of psychological works,[7] seven are sons of pastors or missionaries, three (Hall, James, and Angell[8]) of a Calvinist, three (Judd, Thomas, Thorndike) of a Methodist, and one (Wundt) of a Lutheran background. Moreover, of the other authors, at least Dewey and Royce grew up in deeply religious familiar contexts, and Baldwin was educated by the religious Scottish-Presbyterian minister James McCosh. Therefore, at least ten out of the fourteen psychological authors can be identified having been socialized in an explicit religious atmosphere, but we find only one Lutheran, no Jews, and no Catholics. This suggests that Mead's selection of psychological works represents a specific religious, i.e., Protestant, worldview—more precisely, the tradition of Calvinism that had been transformed in seventeenth century England and the Netherlands, that had minted the religious attitudes of the Pilgrims, and that had become liberalized at the end of the nineteenth century in the United States (Tröhler 2006c). Except for Wundt, we find no Lutheran psychologists, although there were many, such as Georg Elias Nathanael Müller, himself a son of a Lutheran minister and head of the psychological laboratory at the University of Göttingen. Furthermore we do not find any Jewish psychologists, even though they had been very famous, like Sigmund Freud or the Russian Sabina Spielrein. Charlotte Bühler came from an assimilated Jewish background as well as had William Stern; both were well known but none of them is mentioned by Mead. Catholic psychologists were rather seldom, but they existed too, like Franz Brentano, Théodore Simon, Alfred Binet, or Théodule Ribot, who spoke French but had at least ten of his books translated into English before 1910.

This (modern) Calvinist "fondness" is not only found in the psychological literature to which Mead refers. William J. Long was minister of the First Congregationalist Church in Stamford, Connecticut, Herbert Spencer was educated by his uncle, a minister in England, and William Robertson

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7. The list of the authors of psychological books is as follows (in alphabetical order): Elizabeth Kemper Adams; James Rowland Angell; James Mark Baldwin; John Dewey: G. Stanley Hall; William James: Charles Hubbard Judd; William MacDougall; Conwy Lloyd Morgan; Josiah Royce; George Frederick Stout; William Isaac Thomas; Edward Lee Thorndike; Wilhelm Wundt.

8. James B. Angell had intended to enter the ministry, but, plagued by throat problems, he changed his mind and became a Doctor of Laws.

Smith was a minister of the Free Church of Scotland, a Presbyterian faction. The author of the most often quoted book within Mead's lectures, William I. Thomas, was the son of a Methodist minister, too. And we shouldn't forget, of course, that Mead himself was the son of a Congregational minister who married the daughter of missionaries in Hawaii.

Mead's lectures on the philosophy of education can thus be characterized as distinctively "modern," since they do not continue a Continental/German line of educational philosophy but instead take their point of departure in a particular "form" of modern psychology. This, however, was not the experimental tradition of Wundt, but a functionalist approach that was deeply interwoven with the social ideology of a liberal Calvinist worldview—something Mead was very aware of toward the end of his career (Mead 1929–1930). In Mead's writings this ideology developed into a full-blown social psychology. In contrast to the Continental/German philosophies of education, pragmatism never neglected the social context of human action but always understood the individual as an individual-in-social-interaction. Even though some of the assumptions of liberal Calvinism can be considered outdated in today's context, research has not yet explored all the seminal aspects of pragmatism's contribution to the theory and practice of education. The publication of Mead's lectures in this volume will make it possible to generate a better understanding of the distinctive contribution Mead made to the development of a truly pragmatist philosophy of education.

Exeter/Zurich, August 2007

Editing Principles

In what follows, we have reproduced the original typescript as much as possible in its original form. The original page numbers are indicated in the text in square brackets. All our additions and changes are either in square brackets or are explained in a footnote. Some words and passages in the typescript were underlined by hand; others by typewriter. Both appear in italics, but where underlining in the typescript was done by hand this has been indicated in a footnote. There were a small number of cases where we were not totally sure about words in the typescript, often because of illegible corrections. In those cases we have put an asterisk behind the word or string of words. We have corrected a very small number of obvious typos and spelling mistakes without indicating the correction. Only one of the lectures had a title (Lecture 2); all other lectures, except for lecture 1 and lecture 36, were indicated in the typescript by the word *lecture* followed by a number. The title for what we have called Lecture 36 was "8 June." Lecture 37 was the last lecture in the typescript—it finishes with "The end." After this there were three more pages in the typescript, originally numbered 95, 96, and 97, but these numbers were stricken through by hand and replaced by a, b, and c. The title of this lecture was "June 10," which suggests that is was given the day after Lecture 37. We have listed this lecture as Lecture 38. In order to help the reader we have added titles to all other lectures—this, again, has been indicated by square brackets.

George Herbert Mead's Lectures on Philosophy of Education

LECTURE I

[Education and the Intellectual Process of Community Life]

We wish to get at education from the point of view of the *intellectual processes of the community,*[1] regarded as an essential part of the intellectual life of the group. We are interested therefore not only in the principles of teaching, but also in the *effect of education upon thought itself.*[2]

A word in justification of beginning with a study of primitive society rather than with our present age. The modern world started off with an inheritance of abstract ideas which it had received from Greece and Rome, and the first task of education was to assimilate the metaphysics of Aristotle's philosophy. This was expressed 1) in the theology of the church; 2) in Roman Administration. These ideas were highly abstract, and for a long period the schools of Europe were engaged in becoming familiar with these abstract ideas. Medieval Europe was thus very much like a little child who is brought into his first contact with fractions. He is in the presence of symbols which have not arisen out of his own concrete experience, and which have to be handled by rule[s] which are foreign to his own experience. Both symbols and rules lie beyond his experience; the number in his arithmetic is not the same as the number in his concrete experience. This is much like Europe which in the Middle Ages stood in the presence of cultures inherited from the Greek and Roman civilization. It found it hard to receive and assimilate them because of their lack of relation to the experience of that day. There is here a contrast between the educational problem as it had existed in Greece

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and Rome and as it presented itself to Medieval Europe. It now made use of abstract *ideas which had not been abstracted from the concrete experience of the people* of Europe.[3] [1|2]

Afterwards, our civilization having assimilated this method of the ancient world, along with its abstract ideas, advanced to a form which is in itself concerned with a body of highly technical ideas—a technical education. You will recall that the *modern world began with Galileo who gave a new scientific method— a new way of conceiving of the physical world and a new technique in dealing with it.*[4] This new technique was decidedly practical as over against ancient science, which was altogether theoretical. They carried geometry as far as Euclid to whom there has been little addition since, and they advanced in astronomy to the beginnings of trigonometry, but there was no engineering in the ancient world. Greek science was not applied. The so-called "engines" of Archimedes are considered apocryphal. The ancients were singularly ignorant of the application of the simplest geometrical facts to life, as is shown in the writings of Josephus. But with Galileo, physical science came to be applied science very early. The successor of Galileo invented a clock. Thus with a new way of conceiving the physical world, there arises a new technique for controlling it, and education therefore became a technical matter. Of course, the practical applications did not proceed as rapidly at first as they have in more recent times.

This definite relation of education to specific callings which is characteristic of our modern times has closed our eyes largely to the intellectual processes of the community life, so that there is no recognized relationship between the body of ideas, say of law or engineering, and the methods by which these ideas are acquired. We have not realized that the body of ideas is itself affected by the manner of transmitting them. We have been concerned with the technique—the body of [2|3] ideas, and have considered the method of learning them relatively insignificant.

Contrast this with the attitude of a primitive people toward its ideas, as embodied in myths which we know are without question affected by the method of transmitting them. We recognize that a process of construction for purposes of presentation has largely affected the ideas involved in the material itself. This is true of initiation ceremonies, the materials of which have been largely determined by the very process of handing them down. We speak of the material as "traditional"—that is of a sort which is dependent upon the process of being handed down.

So we will view education, not only as a method of giving a body of facts to the rising generation, but we shall also consider the effect which the process of handing down has had on the material itself, as handed down from

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4. Underlined by hand in typescript.

generation to generation. We know that our ideas are determined largely by the nature of language. If men had been compelled to communicate their ideas by means of gesture and pantomime, our thought processes would have been much more confined in their development. Our imagery in 1) would have been quite different and in 2) our judgments would never have been such as to admit of grammatical analysis, etc. Early philosophy, as among the Greeks, concerned itself largely with analysis of language, etc.

Wherein has the need of transmission changed the body of ideas themselves? How far has the body of ideas, which existed in the group consciousness, been affected by the fact that they have been transmitted from a mature generation to an immature, in such a way that it could assimilate them? How far have the ideas been affected by the necessities of language—by the method of presentation?

With Fiske we must recognize the im[3|4]portance of the period of prolonged infancy—that man does not have to become fixed in his habits from the very first.[5] Hitherto we have not sufficiently recognized the effect of this period of infancy upon the materials to be acquired, cf. Israelites. We know that through necessities of the human family, vagrant man has become attached—has been placed. *The center of this relationship* is not the sexual attachment, *but it centers in the child*—the necessity of permanence, protection, providing, cooperation—and out of these necessities society has arisen.[6]

The earliest stage of society of which we know—the hunting stage—does not involve social activities necessarily. The pursuit and consumption of game may be quite an individual affair. So it required the social pressure of the little child to call the father in to divide. As soon as co-operation arises it is found to be for the sake of the child—the mother adapts herself to the needs of the child, and the father, even in the matriarchate, also recognizes its claims.

With agriculture we find the distinct stamp of family life.

This quarter we shall consider the relation of this attitude toward children in its effects upon the material of instruction. How far has the social situation precipitated an idea, and in 2) how far have these ideas been affected by the process of transmission—its very necessities. We may say that not only institutionally, politically, but intellectually as well—a little child has led them. (See Thomas' *Source Book for Social Origins,* Part II, Mental Life and Education.)[7]

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5. John Fiske, *The meaning of infancy* (Boston/New York: Houghton Mifflin Company, [1883] 1909).

6. Underlined by hand in typescript.

7. William I. Thomas, *Source book for social origins: Ethnological materials, psychological standpoint, classified and annotated bibliographies for the interpretation of savage society* (Chicago: The University of Chicago Press, 1909).

LECTURE 2

So-Called Education in Lower Animals Compared with Conscious Education in the Child

Yesterday we expressed our intention [4|5] to study the educational process from the point of view of more primitive society—that is education conceived of as an essential part of the social organization of the group.

Let us briefly consider the counterpart of this in the lower animal forms. One great advantage the human animal has over the so-called lower forms is the relatively long period of infancy. With the cat, dog, and horse, the period of dependence upon and association with the parent forms is much shorter than the like period in the case of the human form. Indeed some naturalists have given us quite a body of literature on "*instruction*" in the lower forms—as Long, Seton-Thompson, and others.[1]

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1. Probably William J. Long (1867–1952) and Ernest Seton-Thompson (1860–1946). Possible titles: William J. Long, *Ways of wood folk* (Boston: E. Ginn & Company, 1899); *Whose home is the wilderness: Some studies of wild animal life* (Boston: E. Ginn & Company, 1907). Ernest Seton-Thompson, *The wild animal play for children, with alternate reading for very young children* (Philadelphia: Curtis Publishing Company, 1900); *The animal story book* (Boston: Hall and Locke Company, 1901); *Lives of the hunted: Containing a true account of the doings of five quadrupeds and three birds, and, in elucidation of the same, over 200 drawings* (New York: Charles Scribner's Sons, 1901); *The biography of a silver-fox; or, Domino Reynard of Goldur town* (New York: The Century Company, 1909).

They cite the example of the young fox which goes with the older form and acquires something of the skill of the older form and acquaintanceship with its habitat. But is this "instruction"? We are not able to say just what this process is in all details, but animal psychologists are pretty well agreed that the conduct of the parent form and the objects of the environment provide the stimuli which call out the tendencies already imbedded in the nervous system of the younger form itself. There is seemingly no admonition, no "instruction" given by the older form. There is no evidence, e.g., that the boxing of the ears of the kitten by its mother has the value of admonition, or correction. There seems to be no idea that the kitten should "copy" older forms. We have no evidence that there is any direction given, save what is involved in the environment and actual conduct of the older form.

What seems to take place is that the hunting instincts of the young fox become by this process attached to certain stimuli—rendered definite, and thus condition[5|6]ed by these stimuli. At first there is organization there, in the nervous system of the form, but it is not determined. The environment and conduct of elders, the stimuli, determine the expression of these instincts for hunting.

So with the instinct for avoiding in the young fox. In an age when man is his enemy, this instinct has become attached to the odor of man, but it is conceivable that in an environment of enemies other than man, this instinct for avoiding might become attached to a very different form. The organization of the nervous system is given but the stimulus is not yet determined.

There are some cases, however, in which the type of stimulus is completely determined from the first, e.g., as to food. But this is subject to modification after a disagreeable experience—as Morgan's chick with its Cinnabar caterpillar.[2]

The term "*imitation*" has also been used to describe [the] process of animals in acquisition of certain habits—e.g., Thorndyke experimented to see if one cat could learn by "imitation" of the action of another how to escape from a cage, on seeing a trained cat free itself by pulling a string. He found that the second cat could not learn by "imitation"—it took just as long for it to learn to escape as it did the first cat. It had to learn by the trial and error process.[3]

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2. See C. Lloyd Morgan, "Association of ideas in animals," in *An introduction to comparative psychology, new edition, revised* (London: Walter Scott Publishing, 1903), 85f. In his "Concerning Animal Perception," *Psychological Review* 14 (1907): 383–90, Mead refers to this example in George Frederick Stout's (1860–1944) *Manual of Psychology,* 1888.

3. Probably Edward Lee Thorndike's (1874–1949) doctoral thesis, "Animal intelligence: An experimental study of the associative processes in animals," *Psychological Review, Monograph Supplement* 2, no. 4 (1898): 65ff.

So we conclude that there is no evidence that any animal can, by observation of another, recognize it as "copy" and set themselves definitely to reproduce the successful act, for from experiments we have also found out that monkeys also learn, not by the imitative method, but by the trial and error process.

So we conclude that as yet comparative psychology has not yet furnished any evidence that animals can learn by "imitation," [6|7] as such. Whenever they seem to imitate, investigation shows that their actions are the result of some kind of previous training, such as they might indirectly pick up in a zoological garden, etc.

The animals have instincts, tendencies to react. These tendencies are in many cases not determined until the animal comes into a particular environment, which furnishes appropriate stimuli. Born in one habitat, one set of stimuli [might] operate to set off these tendencies, but in another habitat another set of stimuli might come to control. The instincts are therefore adjustable largely to the conditions in which the animal finds itself.

Education then, as far as the lower animals are concerned, is determined by the stimuli with which the animal comes in contact—stimuli to which his pre-adjusted instincts respond. There is *no conscious* education for the lower animals. Their environment and the conduct of the older forms determine the reactions of inborn instincts.

The human infant, in contrast, has a relatively long period in which the infant is dependent upon the parent form. So the period of *plasticity* which belongs to infancy continues for a much longer time than it does with the animal form. *Plasticity* may be defined as a condition in which the tendencies to act are comparatively fixed, but the stimuli which will set them off have not as yet been determined. The motor part is completely determined from the outset, but the sensory part awaits determination. The instincts are determined, but their stimuli are not yet determined. This is true to a surprising degree of all kinds of human behavior. The extent to which we are able to put together the various elements of acts, and by this combination constructing a new act, is very important. (Ill.)[4] Writing is a [7|8] complex act, made up by the union of many simple parts. We cannot get control of these component parts, as such, so it is hard for one to disguise his handwriting. These component parts tend to go off of themselves, so we cannot directly control them, but we are able to secure the control of the entire series by attaching them to one object, now to another, as stimuli. (Ill.)[5] The act of striking. The elements of the act are predetermined in the central nervous system, and so are the same for all persons, whether for the prizefighter, or the ordinary citizen assaulted in the streets. Though this striking process is itself determined, the stimuli,

4. "Ill." probably indicates an illustration given by Mead in the lecture.
5. "Ill." probably indicates an illustration given by Mead in the lecture.

the conditions under which one shall strike are not determined, but vary indefinitely, e.g., what shall constitute an "insult"—a stimulus which sets free the striking reaction, may vary indefinitely according to the standard set by one's social position, rank, etc.

Our instinctive, elemental movements are relatively few, although human conduct is very complex. This is due to the many combinations of stimuli which are possible, each calling forth an appropriate response. There is no limit to the differences of combinations and as a result to our various and manifold reactions, cf. alphabet.

This power to combine stimuli makes manifold conduct possible. We control our conduct by determining the objects to which we will respond—by constructing objects, by determination of stimuli. So we resent an insult only when it comes from one of our own, or of a higher class. It is only a mere passing sound, with no meaning otherwise for us.

We thus control our conduct through the conscious construction of those objects to which we will respond, and we train our children also to choose the stimuli for their acts. This is in contrast [8/9] to the animal. The odors which the fox learns to avoid—the stimuli to its acts, are determined for it unconsciously by the life of the parent form in the midst of [a] certain habitat. There is no consciousness of either teaching or learning with the lower animals. We may teach a dog not to take food from a certain place, but it is from fear of punishment, and not to be assumed that he constructs the food as the "property" of another.

The child on the other hand is not only taught to react properly, but also to construct the object towards which he acts—e.g., to recognize the money of another as belonging to, as the "property" of another. Thus the child learns why he acts, and why he does not, etc. There is with the child a conscious construction of the object as of "property." As gold or silver the coin is there—but to conceive of it as the silver of John Smith, as something which John Smith alone controls, involves a social construction or determination of the stimulus. If everyone should disappear from a community, property would also disappear, because it is a social construct. This is likewise true of the constitution of the U.S. It is as real an object as the Rocky Mountains, but an object which is a social construct. Since we have it within our power to construct objects to which we will react, we have conscious control over our action. Not so the animal. It cannot construct its objects, so for it there is no property, no right or wrong, no conscious control, although we do find in the animal a type of intellectual behavior out of which this higher moral conduct develops. The power to construct the object is thus the key to conscious training.

The education of the lower animal forms is of a piece with that which the baby gets when it learns to avoid a candle [9|10] which has burned it.

Sometimes these stimuli are completely determined beforehand, as in the case of the moth—and determined to its own destruction.

But where the reactions are not yet attached to stimuli we have plasticity. This is in contrast with the lack of plasticity shown in the small ant whose fighting instinct is determined by the odor of the giant ant. If small ants are crushed, and the giant ant dipped in their odor, he will not fight and vice versa.

All the opportunity for adaptation grows out of plasticity—out of a state in which the stimuli are as yet undetermined. The human infant not only has instincts, but has the added power of consciously constructing the objects to which these instincts shall react. He is taught to construct these objects by society. And thus society secures a control over the human form which is not possible with the dog or ant.

There is the same plasticity in both, but the human form has the ability to consciously construct the objects to which it will respond. This conscious construction of objects is the key to conscious education.

Lecture 3

[Language, Communication, and Human Consciousness]

Yesterday we saw in what sense we may speak of the education of so-called lower animals and found that infancy with them represents a certain degree of plasticity, viz. a reaction for which the stimulus has not yet been determined. These reactions are determined with reference to their stimuli by their environment and life of the parent form. But there is no conscious direction—no education as such. What the parent form does serves to fix the type of objects to which the young form re[10|11]acts. We saw in the second place that there is a difference here between reflective and animal consciousness. The human form not only passes through such a stage of plasticity as we just noticed, and has its stimuli also determined by its parent forms, but the objects of its consciousness are the result of construction. This construction of objects is the function of reflective consciousness. It constructs objects which shall serve as stimuli for our reaction. We saw yesterday that the number of objects which become the occasions for reactions is almost innumerable, and that these objects were such as could not exist but for a reflective consciousness, e.g., property, money, etc. Coin as a "value" did not arise until there was a human consciousness. Today the value of a coin is an object to which we respond—a stimulus to pile up wealth, etc. But we see it as an object which is constructed. This is not only true of money, the U.S. constitution etc., but of all objects as such. This is the difference between the infancy of human and animal forms; simple stimuli are determined for the animal forms, while with the human forms, not only are simple stimuli determined, but its objects are also constructed. An object may not exist for us until the act is over. e.g. We close the eye on a cinder, or spring out of the way of an auto. We

have stimuli here in all such cases and we act before the objects as such have arisen in consciousness. Thus we may distinguish between a stimulus which may set free a reaction without appearing in consciousness as an object, and one which appears only to reflective consciousness, i.e., as an object. In the former case, if the attention were concentrated elsewhere, we might adjust to the stimulus without knowing it. Of course in one sense consciousness always has a cognitive aspect. But [11|12] if the stimulus is not constructed into an object this cognitive aspect is not involved. The same is true of the emotional aspect. A stimulus may be pleasurable or painful without our knowing it as an object, as, e.g., certain objectless emotions [and] certain moods without definite object. An "object" then involves an element of cognition and arises later than the stimulation and also later than our affective states.

In this there is a distinction between the consciousness of animals and the reflective consciousness of man. For with animals stimuli serve to set off reactions when there is no object, as such. While with human reflective consciousness, reactions are due to objects. There is of course this type of consciousness found in ourselves, e.g., in our reactions to any object of skill, we react to stimuli which are not present as objects in consciousness, stimuli we are not able to define. One does not know, e.g., exactly what is the stimulus for any specific phase of the act in games of skill.

We also hesitate to give our confidence to a stranger. We do not know just why, but we instinctively withdraw our confidence. In this we react to stimuli without knowing just what these stimuli are—just what the ground for our action is. So the stimulus here is not present as an object in consciousness. Very much of our conduct is controlled by this objectless type of stimuli. In handwriting the attitudes and postures represent a series of reactions of which we are only more or less conscious. But we are not conscious of stimuli for each specific movement, though we may be conscious that an object has been present after the reaction has already taken place.

A parallel has frequently been conceived between the infancy of the human form in its development and the development of the race—between the phylogenetic and the ontogenetic series—between the development of the race and that of the form. Some assume that this parallelism is quite complete and have expressed their view in what is known as the "Culture Epoch Theory" of child development, but this theory has been discredited both from the point of view of the child and from the point of view of the race—and this [is] about the only way in which they are parallel! The child does not pass through any such epoch as is implied.

The education of the child in what we called civilized society takes place in a type of social environment which is quite different from that which exists in a primitive state of society. And this social environment is of such capital importance for the development of the child that it is almost impossible to compare the two lines of development.

The social environment determines very largely those differences which we recognize as distinguishing the races—e.g., the Italians or Germans. A child takes on largely the characteristics of the older forms with which he is surrounded. If in an Italian home, he assumes the Italian characteristics largely, if in a German community, the German characteristics. Social environment is certainly responsible for much, and to take account of this is, of course, to distinguish sharply between primitive man and the child of today.

We refer here, of course, to a more primitive form of society than any of our investigations have as yet made us acquainted with. In primitive societies of [13|14] which we know, as the Indians, the Vedas of Ceylon, or Bushmen of Australia, we have a very definite social organization which determines very largely the conduct of the child, and this must have taken a very long time for its development. From certain discoveries in France we must conclude that human society goes back fifty or a hundred thousand years at least. Now the attempt to divide up this long stretch of time into successive periods is at present impossible, and we certainly shall not attempt it here.

It points to the probable fact that man existed largely in a solitary state, or at least in groups such as we know nothing of in which he made use of few utensils. During part of this time man was very probably slowly gaining control over tools. But for purposes of social organization, and especially for the development of reflective consciousness, the most important tool is language.

The beginning of language is lost in obscurity. We remember that all of our thinking takes place and has its beginning for us in some sort of gesture or signs which have significance for other individuals. We think in some sort of gesture. Even if we abstract a person from his fellows thinking goes on in the form of dialogue between the I and the Me.

Language arises as a tool for communication and consciousness of its use, like the consciousness of any other tool or implement, arises out of the act. The primitive man threw the stone and used the club long before he was conscious of having an implement or a tool. This arose out of the social act, if we may regard the beating out of the brains of another, a social activity! Thus the implement or tool arises out of the act. This is true of the club, the bow and arrow, but is also true of that early instrument—[14|15] language. The gurgle of the little child, the smiles and frowns which play back and forth between the infant and its mother, constitute the earlier communicative activities from which language arises. At first the responses have little significance, but soon these activities come to have meaning. Expressions of the face (mimicry) and expressions of the arm and trunk (pantomimicry) precede and lead up to articulate speech. It is especially noteworthy that these gestures are acts inhibited at that point where they have meaning for the other form, i.e., at the beginning of the acts. There are attitudes arising out of early hostile conditions in the struggle for existence, so it was essential that one form be

able to interpret the very beginning of the acts of the other form. This was true of all social processes whether hostile or friendly. The same thing is true of fencers today. And in boxing the beginning of acts in one person, called feints, constitute a veritable language, to which the other forms respond. Language arises out of this play back and forth of gestures, acts inhibited at their beginning. Thought therefore arises out of this interplay of gesture, and as a response to them thinking is always in the form of a response to another.

(For origin of language see chapter on language in Judd's *Psychology*).[1]

1. Charles Hubbard Judd, *Psychology: general introduction* (New York: Charles Scribner's Sons, 1907).

LECTURE 4

[Play, Initiation, and Cult: The Origin and Development of Value Judgments]

We know of two sides to the training of the children of primitive peoples; one is represented by play, and the other takes the form of initiation, which is of a more formal character. There may be training not confined to these two phases of their life, but we are only familiar with these two phases. [15|16]

Let us consider *play* first. Through this we find that the techniques of a community—the use of utensils and weapons are acquired. This learning process is very closely akin to that of the animal. Some educational direction however is involved, when utensils and weapons are constructed which are suitable to the size or age of the child. Beyond this there seems to be very little direction as to how to use the weapon and utensils of the group. Some skill is of course acquired in the use of these implements, but it is developed with very little conscious direction.

Likewise in the initiatory exercises, there is no evidence that a boy is being tested for skill, but the test is one of endurance preparatory to citizenship. Skill is not taught. There is no direct instruction. The institutions of society have developed here, as elsewhere, through natural selection, and it appears that primitive man did not find it necessary to instruct the young in techniques. They are supposed to acquire them through their play, or pick them up gradually after they were initiated into the life of the group.

The child in primitive society has much more freedom than a child in a civilized community—there is less work required of him since there is little agricultural effort, and consequently little of what might be called apprenticeship. He gains his technique by the play process almost entirely.

Even the adults in the primitive communities of which we know do not acquire a great deal of skill. Experience has shown that the civilized man, where he has come in contact with the savage, has been able, after a little practice, to excel the savage in his own arts. Moreover we learn that the savage cannot become ex[16|17]ceptionally skilful in the arts of civilized man.

Consciousness of skill is not by any means so pronounced among savages as it is among civilized peoples, so their standards of conduct, their technique[s] do not demand such an extended training. So the consciousness of the community does not train in techniques and attainment of skill.

The other type of training, that of "initiation," is more conscious and deliberate. Initiation is about the only educational institution that primitive people have. As we have already seen, it is primarily a test of endurance, preparatory to citizenship. Youth in some cases fail to stand the test and are dressed as women and refused citizenship, though it amounts to being "conditioned," as they are later given another trial.

Apart from being a test of endurance, an evident aim of the initial process is that of impressing the boy with the value of the citizenship which he has undertaken. The ceremonies are so organized as to bring out a definite and highly emotional reaction. These emotions depend upon the inhibition of certain instinctive responses—he must when hungry abstain from the food within reach; he must undergo suffering and pain without giving expression to the natural expressions of pain, etc. *Power to inhibit is the thing sought for here.*[1]

Apart from the testing, this highly emotional situation is also used to impart to the youth the mysteries of his tribe, mysteries which he was not permitted to know before. Along with receiving the mysteries, certain *taboos*[2] or restrictions are placed upon his conduct, so he is thus tested as to his ability to submit to these restrictions. The youth of Central Australia, for example, when he goes out into the retirement of the bush, to abstain from the ordinary food which he finds there, [17|18] and even after he returns as a citizen, he must submit for a year or so to certain restrictions upon his conduct.

They choose for the period of initiation, adolescence, the most emotional period of life. The ceremonies too are so arranged as to bring out these emotions. Moreover his citizenship is conferred under such restrictions as will lead to an emotional evaluation of his citizenship.

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1. Underlined by hand in typescript.
2. Underlined by hand in typescript.

Excursus on the Origin and Development of Value Judgments

All instinctive judgments of value are in emotional terms, but what is called the economic evaluation—the evaluation of the end in terms of the means necessary to accomplish it, is of a derived, or secondary nature. But when we say that "that is good," etc., the value judgment here represents a more immediate, emotional type of consciousness.

This in turn is to be distinguished from a pleasant state of consciousness from contemplation of an object. Pleasure due to the imagery of an object is not an expression of our value judgment of that object. The value judgment belongs not to this pleasure type, but rather to the emotional type, and as emotional, it is connected with inhibition of some sort. The relative pull of two objects of desire[,] two impulses, and the emotion which follows upon this conflict situation, is quite different from the emotion of evaluation. And this is in turn different from the economic valuation.

But our first judgments of value are primarily emotional, and it is these which the youth forms with reference to the citizenship which he is trying to achieve; with reference to the spiritual inheritance which is tied up in the mysteries of his tribe, in its myths and cults.

The youth has therefore not only the immediate emotional evaluation, but this is [18|19] carried out into certain economic stages also, as represented in the various restrictions, and self-denials, which he is willing to undergo in order to obtain this citizenship. He measures the values of the citizenship by the taboos which he re-accepts in order to get it.

The difficulties in the savage communities do not come from within the community itself—they are all on a level, save the old men who use the initiation ceremonies to insure their privileges, a kind of primitive "graft," but otherwise there is no order or class which stands out over against any other class within the community, e.g., there is no class whose business it is to enforce the law. We find offenses with no provision for definite punishment. Although the matter of control *within* the group seems relatively easy.

Their chief difficulties arise outside of the group, in conflict of interests with rival tribes over food supply, etc. Of course they suffer from pestilence, disease, etc., but their organization seems quite adequate for control within the group, for social control. Where a man is killed by a member of the group, his kin people punish the offender. The immediate attitude of the parents towards the children lacks the stress and strain which belongs to these relations in the elaborate system of modern communities, with its police control, etc. But savages have plenty of difficulties arising without the group, as savage society is always on a war basis.

With primitive peoples, the process of education is conscious and directed only in the ceremonies by which the boy is initiated into the life of the

group. The girl must get her education just as the boy gets his knowledge of the techniques of the group—1) through their play life, and 2) through helping their elders in everyday tasks. [19|20]

This is a comparatively simple situation. The primitive child gets his technique very much as the young animal does from the older forms. The only conscious education is in the tests of endurance in connection with the initiation, where they are introduced to the mysteries of the tribe, under strongly emotional conditions. The youth is thus led to an evaluation of the ceremony in emotional terms, and to an evaluation of the citizenship for which he is a candidate, in terms of the taboos, the restrictions—the price which it costs. These restrictions are assumed to be necessary to make the boy a good citizen.

We find these same attitudes of the child in initiation into secret orders today, in conversation, confirmation, etc. These represent 1) the emotional and 2) the economic evaluations as steps by which he attains his standing, and as a measure of value in terms of what he foregoes in order to secure it.

We recognize this same principle in works of charity, which need to be paid for in some kind of response. There is need of turning over the emotional evaluation into some kind of return in order to show appreciation.

This is in contrast with modern society where children are continually receiving the good of life without making return.

But initiation ceremonies cannot be arbitrarily undertaken. They must be a part of the life of the community, and cannot be constituted by an act of parliament.

The mysteries in which the child is instructed take the form of cult and myth. We now recognize that the cult is an earlier form than the myth. cf. Robertson Smith *Religion of the Semites,* and Thomas' *Sex and Society.*[3]

The origin of the cult is lost in mystery, but most of them can be traced back [19|20] to a technique, such as hunting or agriculture out of which they have sprung, but under such conditions as class them with ceremonies, which have need to make use of a magical element. e.g. The cult by which a group seeks for rain, is seen to have arisen out of the food processes of the community—hunting and agriculture. But the cult is worked out along the line of magic. cf. Thomas' *Source Book,* chapter on Magic.[4]

Cult has two phases. It represents a sort of group technique, which for some reason has been interfered with, and the cult looks toward removing

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3. William Robertson Smith, *Lectures on the religion of the semites* (Edinburgh: Black, 1899); William Isaac Thomas, *Sex and society: Studies in the social psychology of sex* (Chicago: University of Chicago Press, 1907).

4. William Isaac Thomas, *Source book for social origins: Ethnological materials, psychological standpoint, classified and annotated bibliographies for the interpretation of savage society* (Chicago: University of Chicago Press, 1909).

the hindrance. The ceremonies represent certain social activities which have become holy, or sacred under certain conditions and 2) they represent belief in an influence which comes in from the consciousness which has been variously described.

We used to think that animism implied a belief in a series of spirits which were able to possess definite objects, rocks, trees, etc.

But we now recognize that there need not be anything more involved than the thought of a certain power, presence or influence, which may itself be very indefinite, and not definitely connected with any series of spirits. cf. Smith and Thomas above.[5]

Cult then represents two phases: 1) a relation to an interrupted process, 2) magic.

This study is intended to throw light upon 1) the material of instruction, 2) the manner in which this material has been influenced by the process of initiation itself.

5. William Robertson Smith, *Lectures on the religion of the semites* (Edinburgh: Black, 1899); William Isaac Thomas, *Sex and society: Studies in the social psychology of sex* (Chicago: University of Chicago Press, 1907)

Lecture 5

[Cult, Magic, and Myth: A Psychological Analysis of Perception]

We were discussing the nature of cult with a view to getting at the nature of [21|22] myth. Myth is, as we have it, an explanation of the cult. We find examples in [a] large number of the myths of Greece and Rome. Myths are very late explanations of old cults which have lost their significance. The cult is the primary element rather than the myth. The cult is a combination of technique belonging to some of the simple processes of human life—hunting, agriculture, nomadic, marriage and reproduction, and artisan processes, plus magic. See chapter in Thomas' *Source Book,* selection from Frazer's *Golden Bough.*[1]

Frazer's statement is the most simple statement of facts, whether we agree with the interpretation or not. He recognizes magic as an attitude which primitive man took toward nature. This recognition is very recent; formerly the tendency was to recognize magic as late, i.e., as fol[l]owing and going out of a belief in spirits. Rather, magic is one of the most immediate reactions to nature. According to Frazer, Magic is a crude form of science, and involves

1. William Isaac Thomas, *Source book for social origins: Ethnological materials, psychological standpoint, classified and annotated bibliographies for the interpretation of savage society* (Chicago: University of Chicago Press, 1909); Sir James George Frazer, *The golden bough; A study in comparative religion,* 2 vols. (New York and London: Macmillan and Company, 1890).

a recognition of the relations of similarity and contiguity, and assumes that these relations of similarity and contiguity are also causal. He illustrates by the almost universal belief of the primitive people (association by similarity) that one's image has such a relation to himself that the injury to the image brings injury to its counterpart, i.e., injury to the enemies' image involves injury to the enemy. e.g. Putting wax figure of enemy before the fire to melt away causes the wasting away of the enemy. Injury to the eye of the eye of the enemy, etc. So by contiguity, the securing of a bit of clothing, hair, spittle, or something which has been in actual contact with the enemy involves a causal relation, so that if molded into the form of the enemy and treated with a magic formula, the enemy is injured and destroyed. We today assume that the laws [22|23] of similarity and contiguity are not valuable beyond the imagination and intellectual processes. The primitive man goes farther in that he believes the relationship is causal. Whether we accept Frazer's interpretation or not, the facts are unquestioned. There is not a conscious substitution on the part of the primitive man, but for him the image is thought to be the object. On the basis of such relationships as this, the primitive man attempts to control 1) the lives and fortunes of friends and enemies, and 2) Nature as well. This attitude of primitive man is found even where no belief in spirits or ghosts had as yet developed. Magic antedates the definite conception of spirits—of gods. Magic then, does not depend upon a belief in spirits, but it comes before this belief. See Thomas' *Source Bk.* Wm. Jones: *The Indian Manitou.*

Jones was a full blooded Indian, an authority on anthropology, who was killed by the Headhunters of Luzon, 1908.[2]

Jones gives a much more satisfactory statement than that of Frazer, who is dominated by a psychological schematism. He states the Manitou as the evidence of some sort of a presence which may be associated with an object, or may not be. Manitou, according to Jones, is not Magic, but is a good example of analysis of the mind of the savage as he faces nature. The situation is that of a savage who seeks for confidence in view of some proposed expedition. The savage goes to a tent, takes a kind of steam bath, or has a vision or a dream, in which there appears a kind of Presence. The important thing in this ceremony, according to Jones, is that this Presence is there, it may be singular or plural or even inanimate. There is no definite statement of what the [23|24] object is—there is just a Presence—an unseen Force, or Influence.

Certain writers are disposed to emphasize what is termed the Manama Doctrine. They try to make this a separate doctrine, as distinct from that of the fetish, or Magic, or the Manitou. Philistines and the ark of Jehovah (Jahveh). They insist that the controlling conception is that there is present

2. William Jones (born 1871) was killed on March 28, 1909. Possible title Mead is referring to: William Jones, *Fox texts* (Leyden: E.J. Brill, 1907).

"something" with a power, or Presence, but this is not analyzed. It is like our attitude toward a live wire to which we react without any scientific analysis of the object.

But there is here nothing that might be considered as dependent upon getting a distinct statement of similarity between the stimulus acting as symbol and the thing symbolized, nor is it dependent upon an association of contiguity. The primitive man does not so analyze his experiences. He does not necessarily personify physical things, but there is just "something" there—like the attitude of children in the dark, a kind of formless terror; or on the other hand a feeling of confidence or support.

This is the state of consciousness out of which magic arose. It is one in which there is no attempt to define the object. Not that the object is not visible, but that it is not, as such, presented. We sometimes say that savages are not scientific while we continue to act on the assumption that they do define their objects. But this attitude toward the Manitou shows that it is not defined. It is not presented uniformly as persons, bird, or thing. So there is no argument from similarity to what is to follow. But the image and the object flow into each other and produce conviction of reality, just as the presentation of a good actor. There is a failure to distinguish between the symbol and the thing symbolized, and this [24|25] takes place under strong emotional conditions. It is the failure to distinguish which lies back of magic.

We should have a parallel to this if we could get back, in the life of the child, of the very beginnings of reflective consciousness—to where something stands for something else—if we could get back of the child's use of symbol. We adults separate between symbol and things symbolized, but it is a process which has gradually taken place. We can not get back to the place where the child has not fully made the separation, where the image is as real as the actual, as in the child's conversation with imaginary companions. Here, in a part of his experience at least, this separation has not yet developed and we have still a unitary consciousness. We adults sometimes revert to this more primitive attitude as when we respond emotionally to the portrait of a departed friend in the same manner as we would if that friend were present. So with the primitive man. He reacted toward the image of his enemy just as if the enemy were there—to put out the eye of the image was to inflict this injury upon the enemy. cf. Iconoclasts beating down images. There is no recognition here of similarity, and the association on that basis, what we have is a failure to distinguish between the symbol and the thing symbolized. We do the same thing when speaking to a friend at the telephone—we are more or less in the presence of the person addressed. We assume a like attitude toward letters and telegrams received from others. So the mother preserves the garments of her departed child, and assumes toward them something of the same attitude as she assumed toward the child. This very much [is] the attitude of primitive man, though in our case of course there is a superinduced criticism of our

conduct—this tends to inhibit [25|26] the natural responses, but apart from this criticism, we tend to identify the symbol with the object itself.

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There is always a core of immediate sensory experiences to which we add. e.g. We see around the corners of houses; when we have seen but a few letters on a page, we add the balance of the sentence. So when the mother sees the article of clothing, the little shoe, this[,] as a sensuous core of immediate experience, she fills out and gives meaning to, by supplying the person to whom they belong. So with primitive man. He secures the piece of hair, fingernails of his enemy, and what he does to these, is for him, done to his enemy. Frazer gives a quotation from Bacon who cited a current belief which he said should be tested. It was that if you treat a knife that made a wound, you treat the wound itself, i.e., heal or inflame. For Bacon to ask that the connection between the knife and the wound be investigated, represents a secondary stage in thought, when we come back to ask if there is any connection between the symbol and the object.

But when an association gets started, and becomes fixed in a technique, and arouses emotion such as the terrors aroused by charms, one is carried back to a state of consciousness which is more primitive than this questioning stage. This is true of the fear of the "evil eye," and looking at the moon over the left shoulder. When the thing gets fixed as a regular method of control it is beyond criticism. Fear of an uncontrollable power makes against criticism and hinders our taking a scientific attitude toward the object.

Back of all this is the identification of the symbol with the thing symbolized, [26|27] especially an identification of a sensuous core with an object. This identification is so complete and immediate that action with reference to one means action with reference to the other.

There is not necessarily anything uncanny in this experience; but it is only a part in the process of perceiving. This is natural before reflective consciousness arises with its conscious distinction between symbols and that for which they stand. After this distinction arises, the possibility of greater control comes in.

This [is] verified from our own life, especially in religion, where we think that if the symbol is affected reality itself is affected. Cf. Jesus and the Sabbath. And the cont[r]oversy over transubstantiation where the elements have the value of the actual presence, are here identified with the presence coming into them. This is the attitude of fetishism, a more primitive attitude still.

This is again noticed in our poetic attitude toward nature where we feel a presence in nature to which we respond. This is not personification, but

nature calls forth a response. There is a something—a presence—to which we respond, but this [is] not distinguished from the physical object. cf. Bryant's *Thanatopsis,* or better still the writings of Wordsworth.[3]

Furthermore a purely physical object, physical as distinguished from social, does not exist for the primitive man. This attitude is represented in ourselves, when in certain moods, we seem to commune with nature and she to respond to us. It is very interesting to notice how many examples we have of this attitude of the primitive man in ourselves. If we give ourselves up to the primitive attitude in kicking a chair, e.g., there is a relic of the primitive belief that we are hurting the chair. So in tearing down the picture of [27|28] an enemy. It carries with it the feeling that we are injuring the enemy. Of course if we stop and criticize our act, this feeling changes. But if we do not criticize the act we must believe what the act involves. We cannot strike what we do not believe to be there. What the primitive man strikes is not the image but the presence which he believes there to be injured by his blows (cf. Mariolatry and use of images)

We must distinguish between Frazer's interpretation based on a mechanical, scientific schematism, and that given by Jones in his discussion of the Manitou where he shows that magic is a perfectly natural attitude of an uncritical mind.

Magic in its later stages becomes a very complex procedure as it develops its formulae which become tied up with contingences to explain its failure, and thus insured this procedure of the medicine man. Here it is a complex social procedure which has gotten beyond the naive frame of mind of the earlier stage.

Jones thus gives us a stage of savage mind where he fails to distinguish between the symbol and the object; between the sensuous content and that associated with it under emotional stress. This throws light on the consciousness of children and helps interpret myth and cult.

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3. William Cullen Bryant, *Thanatopsis* [With illustrations] (New York: G. P. Putnam's Sons, 1879); William Wordsworth (1770–1850).

Lecture 6

[The Social Nature of Cult]

We have seen that the psychological out of which magic arises is that of an instinctive reaction toward some object which is an image of or in some sense a part of a distant object. That the attitude is in a sense perception of which the image is the sensuous core, and the reaction is instinctive. Any successful reaction tends to carry with it an attitude of belief, acceptance, that is a cognitive [28|29] element. We might say that any reaction is in a certain sense an experiment. There is a tendency to be stimulated and reaction follows as a certain result. If the reaction is successful we consider that the experiment is verified. e.g. If one sees a rock he puts his hand upon it [and if he] feels the sensation of hardness he is satisfied; if it does not respond as he expects the thing is not a success. e.g. On April Fool's Day you go to pick up something and it moves away; here your reaction is not a success, i.e., it is not justified. cf. the kicking of the chair. The point is that there is a certain attitude which tends to be that of belief which involves the completion of the act itself. Perception of this sort on our part is criticizable while to the primitive man it is not.

With us there is also a tendency to believe in the reality of the object. It comes out in everyday life in many little cults, e.g., throwing salt over the left shoulder, when salt is upset, to avoid a quarrel. The carrying out successfully is what brings the belief.

If we take the so-called savage whose nature is similar to the stage of the child and note the reaction to different objects, we can see that it is natural for him to believe in [them], i.e., to hold the object to be real. The situation is only genetically different from a man who tears down the enemy's flag and tramps upon it. He identifies the flag with the country,

the enemy. So a piece of clothing is identified with its owner. Example[:] the story of Rousseau—when fearing the loss of his soul, threw a stone at a tree, believing if he hit it he would be saved. Of course he got very near the tree.[1] So in catching a train, we have a feeling, "If I get ahead of this wagon I will win out." Thus we set tasks for ourselves and if successful believe in the success of the whole. [28|29] Sometimes these tasks are quite arbitrary. Thus many vestiges of magic remain. What gives reality is that we succeed in doing a certain thing—i.e., we set a task. "If I do that, then the expedition, for example, will succeed."

The following illustration shows that success even in an arbitrary task may give confidence in the success of the whole. In the Hawaiian Is.[lands] the medicine man can pray men to death. A certain man was being prayed to death. An acquaintance of Professor Mead was looked upon as a stronger medicine man than the one who was praying this man to death. The doomed man came to him and he* set him a complicated task to perform. As he had expected, the man returned saying that the performance was a failure and he must die. Mr. M's friend pointed out to him that he had not carried out the task as directed. Upon going back and successfully performing the task, he believed he would not die. The complexity of the performance added to its power to increase his belief in its efficacy. The sense of any successful act carries with it the sense of reality. The more complex the task the deeper is its reality. Therefore the cult is apt to contain that which requires great and concentrated effort. The more difficult, the more of a sense of reality the success brings.

This is a very simple origin of magic. It is psychologically supported in our experience. We must remember, however, that among so-called primitive peoples, the cult lasted for centuries, i.e., did not advance, while civilized people through accident forged ahead. The primitive did not have a favorable accident, therefore did not advance. Primitive life, however, was likely contemporaneous with civilized life. There is no evidence that the so-called primitive community arose earlier* than ours; it has simply not advanced. cf. history. [30|31] The cults that we find do not then show an early stage of development.

The savage of whom Rousseau speaks is more beset by convention than civilized man. He is at least more bound by them, since he has not rationale for the criticism of them, such as we have.

The earlier cults have grown up and protected themselves by the introduction of various complications in order to always explain failure. Cults as we find them do not therefore represent the very earliest stage of development, but one which represents arrest and subsequent complication. We cannot find

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1. Jean-Jacques Rousseau tells this story in the sixth book of his *Confessions*. Mead might have read the edition by Hesketh Miles, London, 1908. A first edition had been published as early as in 1783/1790, another one in 1834 and 1871.

the stage where magic begins but we get close to it in the life of the child, and closer still in primitive initiation ceremonies—though this [is] not the very beginning.

These primitive peoples [reflect] not only the conditions of cult out of which magic arose, but also reflect the relationship between cult and magic itself.

Cult represents a technique which expresses some primitive impulse. It gets its value in the technique reflecting these primitive impulses. But the symbols are here identified with the object, and the cult itself also tends to emphasize this identification. e.g. The Australians whose totem is a grub, when grubs are scarce make themselves into a vast chrysalis. Since they are, as they believe, blood kin to the grub they are grubs. So when they crawl out the grubs are supposed to come forth and supply their need. Not that they are simply representing the grub, but in their minds they are identified with the grub as they swarm out of the chrysalis. In this they are like the child who is for the moment the person whose part he plays. The cult likewise emphasizes the [31|32] sense of reality. With us today this sense of reality is conveyed by means of the drama or novel and we class it as aesthetic. The cult then is especially adapted to intensify this feeling of reality because of the activity required in the ceremony and because of the concentration of attention upon a very difficult process. The complexity, strains, the cutting of flesh, the putting of symbols beneath the skins, etc. It gets its sense of reality through the feeling of achievement which it carries with it. Here the sense of achievement goes over into the object and enforces its reality.

This reinforcement comes from two directions: one, due to the straining of the emotions, and two, to the very similitude of the action itself, e.g., rain-makers use drops of blood for rain.

As we see, the cult 1) tends to get a psychological hold upon the primitive man by the very nature of the processes themselves—the strain upon attention, and use of interests. And moreover, in 2) the result that is secured carries with it that sense of reality which goes along with any dramatic presentation.

The cult itself may get so far away from its origin, that its explanations are in doubt—e.g., that of the Greeks and Romans. These people worked out explanations, but we now know that these were not correct.

Cult itself is a very conservative thing. It is a social habit, and as such becomes identified with the most primitive impulses of the community.

Our treatment so far has been from the point of view of individual psychology, but these cults are essentially social in their character. We recognize this from our own primitive attitude toward a chair over which we stumble, or an instrument which does especially good work. [32|33] All the cults that we know of are social. They involve the family, the hunt, etc.—activities requiring co-operation. Even the solitary man who must execute vengeance against his brother's slayer acts so as to attract the atten-

tion of the community. He sits apart in silence in a pondering attitude. In this he is not playing to the galleries but is trying to realize himself as the representative of his clan in that group. Until this is done he cannot realize the community behind him.

So all cults, individual, etc. always refer back to the community. Even those solitary agents have social values. The man who has a vision must have an appropriate audience to which he recounts it, which is in the very nature of the process such that it should be presented to the group. It was first presented to his mind as something to be told. Most of the cults themselves are cooperative in character. The dance is the earliest art and all acts reinforce the tensions, when the whole group reacts to stimulations which stimulation it is itself producing. The consciousness in which the activity is essentially social reaction. Most cults come thus to this point where the activity of others acts as a stimulus while at the same time each person is himself responding to the stimulus. Therefore the situation of cult is social.

So far our treatment [has been] from the point of view of individual psychology. But these cults are essentially social in their character. cf. our primitive attitude which slips from the fingers, or the gun or bow which does good work. These seem to be personal agents and we seem to be cooperating with them. Again, where a man is preparing to revenge himself upon his brother's slayer he will attract the attention of the community by his attitude—not by his speech but by sitting and ponder[33|24]ing and brooding.

We can trace most cults. But some have gotten away from their beginning. e.g. The dance first arose out of a certain condition. After that condition had passed away and life no longer furnishes such a condition, the dance, the very process which reinforced this condition, now itself develops into a cult. Many cults have thus lost their import because of the changes from the conditions under which they arose. These cults then have to be explained. Here myth comes in. Myth arises to explain the lost cult. Myth therefore accounts for a cult which has lost its import, its original meaning. cf. Hebrews change from the nomadic to the agricultural situation.

Again, the myths sometimes [have] a larger significance than the original gives. cf. The earlier explanations of the origin of the world elaborated from the life process of the group, e.g., reproduction. In this way a simple explanation is carried over an explanation of the world at large. It is the development of a technique beyond its original import so as to explain great natural processes. e.g. Take the contradictory interpretations of the character—it goes back to the situation where the year is represented as dying and coming to life again. Here a simply agricultural myth is carried over, enlarged to explain nature. So we have myth 1) as the explanation of a lost import, and 2) as giving larger significance to an import. These two make mythology. These correspond to the storytelling period among children—a very primitive process.

The primary thing in all this is the reaction. When this is explained, we have myth; here cult is reinforced by their weaving about it and putting [a] foundation under it, making it very complex as contrasted with its first appearance. cf. Brinton's [34|35] reference to Indians (*Source Book*).[2]

2. Probably Daniel G. Brinton (1837–1899). Possible titles: *The religious sentiment; Its source and aim* (N.P., 1876); *American hero-myths. A study in the native religions of the western continent* (Philadelphia: H.C. Watts & Company, 1895); *The Lenâpé and their legends. With the complete text and symbols of the Walam olum, a new translation, and an inquiry into its authenticity* (Philadelphia: D.G. Brinton,1885).

LECTURE 7

[Psychology of Worth and Reality, Myth and Explanation: Thinking and Social Consciousness]

We carried the psychological analysis of cult through our former lecture, bringing out some important features of technique belonging to the group and the application of this technique when its object is distant in time or space. We saw that image[s] or parts of the object may serve to set free this activity represented in the technique, and that especially for primitive consciousness such a use of or exercise of the technique tends to carry with it *belief.* This belief is emphasized by the success of the technique, especially when the technique is more or less complicated, when there is a sense of achievement in the carrying out of the technique.

We have seen that this answers, to a degree, to the artificiality, the complexity which answers to the technique. These are quite superficial.

We recognize how this is, with ourselves, on social matters. Our monarchial governments surround themselves with a technique, the complexity of which gives a sense of reality to the object toward which the technique is directed.

We have this also in religious technique, the successful achievement of which, in the complexity, gives to successful issue, the sense of reality.

Excursus—Psychology of Worth and Reality

The immediate import of an emotion in our consciousness is not so much as what we refer to quoted "reality," but a sense of "value." The emotional phase does not so much reveal the fact that experience is such and such a sort, as that experience has such and such a value. e.g. If one is angry with another, the emotion [35|36] does not heighten the sense of reality of the person he is angry with—in fact it may obscure the details, but it does give a sense of importance to the person. The annihilation of the enemy is the important thing under such circumstances. So the immediate import of emotion is not a sense of existence or reality, but one of value. Still the value which we attach to the object at least indirectly assures us of the existence of something there, which is worth while. e.g. In religion the experience itself, on account of its tremendous import on the person—as for example, an emotional attitude such as prayer, gives no immediate perceptual content, but is an attitude in which we transfer the importance of the experience over to the "object" with which we are dealing.

Again we know how this same attitude affects our belief in the continued existence of those who have died. The very vividness of our emotion of loss makes us certain that the person must still live. Of course such emotions tend to reinforce themselves with arguments of a very different character. We may say that we are in a moral universe, in which everything that takes place must have a meaning, and so try to justify the experience of loss, but this is not our immediate emotional reaction, in which there is a transfer of the feeling of the importance of the distant object, over into confidence in this existence—its reality.

Besides there is a difference in the character of the emotions themselves, i.e., emotions which involve protection—protective activity, tend to imply the existence of their object, while emotions attending loss do not carry such reality with them, e.g., fear tends to emphasize the reality—the existence of the fearful object. The belief in such reality, such existence, is needed as a stimulus for suc[36|37]cessful fright. But there is a difference in the motions themselves. We should remember that the emotion in only one stage is the entire act, and the activity which is involved in fear or terror, is quite different from the activity which expresses itself in sorrow.

All of these emotions are parts of activity, or better they represent early stages in the development of the act itself—stages which when fully carried out, reflect a sense of reality. Emotion is not simply superinduced upon the activity, inseparable from it. McDougal, e.g., assumes that every instinct has an emotion tacked on to it, every activity an emotion attached.[1] But on the

1. Probably William F. R. S. MacDougall (1871–1938), *An Introduction to Social Psychology* (London: Methuen & Company, 1908).

contrary, emotion is a stage, a phase of the act itself, and is not separable from the act. The importance of all this for us is shown by the two things: 1) on the one hand, the complexity of the cult, and on the other hand its highly emotional character, are effective in forming the attitude of belief in the reality of the object. Most cults show this tendency to become more complicated, and in addition, to strongly emphasize the emotional aspect. This [is] true of cults as distinct from the myths, and represents the situation out of which myth arose. We can find representatives of these attitudes in children.

We have laid very little emphasis, in discussing the origin of magic upon dreams, visions, sickness and death, because we do not think these essential to the explanation of magic as such. But on the contrary, the naive attitude of the primitive man toward their techniques lead[s] instinctively toward a belief in the existence of the distant object and magic arises for the purpose of control.

There is no doubt that dreams, visions, etc. do come in to reinforce such naive attitudes—e.g., a medicine man is sought [37|38] in order to help slay the enemy of a patron. They sit in twilight seeking to ens[n]are the wandering spirit of the enemy as it ventures forth. The medicine man says, "There, there, see that spirit?" Under the power of suggestion the patron answers "Yes." The medicine man grabs at the spirit, there is a squ[e]ak, he shows the patron a drop of blood, etc., and tells him that the spirit of his enemy has been killed. Then he manages to spread the news abroad and incidentally to make sure that the enemy is informed that his spirit has been caught and killed. The result of such knowledge is usually fatal.

Our spiritualistic seances also are likewise, showing a recognition of the importance of vision to reinforce belief.

The development of a theory of a double in order to explain dreams, neurotic experiences, etc.—all this comes in to reinforce the belief in magic, but it is not necessary to assume the existence of these in order to explain magic. Just as a child accepts the magical element without question in stories told him of wonderful things a man can do—accepts this explanation just as readily as he would an explanation based on the presence of spirits, so the primitive man, with a like attitude, does not need spirits for his explanation in his earliest stage. Spencer thinks of dreams, death, etc. as causing belief, magic, etc.[2] It is true they are important but back of all this is the more primitive attitude which is the explanation.

Coming again to myth. We have here the phenomena of explanation. It has been prepared for in two ways: 1) by a generalization of the cult so

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2. Possibly: Herbert Spencer (1820–1903), *Social statics, or, the conditions essential to human happiness specified, and the first of them developed* (London: J. Chapman, 1851).

that it goes beyond the limits of its immediate application. It is extended so as to take in larger phenomena—as reproduction, warfare, and in the case of Norse mythology, the fighting of giants is extended to account for [38|39] the phenomena of nature.

Heretofore it has been generally assumed that the primitive man had an uneasy curiosity about nature and turned to his cults for explanation. But this involves too sharp a contrast between what is explained, and what explains it—between natural processes and activities of the cult. Besides there is just as definite a tendency toward generalization as there is toward the seeking of explanation, which represents a later intelligence in their development. The tendency to generalize upon an experience is immediate and instinctive, so all experience tends to be passed over into a general view of the world as a whole. Any cult then, representing some process of nature, tends to pass over into an explanation of the processes of nature as a whole. This may be illustrated by the way explorers determine the antiquity of Babylonia by the rebation of the constellation of the sun to Taurus—the signs of the zodiac. If the sun was in Taurus in one era they said that in another era it would be in another constellation. Taurus in the Babylonian mythology is represented by a bull hitched to a plow. They concluded that when the myth fixed itself, the sun must have been in Taurus. And this must have been in the springtime, the time for plowing—the last time when the sun was in the constellation of Taurus in the springtime was five or six thousand years ago. This assumes an agricultural stage at that date, and the reflection of this in the cult. It is assumed that the Babylonians generalized their agricultural technique and applied it to the heavenly field.

Our mechanical view of the universe also represents such a generalization of the technique predominant in pre-evolutionary times.

The conception of evolution is a gen[39|40]eralization of the technique of stock-breeding.

All world views are hypotheses which, in a general sense, are generalizations of the techniques prevalent at that period. This [is] true of any period of mythology. Analysis of any mythology will reveal the counterpart of the technique of that community.

This generalization is instinctive—it is characteristic of our consciousness and involves no more than that the consciousness of meaning which be[l]ongs to an object be extended to other objects. To generalize is of the very nature of reflective consciousness. The very significance generalization* is that it may be used with or applied to any number of objects. So a generalization of a technique of cult gives us myth.

But some conditions are more favorable to generalization than are others. In so far as the activity is unobstructed we are almost unconscious of meaning, e.g., we use the pencil or the stairs without being conscious of their meaning. When there is no conflict, no conscious problem, we are not conscious of

meaning as meaning; but where a problem arises, we do realize definitely that the object means what we need, want, etc. If our pencil breaks, it presents a problem and we thus get a clear idea of what a "pencil" is. It gives us a meaning which may guide us in buying another. The same is true in invention. In the presence of a difficulty, an idea appears and applies itself just as widely as the activity of the person will allow. This [is] due to the very tendency of the idea to generalize—to extend to the whole.

Excursus

This tendency is seen in the generalizations which have been made about pleasure and pain as motives of conduct. The burned child withdraws his hand. This is not due to pain, which is only a cue to the [40|41] withdrawal. The action is really due to certain instinctive coordination which is adjusted to the protection of the organism. To say that it is due to pain is to cloud the psychological situation, especially when dealing with pain as such. We merge the sense of pain with the sense of tension, as in neuralgia, and thus the sense of tension is unconsciously made a part of the sense of pain. But clearly these tensions are not a part of the pain. This is a generalization. Pleasure and pain are largely symptomatic in their significance—they indicate whether the process is right or wrong, effective or ineffective.

Take the rain cult referred to yesterday. Here is a technique where the activity is set off—where the object itself is not present, i.e., that which stimulates the activity is not there. They are bound to think of the rain in some general way—to get an idea of rain which is more general than their experience of it in a shower. In carrying out their technique about the rain not present, they must have some sort of general concept to guide them, so they cut themselves and the drops of blood symbolize the rain.

This [is] just the situation where there arises an idea of a distant object, which is distinct from the percept of it, and to which they may respond without thought. The activity of the cult naturally leads to the idea. So cult naturally tends to myth; the activity to the idea.

Cult is also responsible for myth in that myth attempts to account for a cult that is lost to the people who seek its explanation. See Thomas' *Source Book on Mind, Myth, Magic, and Religion*; also Brinton.[3]

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3. William I. Thomas, *Source book for social origins: Ethnological materials, psychological standpoint, classified and annotated bibliographies for the interpretation of savage society* (Boston: Badger, 1909); Daniel G. Brinton, *The religious sentiment; its source and aim* (N.P., 1876); *American hero-myths. A study in the native religions of the western continent* (Philadelphia: H.C. Watts & Company, 1882).

We have traced the development of conscious intelligence up to the point of Explanation. The nature of education, of [40|41] course, is to be found largely within Explanation.

The preceding discussion has recognized the handing down from one generation to another of various techniques—which enable man to control his environment. We have also noted 2) how these techniques found their occasion with reference to a distant object. We saw how this reference to a distant object tends to carry with it an attitude of belief, and how the success of the reaction tends to heighten this belief. We saw that out of this situation magic naturally arose. The occasion with which such magical processes are associated, are, in an unusual degree, emotional, since they represent inhibitions of activity—the condition for the appearance of an emotion.

Such situations as these have evidently given rise to myths. Myths are recognized as fulfilling the function, in primitive consciousness, which our scientific explanation does for us today. It is this explanation which we wish to discuss more narrowly.

Explanation

Heretofore, the technique discussed has had to do with a distant object, and the success of technique has induced an instinctive belief in the reality of the object. We saw examples of this in our own consciousness, and in that of the children, as well as in that of the primitive man. The situation is one in which problems call for solution.

Some writers say that magic itself belongs to this field of explanation as due to a conception of ghosts, etc. But we saw that magic itself does not call for a belief in spirits, since it is an instinctive result of the successful reaction. We admit the tendency to follow this attitude further to think it out, leads naturally to the conception of spirits. Conception [42|43] of spirits is at first in a vague form. In animism spirits reside in objects, so we have to assume a vague social consciousness, such that any object to which the primitive man reacts, has in a certain sense, a personal value. The immediate response is simply one of this personal character. cf. Our irritation at the chair over which we stumble, or our poetic response to nature. This does not imply a clear and definite personification of the object, or presentation of spirit in chair or tree. We respond to these with the same affectional attitude as toward a person, yet they are not so completely personal—we do not assume a soul in the chair, etc.

Perhaps this is the same attitude as that of the primitive man. Any object which caught his attention, which absorbed his interests, had a sort of personal relation for him. Animism, then, in its first appearance implies only this vague sort of social reaction. The development of the conception of spirits was much

later. Fetishism develops naturally at this point. The earlier relation was that which implied a very primitive social relation between persons and things.

Coming to the situation referred to in Magic[,] where there is an identification of the image, with the Presence at a distance, so that an injury done to the image was injury done to the enemy at a distance. The primitive man regards the image with the same concentrated attention, and all the feelings of hatred with which he regards his enemy. We saw the very tendency of emotion is to reinforce his instinctive belief in the reality of the object which is represented in symbol.

The carrying out of such a situation, the getting of this feeling of reality, is in its very nature social, and consists in some response or an answer.

If it is important for us to believe [43|44] in our technique, then we want some kind of response—a response that will strengthen our instinctive acceptance of the reality of the object. We find many cults of primitive man so arranged by the medicine man, that response emphasized belief.

The response is that which the social character of our reaction calls for, it belongs to the very outgoing of the human spirit as one of the attitudes in which we feel ourselves to be receiving an answer, as in our attitude of prayer. e.g. There is a feeling of answer. It is not necessary that the answer should be in the form of words, or any particular form of events, but the feeling of having been answered is striven for until it is obtained.

The attitude of the primitive man toward nature is one of acting with reference to a distant object, and seeking some sort of response. Psychologically prayer represents this attitude on our own part.

Now *Explanation,* in the form of Myth, is an elaboration of this attitude of response to a distant object—an attitude which we find in our own consciousness, as in our poetic response to nature. The presentation of definite spirits which enter in to carry out the reaction sought, is involved. The catching of the spirit of one asleep, etc. is an elaboration of the belief due to the success of the reaction. If the cults are agricultural or pastoral—if bound up with the heavenly bodies involving the changing of the seasons, harvest, etc., there is the same endeavor to get a response to one's attitude to nature. This involves the putting into nature of what one feels within himself—that which answers to one's attitude. This answer accounts for the elaboration of the technique into a doctrine of spirits, designating these by name, indicating the office of each, etc. As society advances, the tech[40|41]nique is developed more and more, but in primitive man the attitude was simply that of seeking a response from nature. The social character then of the activity itself calls for a social response. The social response is demanded where one seeks confidence in his own belief. This is emphasized in technique.

Thinking is a social process, like conversation. Our own words in thought are a response in symbol to words or gestures of another. In thinking we are always answering to another. We tend to identify ourselves with the person

who answers, who responds, rather than with the one who speaks. Images may crowd into the mind, and the "I" who responds to these is that with which the individual identifies himself rather than with these ideas. The "I" who organizes the materials of consciousness is the answering self, and the self which finally comes to be organized is an organization in reaction, in response, to the ideas, symbols and objects which surround one.

An earlier and admittedly inadequate psychology—Associationalism, confined itself almost entirely to the ideas already there, and their associations—that to which the self responds. But these ideas to which the self responds do not represent the whole of consciousness. The answer, the response, is the important thing. We have brought this up again to emphasize the social character of our inner life, even when we are thought to be most to ourselves, when our thought is of the most abstract character, it is the nature of a response to something. Thought is social, and this social character is also found in conduct, of which it is a representation. The self is that which responds to a social stimulus from without, in all our responses to nature. These reactions when developed into a cult, and later into myth, [45|46] are simply elaborations of this social process.

There is another phase of this process—i.e., the aesthetic phase. Let us run over the steps again. The situation is one of stimulus and response, and this may take place unreflectively, unconsciously. The development of human consciousness is an elaboration of this situation. If the response is immediate, there is no consciousness. When inhibition arises, when the habitual is checked, then consciousness arises. The checking of habit involves the development of consciousness. For the same reason the constant adjustments to a varying environment must represent a tendency toward a reflective type of consciousness. The great variety of objects forces us to choose which we will respond to and how—the way habit must adjust. This leads to inhibitions, and consciousness arises. So the development of consciousness in the processes of nature goes along with the complications of consciousness, due to necessary adjustment to varied situations. Life from a physiological standpoint is wonderfully simple. There is a storing up of energy in the plant in the form of highly unstable compounds. To set free this energy only requires oxidation, excretion, etc. Movement follows this setting free of energy and this movement calling for processes of assimilation, etc. tends to restore the very energy which it sets free. Here we have reproduction, a function of the processes of assimilation. These processes are very simple, and with unicellular organisms, take place without any interference on the part of nature. There is a complete circle here, and both plant and animal life is reducible to these simple processes.

The complication involved in the life process itself reaches a point where there [46|47] is need of adjustment to a varied environment. This is the situation which involves the checking of the processes, and this inhibition tends to involve consciousness. This inhibition carries with it an affective state. If

the readjustment is immediate we have no emotion. If the adjustment to a varying condition is easily made, it carries with it the affective state of interest. This is what we mean by interest. It arises where the adjustment takes place readily, and to a variety of objects, or situations. If, on the other hand, the inhibition holds, checks, for a longer time, we have emotion. One in boxing or fencing, etc., is interested, but when one wants to strike and the tendency is checked, anger arises. This then is the nature of our consciousness. It accompanies our adjustment to various situations. The inhibition of adjustment means readjustment—calls for thought in order to bring elements which will help in the readjustment. The act must be presented in such form, must be so reconstructed, that we may respond more definitely.

This situation is that in which social consciousness arises. Object[s] call for a response. This is the way our thought processes go on—in terms of question and response. The scientist puts a question to nature and gets a response. The thinking of the scientist is social: He presents his hypothesis, and nature answers in the affirmative or negative. Nature thus presents her objections and calls for a revised hypothesis. This is a very abstract situation, yet if we carry it back to primitive man, we find this immediate social response, where all objects constitute other selves to which he responds. The same is true of the little child. The process of thinking out readjustments is, first of all, a social process—a conversation with the objects of nature. [47|48]

We will give attention to the aesthetic phase next. We will recall that there is an attitude which we occupy toward an object, in so far as it is merely a stimulus to our response. e.g. The pencil may only involve only so much stimulus, only so much of the sensuous content as to set free the reaction of picking it up, etc. Here the consciousness of meaning is reduced by the economy of nature to a mere "working image" with just enough of the sensuous content to set free the reaction. Now there is still another attitude one may take toward the pencil. If one asks whose pencil it is, we include more of the sensuous content than in the first case, we analyze the stimulus further and construct the stimulus sufficiently to set free the proper reaction—if it belongs to another we hand it to him, if it [is] our own we place it in our pocket etc. This attitude is an "analytical" one. The scientist may find a hundred characteristics in the objects which he is trying to classify.

Lecture 8

[Two Forms of Perception and the Aesthetic Phase of Reflective Consciousness]

We were discussing the aesthetic phase of the reflective process of consciousness, and we distinguished it 1) from the phase of Immediate Perception, and 2) from that attitude which we call the attitude of "analysis," and which we regarded as more characteristic of the thought process. In immediate Perception as a rule the sensuous content is reduced to its lowest terms. Consciousness is, of course, selective in character, and Attention selects what our consciousness is to be. In the case of immediate perception, through selective attention, we recognize only those characters in the content which are essential to our reaction. Therefore we recognize and attend only to what is necessary in [48|49] one's appearance—gait, garb, countenance, those things which are necessary to recognize him. As a result, when we attempt to call up the image of a familiar acquaintance, we have great difficult in calling up the features. But if it is an acquaintance whom we have lately met we visualize much more easily, for in the first meeting we pay especial attention to the form and features. We can call up little of the familiar acquaintance, because the form and features have lapsed from consciousness, and only the little remains which is necessary for ou[r] habitual reaction toward him. This is true also of our tools, the books one uses. We use economy in representing our objects—recalling just enough to enable the act to take place most readily.

But we also saw that there is another type of perception which is most analytic. Suppose the object is a specimen of an animal or plant which is to

be classified. The scientist, who examines it, has a series of tendencies to react, each corresponding to the act of classifying with one class or another. Such a perception breaks the object up into a series of characteristics. This analysis is dependent upon the different tendencies to react—and if these different tendencies were not present, there would not be the possibility of such analysis. e.g. When we meet a bicycle and in passing find ourselves in doubt as to which way to move, we and the wheel both turn in the same direction, and then turning the other way the wheel again turns toward you. We see here that our various tendencies to act are called out by, and answer to, different characteristics in the movement of the object. This is similar to the analysis of plants, etc. by the scientist, where he tears to pieces to classify. Compare with the analysis of an art critic in the presence of a work of art. [49|50]

So we have two situations, 1) in which we recognize only enough to bring the reaction, and 2) we recognize the different characteristics, etc. for analysis. In the first only a shred of sensuous content is there, but we may fill it in from memory—as a countenance, etc., and examine it. From one of a series of strokes of a bell, we can fill in those which preceded it, etc. But as a rule we get just so much as to enable action to go on. In the other kind of perception, we have a larger sensuous content which can be taken apart and analyzed.

Between these two forms of perception we have that of the sensuous whole, which answers to the aesthetic phase of consciousness. In this the sensuous content is one which has answering to it, a certain affective attitude—agreeable as a rule, out of which arises our appreciation of things of beauty—our aesthetic attitude toward artistic objects.

We want to insist, first of all, that this aesthetic object is an essential phase of our consciousness. It is a phase of all perception. It is true that it may be represented at any one time by zero. Yet it is a part of all consciousness, and it is always possible to present to ourselves the whole of which a given perception represents a part. In trying to pass a person on the street, we perceive just enough to miss him, but when another calls our attention to him we perceive him as a whole, a personality. This corresponds to what we may call intuition, in which the object is perceived as a whole, and held on to as a whole, not as a stimulus to a reaction, however.

This presentation is not a mere receptive process. You might think a clear "copy" of what is "there" to be the one characteristic of perception but we never can record the whole of an object; there is always a selection and something is left [50|51] out.

This selective process, which is present in all three phases of perception, is most marked in artistic work—in appreciation of a landscape. One who takes it in aesthetically constructs it as if he were going to draw or paint it. This construction reveals the selective process but it is not construction for reaction, nor on the other hand construction for the purpose of analysis by

the thought process. We do not react to the aesthetic image. The work of art is not an object of use, even to legitimately point a moral. Its function is not that of indicating to us what our reaction should be, as the glimpse of a tool might be. We cannot get both points of view at the same time, e.g., we cannot appreciate a sword as an example of fine engraving, and as a useful weapon, in one state of consciousness. We cannot think of the beautiful binding of a book, and of its practical use in the same pulse of consciousness. The aesthetic attitude is not one of action, so the mind would wander from the binding to the use and back again. We cannot have both attitudes at the same time. The attitude of appreciation is not the attitude of action, although the perfect adaptation of the object to action or use may be the very ground of appreciation. The attitude of appreciation is one in which we stand still—in which we quietly contemplate the object, not with a view to our reaction toward it.

It is true there are various theories among philosophers as to the value and function of the aesthetic consciousness (cf. E.K. Adams, *The Aesthetic Experience: Its Meaning in a Functional Psychology,* U. of C. Thesis '04).[1] Despite various opinions it is pretty generally agreed that one function of the aesthetic consciousness is that of presenting the object as a whole, to which a certain value attaches. This [51|52] aesthetic reaction represents an effective state of consciousness, e.g., an artisan fondles what he calls a "perfect" tool. It keeps its edge, or its mechanism is perfectly adapted to its purpose. The object here is presented as a whole, not as a single shred which serves to set free a reaction concerned with its use, nor on the other hand as an object for analysis and assignment to its class, but as a whole. One function then of the aesthetic state is to present the object as a whole, and at the same time to give a value to it.

Recurring now to the technique of primitive peoples out of which cult arises, we find that the life of the community as it becomes more and more complicated tends on that account to stress as important certain processes, activities, as hunting, reproduction, etc., which have extended over long periods, and tend to be broken up. It is important that the different parts of these techniques should be presented as wholes—that the parts be gotten together as single wholes, and that they be evaluated. The war dance does this by bringing together all the activitie[s] involved in fighting, lending assistance to others, etc., and thus tends to emphasize the solidarity of the group.

But all these processes, all their parts, are presented from the social point of view, i.e., in relation to the good of the group. Thus the techniques are associated with stories and legends of heroic service to the tribe. The tendency is to present all the elements of the process as a social whole. The same is true

1. Elizabeth Kemper Adams, *The aesthetic experience: Its meaning in a functional psychology* (Chicago: University of Chicago Press, 1907).

of the agricultural cults, as well as the dance. The process involves no immediate reward, but involves looking ahead and an identification of the later enjoyment with the present empty toil.

An industry as such cannot arise until this organization into a whole has taken place in the life of the community. [52|53] We find that among peoples where this organization has not taken place, it is psychologically impossible to get a person to stick to a piece of work. We find they are in and out of employment and don't do a full day's work at anything. (Cf. Spencer on Savage *indolence—wrong.*[2])[3]

One of the most remarkable achievements of humanity is continuous labor with the reference to remote results. One stage in making such achievement is the construction of an aesthetic object, which presents all these different phases in one sensuous whole, and gives all these elements the value which otherwise might be found only in a single phase. So dances, festivals have served this definite social function of bringing all these acts involving cooperation, etc.—acts which are distant in time, together, and in the second place doing this under such emotional conditions as will properly evaluate them.

The objects of worship, as objects of worship, have to a large extent so arisen. The mere belief in spirits, even tho spirits which represent air and soil fertility, etc., are not necessarily objects of worship, although spirits are that out of which the worship situation may arise. But when one gets an object which will gather up into itself a whole series of acts, and that under conditions which evaluate them, you have a situation out of which an object of worship can arise.

We see then that there is a close relation between the aesthetic and the religious attitude. This distinction however, needs to be made. The aesthetic attitude is not essentially religious although it does provide the object of worship. Objects of worship have been works of art in a large sense. Contrast the attitude of the owner of a house with that of his cat. The cat knows each corner of the house, and each phase may bring with it its appropriate reaction, but we do not assume [53|54] that the cat appreciates the house as a whole. To the owner, the house as a whole is contemplated as a home. This attitude is not an active one, but the house is presented in such a balanced way that it takes up all the activities which go on about it, into one aesthetic whole, and these activities and objects are evaluated as parts of that aesthetic object which he calls "home." When the owner moves to a new house it takes a long time for the new house to become a home. The home is lost in the shift, but when he does come to feel himself "at home," he feels that all his acts find a place in that conception, and have values growing out of it. Such a consciousness

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2. Underlined by hand in typescript.

3. Probably Herbert Spencer (1820–1903). Possible title: *The Study of Sociology* (London: Henry S. King, 1873).

of a whole and the evaluation that goes with it has played a great part in the development of reflective consciousness, e.g., religious cult has developed about some phase of aesthetic appreciation, and there emerges from this early stage the object of worship, as the object which carries with it the values of these acts. Ceres, the Goddess of grain, e.g., represents the whole food process. She takes up into herself the entire life history of the grain, and all the relations of the persons dependent upon the soil. Such an object takes up into itself all the activities and presents them as a sensuous whole, and at the same time gives a feeling of value to them. The cult represents this relation between a series of processes, and also the value of these processes to the community. The dance is the earliest form of art, save perhaps the rude pictorial form, and we lack evidence that this existed before the dance. But our referring the dance to the aesthetic consciousness might lead some to think that it is not concerned with active processes. True, it is not directed toward a distant goal, but when in the aesthetic mood, the dancer appreciates the rhythm and the aes[54|55]thetic response involved in the activity, the dance goes off of itself. The dervish does not deliberately set himself to dancing, but is caught up by the process with which he does not consciously identify himself, even though he himself is dancing.

One of the results of an artistic presentation is the getting the whole where were only the parts before, and the giving of value to the whole—and this value now flows out to the parts. e.g. The agricultural presents a whole which serves to evaluate all its different stages, and this evaluation causes the carrying away of the parts, perhaps in a certain definite way. The whole process then, is thus knit together by the aesthetic whole.

This phase of aesthetic presentation is a possible one in every perception. e.g. The tool or implement is constructed out of a whole and receives some sort of an emotional response, or aesthetic appreciation which serves in directing action.

It is important to get these different phases of perception because of their import to education. The religious cult and myth grow out of this aesthetic phase, and also the impulse to recount and portray and explain; this results in theology, mythology and science. All these spring from this aesthetic whole and evaluate it.

Lecture 9

[The Role of the Aesthetic Object in Reflective Consciousness]

We have been insisting on a point which is of great import to pedagogy, i.e., our presentation of objects in teaching is not in terms of "the working image." It is not the bare characteristic of the thing—which serves as the stimulation of the act, as in the "working image." The sensuous whole is not that which sets free the activity. That which is responsible for the reaction is always less than the [55|56] object as such. This is a matter of extreme importance to our psychology of learning. We wish a child to acquire a knowledge of an object and the immediate reaction which belongs to that object, when only a small part of the content is there for the child. e.g. In mathematics we expect a child to get hold of a single relation forgetting that we have an entire content in our perception and that the relation exists in this content. Our attention is thus directed to a single phase of the whole, while the child has not this sensuous whole. The economy of consciousness, so far as the activity is concerned, reduces this sensuous content to its lowest terms. The extent to which the sensuous content can be reduced comes out in "meaning," in a striking manner in the use of symbols. In such a case the sensuous element is the mere image of a word, of articulate sound! This is all that is necessary to put us in the attitude toward that which is to follow. e.g. The use of [the] word "with" puts us in a certain definite attitude toward that which is to follow. If the right word does not follow we feel that a mistake has been made. When we get into thought itself, where there is no apparent image, the sensuous content is reduced still

more to a minimum; in abstract thought no sensuous content seems left. But there is always sensuous content though it may be reduced to its lowest terms, e.g., crossing a street and a vehicle approaching, one hesitates a moment, it is after he starts to cross that he feels he can. Just what is the stimulus? Analysis shows him moving back and forth, vacillation when he does move one way or the other, just what the sensuous experience is, which is responsible for the movement at that point, is hard to determine. In all rapid movement it is hard to identify the sense object. So if we always refer movement to [56|57] reactions to stimuli we cannot always identify the object responsible for the stimuli. But there is always more in the object than we use.

We have on the other side, another type of objects—of a more reflective sort—one of analysis in which you pull the whole to pieces. Its unitary character is subsidiary—its wholesomeness is not essential. We attend first to one part and then the other as a scientist. Here attention is not only taken up with a single phase of the object, but with a series of aspects and with tendencies to a series of corresponding reactions. Such an object does not present a whole of sensuous perception. We take the elements to pieces and attend to the relations between the elements rather than to the elements. It implies a whole behind the parts. Our analysis actually brings out all the parts and thus makes the whole more evident than it was in the sensuous presentation, yet it is not a presentation of a whole.

The phase of consciousness which represents a sensuous whole is neither a single aspect which serves as a stimulus to an act, nor is it a group of aspects with their relations. The aesthetic consciousness rather lies between the other two phases, that of the working phase and the analytical phase. It is an implication of both, but is distinguished from both. We have seen that there is need to emphasize the aesthetic phases, over against that of the working image.

It is important for the Psychology of education to recognize the relation of the aesthetic image and that represented in the analytical phase of consciousness, e.g., we wish to teach the child a rule as, e.g., to extract the square root of 25. We have an object before us which is taken twice as factor. We analyze 25 and get the [57|58] phases of 25 which are stimuli to the succeeding phases of the object. This might be present from a geometrical point of view using the square. We have such content in our adult minds as a whole, and certain phases serve as stimuli to processes of abstracting in extracting the square root. Now when you give the child a rule, you give him an object which has meaning to the adult but there is no such object present to the child. If on the other hand you start with the analytical phase of consciousness—if you tear it to pieces you get a third aspect, an abstract object which is not a proper object of presentation to the child; it is too complex.

Now there lies between these the aesthetic phase of consciousness which is a sensuous whole, which embodies a feeling of all relations, and an appreciation of the object as a whole, and this is the proper object of perception

for the child of tender years. This has an important bearing on educational theories.

We cannot accept the culture epoch theory, but there is a definite parallelism here between the development of the consciousness of primitive man and that of the child. We do find writ large, this relationship in the development of these different phases of our consciousness of objects. First of all we have in primitive man no consciousness of the object in the full sense. We have the simple reaction to the object, without the power to appreciate the object as a whole. Again, in the initiation ceremonies, we find a group of relations which we at least discover in our study of them. We conclude from our analysis of them that they serve to emphasize the virtue of endurance, and give definite social meaning to traditions, customs and habits—meanings physiological and social. Now when we analyze the [58|59] ceremonies into their elements, we seem to recognize the relation between the emotional attitude of the youths, and the later conduct of the life of the group. But in what sense are all these elements related, or are they present in the consciousness of these Central Australians? Are they all there? We cannot be sure that they are any more conscious of the relations involved, of the adaptation through these ceremonies to their future conduct in the life of the group, than the horse is better adapted to his future environment as he developed his five toes into one. With the primitive man it is likely the sensuous whole which guided them. It was a phase of consciousness lying between a simple stimulus to a reaction, and that of a full analysis of the object. For them, the sensuous whole is the reality.

Some have suggested that we prepare initiatory ceremonies which will present a sensuous whole for immigrants to our country, and for our American youth who are about to enter into citizenship. But for us it would be difficult to give such reality to this ceremony as is involved in the initiatory ceremonies and dances of primitive peoples. Our whole attitude is so analytical that we would have difficulty in presenting such a ceremony as an undivided whole. To unite such phases of our civic life would be as sentimental as a child is who tries to put together the parts of his dissected cat. We can reproduce the harvest home and enjoy our husking bees but the actual thing itself has gone to pieces under our intellectual analysis. But the primitive man does have in these ceremonies a sensuous whole, which is on the one hand, more than a simple stimulus, and on the other hand, has not been analyzed to a skeleton of meanings, of relations. For us some objects have disappeared between our intellectual fingers, but it is [59|60] definitely the function of art to reconstruct these wholes. But today we are interested only in utility, in the practical that serves to set free our reactions, and as a result we are destroying these artistic experiences of life. This lack of an initiatory ceremony is a serious one because its moral value is tremendous. But it is essential that it be presented as a sensuous whole, so it cannot be done by the values of citizenship being presented in

a lecture, with the granting of diplomas. This is the distinct function of art. It serves to hold on to these sensuous wholes, and to present them as such to the members of the group. This is not the art of the artist. In architecture, and in the making of utensils, the form of which stands out and has a value in itself, we find values which are independent of the instinctive use of these objects in practical ways. cf. Chippendale furniture. This has meaning—as beauty, form, grace, distinct from the mere instinctive use of the chair, for example. This meaning is also distinct from that given by an analysis of the object. The sensuous whole has an independent value, and art holds this aesthetic form. This is distinct from the mere diagram or blue-print of the pattern of the chair, which would indicate its uses, the reactions it makes possible.

It is in this aesthetic form that an object, when gotten into the mind of a child, remains there as a content to which he returns time and again. You can drill a child in the multiplication table, without calling attention to the relations which such a table implies, but this is not the attitude of the earliest Greek mathematicians where the continuous and the discrete were not yet separated as in the Pythagorean geometry.

The whole which we should give to the child is more than the rule, which serves [60|61] as a stimulus to the reaction; and it should be more than an analysis of a situation. If we get the child to appreciate the object in its aesthetic form, 1) in the first place it has meaning for him, 2) it appeals to his interest so that there is a real affective response so that the child retains it.

It is important to carry art over into industry because it gives us objects which have the value of sensuous wholes. We recognize this easiest in literature where there is a conscious need of form; cf. the story form for the use of little children who cannot analyze—who cannot use abstractions. So early instruction very naturally takes the form of story with plenty of illustrations, if we seek more than simple reaction, blind habits or response. This is just the situation with primitive peoples. The whole content of their reflective consciousness is in the form of sensuous wholes. They have gotten past the animal stage of simple reaction to stimuli but have not reached the stage of intellectual analysis.

We have already studied the conditions under which construction and reconstruction take place: 1) a technique held in more or less conscious fashion; 2) a cult which in the outcome of this technique, and has reference to a distant object; 3) there is a break between the cult and the distant object, and myth comes in to fill up this break and interpret the cult. Story and myth are to explain cult. In the case of magic this break between sensuous content and distant object is filled by the wax figure, the image of the man to be affected by the magic. Contiguity plays a part, but there is also a definite desire for the image, the wax figure, to serve as a mediator of this experience. The building of myth is similar to the building up of the wax image. Art of all [61|61[a]] sorts arises out of this situation.

Plato treated all art, that of the sculptor, poet, and rhetorician, as an imitation. There is a certain justification in this, because [of] that which fills the gap between the near and the distant object; it is a kind of surrogate for it. It serves to fill in the gap, the break, and when it gets the full sensuous content, it is a work of art. This comes before the intellectual stage.

Myth had two important phases: 1) it is symbolic, representing the distant object, consequently having symbolic value; 2) it represents a sensuous whole, and this makes of it a work of art, which is more than a mere stimulus to reaction. e.g. A person trying to injure his enemy by melting away a wax image has a different attitude toward that enemy to what he would if actually stabbing him. In stabbing there is slight stimulation and this serves for an immediate response. In the wax image situation he will give more attention to the whole of the sensuous object. Since he is constructing this image, he must put in all the parts, so there results a sensuous whole.

So the primitive man in his cult is interested in constructing a sensuous whole, an object which will take up into itself all the separate acts involved, and give an appreciation of the entire whole, whether the object be one of love or hate. In such a structure as that, we have art, whatever the material be that is used—whether plastic, the story, drama, etc. The effort is to get an artistic whole. We are interested in all the elements, and present them as a whole, just as the primitive man does in constructing a whole as an object with reference to which he contemplates action. This is the point of contact between the aesthetic image and worship. This sensuous whole is precious for educa[61[a]|62]tion, but we shall have to leave the psychology of the aesthetic object and give attention to the symbolic phase of the content. We shall study the social implications found in the representative character of this content.

Lecture 10

[The Aesthetic Object and the Working Image]

We have indicated the place of the aesthetic image, or aesthetic object, in the development of consciousness. We have noted its relation to the stimulus on the one hand, and to the process of reflective analysis on the other. The attitude of the psychologists is frequently that of supposing that consciousness is represented by a flood of sensuous material, which is organized by consciousness, and brought under control. James in his "big blooming buzzing confusion," thinks of the child's consciousness as bombarded by sensorial stimuli.[1] But, whatever the baby's experience is, it is a mistake to assume that what comes before a definite, sensuous object is an uncontrolled sensuous mass. That which precedes the sensuous object, the aesthetic object, is that element which simply serves as a stimulus and sets the reaction free. We must remember that the selection of sensuous experience (the work of attention) is due to our *reactions.* The tendency to react to a large degree serves to pick out that which corresponds to that tendency. Of course there are other phases of attention, but in its early form it is the attitude of the animal which is determined by the motor coordinations already in existence—it is this attitude which is responsible for the selection of one stimulus rather than another. Of course conscious attention has other elements in it, but the coordinations of the young animal predetermine what he will respond to. cf. Dog's hunger. We cannot get a dog to [62|63] attend to a sensuous content which has no

1. William James, "Discrimination and comparison," in *Principles of psychology,* vol. I (New York: Henry Holt and Company, 1890).

relation to his tendencies to react. These tendencies to react determine the selection of images to which we will respond. These constitute the working images in which only enough sensuous content is involved as will set free the tendency to react.

In contrast with the working image, the aesthetic image does not represent a pruning down of a sensuous mass of material, so much as it does an enlargement, a filling in, an addition to what was a mere characteristic. The working image as stimulus to which we attend is not a complete physical object which is held before consciousness, but only enough sensuous content to start the reaction.

But the aesthetic image represents a construction, a building up of material, rather than a confused mass of sensuous content. Take the savage or the child in the presence of a steam engine, for example. It is difficult for him to take it *all* in. He can get an impression of a huge, terrifying object, or an object which moves fast, but to actually take in all the machinery, and grasp these parts as one whole—this belongs to a mind which has had more experience or training, before it can hold on to all these details.

So the construction of the physical object as a whole of balanced, sensuous content is an achievement and it cannot be done until tendencies have developed to which each part of the object answers.

In case of the artist, we recognize that this balance and form is a construction, is a distinct creation. We find that when a trained eye looks at a landscape or a painting, it sees it as a whole, while the untrained eye cannot hold on to these various elements, and keep them together. This aesthetic object, then, involves 1) a creation and 2) it represents an evaluation, the response which gives meaning to the sit[63|64]uation.

We have traced how this arises in cult, and how it is extended first to deal with a distant object, and later to deal with more remote situations. The relation between planting and reaping is just as much one of magic for the primitive man, as that of killing his enemy. Cult and myth are thus means by which the primitive man constructs the full sensuous image—at least it is in these processes that the aesthetic object has had its definite function. The aesthetic object tends to appear in every perception, but it is in the cult and myth that it comes out most fully. So far we have stressed the dance as one of the earliest phases of primitive cult. It represents a situation in which a whole or rhythmic movement, with its various details of war or agriculture, can be held in consciousness.

There is another phase which is found in decoration, in primitive drawings and depicting of scenes—the latter growing out of decoration. But there are types of decoration which seem to arise out of the processes of construction, and, e.g., the markings left on pottery by the basket molds which are burned away. These utensils present, in all probability, occasions for the decorative sense. They give motives for decorations but they do not account

for the decorative sense. These markings at least indicate the history of the processes of construction, out of which decoration arises.

If we look at the early paintings and drawings found as frescoes in the caves of France we go back to a type of art similar to that found amongst the Central Australians and among the Bushmen of Africa. Gross's *History of Art*[2] gives some of these which are very interesting and suggestive. The drawings lack perspective, but they do show movement. This would be natural for people [64|65] in the hunting stage whose eye must be quick to detect the animals they hunt, and this is the feature that would most impress them.

It is to be noted that these two types of art, first the decoration of pottery, and second, the depicting of certain scenes, seem to arise without reference to cult or religious bearing of any kind, at least this is not characteristic of them. Both seem to be of a primitive and instinctive character, just as a child decorates or draws upon the edge of his book, cf. Baldwin's *Development of the Child and the Race.*[3] The child very early shows a tendency to draw objects—a tendency which develops far in advance of his power to control a pencil. The tendency is in the nervous system, to represent the object in some way, even when likeness is entirely lacking. At first this lack does not bother the child. This is an interesting attitude from the point of view of the importance of primitive origins. Both these tendencies are found in children, 1) to decorate implements and 2) to bring back scenes, depict the past. This is an endeavor to reproduce what is in the mind's eye. There is a visual image there which is to be reproduced, but it is important to remember that it is the aesthetic image and not the working image. This aesthetic image belongs just as much to our experience as does the working image. The working image is a mere shred, e.g., of a person, and it would be very difficult to fill out the face or the building with which you were familiar; in memory we only take hold of and keep hold of that which we make use of in some way. But when we try to reproduce the object we deal not with the shreds of a working image but tend to reproduce the whole of the object. There is a relation of the aesthetic object's construction in imagination to the tendency to express artistically—be[65|66]tween the tendency to build up the sensuous whole, and its expression in art. Perhaps the most satisfactory philosophy of art recognizes that art is expression. The aesthetic experience is an experience of expression.

We can see a distinct relationship between the two, in that the process of expression helps bring out the details—to fill in the object. We emphasize again that the sensuous objects, to begin with, are not there as pictures cut

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2. Probably the German Ernst Grosse (1862–1927). Possible title: *The beginnings of art* (London & New York: D. Appleton & Company, 1897). [German original: *Die Anfänge der Kunst* (Freiburg i. Br.: Mohr, 1894)]

3. James Mark Baldwin, *Mental development in the child and race: Methods and processes,* 3rd ed. (New York: Macmillan, [1895] 1906).

out of a book, but they are constructions. Then when we approach to the construction of the complete sensuous object it is to fill in what is, as it were, mere forms or schema. The process of drawing, dancing, and us[e] of musical tones helps to fill in and creates this sensuous object. It is not all there to start with, but the actual use of pencil, brush or chisel, or implement he uses with clay or marble, enables one to fill in what the mind demands.

This is true of the storytelling of primitive man. To get details before them, they resort to drawing the animal. The process of expression is not a mere objectifying, or externalizing of an image that is there, but it helps in the actual construction of the image. The tendency to fill in may be slight, but it is definitely there. Take the situation represented by the dance; the people wish to bring the values of the movements in fight, or in agricultural processes, and the movements of the dance serve to bring into their thought these details, to relate them to each other, and thus create a sensuous whole.

The voice, too, is important. Tones and intonations are of tremendous value in the social process, and when brought back and reconstituted in the cry of the victim, the enemy, they are enabled to reconstitute the scenes. [66|67]

Again the reason our imagery is not full—is not because we are not able to hold onto more, but because we select only what is necessary. Then we add to this to make the aesthetic image. The motion in a dance or in pictorial art is this filling out. The motive in decoration is derived; it is that of relating design to the object decorated. The actual means of expression helps to fill out the image.

In one way, *expression, decoration,* etc. seem to evaluate *ownership.* It is the same with implements. There are besides the tendency to represent animals, etc. on the article, which have to do with the usage, e.g., it is good for fighting, or doing this thing yet this is incidental.

Work of this lecture. The character of the sensuous object in relation to the stimulus, i.e., in what sense is it a creation? There must be a construction, a holding together. The mind['s] attitude is that of elements. So the constitution of the sensuous image is that of a creation and art is a development of the expression in building up of the sensuous object—the artistic is part of the building up of the sensuous object as much.

LECTURE II

[Expression and Emotion]

We have indicated already the essential social character of the conscious process, but its relation to expression brings [out] the social character more clearly.

The relationship of expression to the presentation of the object is that out of which art arises. We saw that the selective character of voluntary attention gives us only those sensuous contents which are essential to the reaction itself. This is the same type of attention, e.g., that we have in the lower animals. One seeking to teach an animal tricks finds the greatest difficulty in getting him to [67|68] give attention to what one wishes him to know. cf. Hobbhouse in *Mind Evolution.*[1] It is important to know that [the] animal is not sensitive to just any stimulus, but the stimuli he attends to are determined by his inherited organizations; the dog does not see or hear anything except what the inherited reactions answer to; you cannot get him to attend to a new stimulus. I insist on this, for when we come to present an object as a whole [a] constructive process takes place. In this process of building up, the expression is active. That process which shows itself is an attempt to draw, for to draw is to reinforce, to fill out an image. The dance is another phase of it—rhythmic processes seek to fill out.

The artistic process then serves a definite purpose in helping to fill out the whole sensuous object.

We have spoken of this as expression. Expression is itself social, because it implies something to express and someone to whom it may be expressed.

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1. Leonard Trelawny Hobhouse, *Mind in evolution* (London: Macmillan & Company, 1901).

Darwin's theory of emotions[2] has been criticized on the ground [that,] e.g., one does not express emotion in order to see what the result will be in another. This is a false theory. We do not find this in the primitive mind nor in a direct reaction such as anger, etc. From another point of view, Darwin's theory involves a statement of emotion as determined by its social function. The earliest stages of the act are emotional in their character. While modern psychology would not argue that it is a reparable stage of consciousness, but would recognize that certain phases, stages of the act are predominantly emotional.

This phase of the act then is not an expression of emotion but it, the phase, is emotional in its character. e.g. Shaking [68|69] of an object to show anger is not an expression of emotion but an emotional expression. If it is a genuine act it is not one in which he recognizes his own emotional state but it is an act with reference to another person and is controlled by its effect on the other person.

The act of expression is social. If we speak of a certain thing as a process, we can speak of this process as social, in that there is an attitude in the individual which answers to the stimuli in the other, and the expression is determined by these stimuli. The process of expression is one which is dependent upon the social situation, just as the food process is dependent upon the physiological stimuli, etc.

Yesterday we discussed expression as an individual thing, but the artistic, sensuous, aesthetic phase is necessary to its completion.

Let us look at expression in a more general way. The process of expression is essentially a social situation in which other individuals are present acting as stimuli, their presence serving to control the process.

In order to recognize this fundamental social character, we have to consider the so-called processes of expressions—what they are: the current theory brings them under the general head of gesture. Gesture is not to be limited to movements of the arm. Movements of the arm and body as a whole are pantomime.

A quite different class of gestures are those which come under the head of mimicry which refer to the play of the muscles of the face, the direction of the eye, the movements of the nostrils, muscles of the mouth, etc. The expression of mimicry is that ready response to another person to whom there is relationship and tends to [69|70] take some expression. How far this is imitation, i.e., how it is primarily imitation or imitation secondarily, must be studied.

Besides these two groups of gestures, there is that more important one, language. It is recognized that it should be classed under gesture. There is of course, no difficulty in recognizing the difference between cry and other expressions of emotion. There can be no fundamental difference between the

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2. Charles Darwin, *The expression of emotions in man and animals.* (London: John Murray, 1872).

expression of cry and the expression of face, hands, etc. due to the same situation or crisis. Of course it is recognized that all articulate sounds are differentiations of emotional cry made in connection with emotional attitude—food, sex, etc. The point which has not been worked out is the relation between the emotional cry and the word—articulate sound which is the symbol of a meaning for an object. This gap between the two seems to be pretty wide but can be bridged over by a genetic study of the different emotional expressions.

The emotional expressions have been considered from the point of view of the individual form. There have been numbers of theories regarding this. That of Darwin is the most important. Darwin's is not a unit, i.e., a single theory. That part of it which is useful is the identification of these emotional expressions with the earlier useful acts. They appear as "vestiges." In a study of Darwin we find vestiges of organs useful only in lower forms: bones, appendix, valves in the veins, etc. are for forms going on all fours. Veins in the body have valves, legs do not, we get too much pressure and varicose veins are the result, so valves are not worked out for upright position. Such situations are the greatest evidence of the development from other forms.

So these expressions are the vestiges of earlier useful acts and this is the most fruitful of Darwin's theory. Why is it [70|71] when we reply in a snarl that we raise the lips over the teeth? The dog actually takes his weapons out of the scabbard while such an attitude in man only serves to express the emotion. A great many emotional expressions go back to these earlier useful acts.

But Darwin did not think he could completely explain emotions as vestiges, e.g., the attitude of subjection to the master of a dog—crouching, tail between the legs, opposite emotional state, and Darwin's naive psychology says the dog feels this opposite state, he acts in this opposed way; the assumption of opposition of emotional state leads to opposition of attitude. This has been dropped.

Another theory is that of Spencer. The expression of emotions is simply an overflow of nervous energy. Spencer thought of the overflow as taking place first in rills, then in rivers. It would first run out to the nerve paths leading to small groups of muscles; and then, if all was not yet run out, it would go to the skeletal and larger muscles. So first to finger and hands, then to larger parts. This physiological theory of Spencer's is important in that it calls attention to the condition of emotion—i.e., this damming up situation is one of *tension, inhibition.* This is important. The assumption that it goes to smaller then to larger muscles is not true at all.

Another general theory of emotion which has been associated generally with aesthetic doctrines is that which assumes that the gesture or emotional expression is one which embodies an idea, i.e., it does not express mere feeling but an intellectual attitude as well as an emotional attitude. This theory is developed largely by artists on the stage where gesture is related to the idea. But the genesis of emotion is out of gesture itself. The [71|72] theory, however,

recognized the relationship between idea and expression. It is important on this account.

Wundt recognizes emotion as a psychological process and just as we have a psychological process elsewhere we have it here. On the other hand, he makes use of association between gesture and affective states in the social situation, which certainly does advance the theory of language and the process of gesture as such.

See: Dewey's articles on Emotion in the early numbers of the Psychological Review; Wundt, Volker Pschology; the chapter on Language in Judd's book gives Wundt's position; Wundt's handbook; See Angell on the emotions for Dewey's theory.[3]

3. John Dewey, "The theory of emotion. (I) Emotional attitudes," *Psychological Review 1* (1894): 553–69; ———, "The theory of emotion. (2) The significance of emotions," *Psychological Review 2* (1895): 13–32. Wilhelm Wundt, "Die Sprache," in *Völkerpsychologie: Eine Untersuchung der Entwicklungsgesetze von Sprache, Mythus und Sitte,* vol. 1 (Leipzig: W. Engelmann, 1900); ———, "Mythus und Religion," in *Völkerpsychologie: Eine Untersuchung der Entwicklungsgesetze von Sprache, Mythus und Sitte,* vol. 2 (Leipzig: W. Engelmann, 1905–1909); ———, *Handbuch der medizinischen Physik* (Erlangen: Ferdinand Enke Publishers, 1876). James Rowland Angell, *Psychology: An introductory study of the structure and function of human consciousness* (New York: H. Holt and Company, 1904) (probably Chapter 18: "The nature of emotion").

LECTURE 12

[Gesture, Communication, and Consciousness of Meaning]

We discussed gesture as a general term for expression, i.e. generally called emotional expression. We have seen that gesture can be looked at from such a point of view that it can include pantomime—movements, mimicry—movements, and also voice—articulate sound.

The theories of these expressions we have reviewed, Darwin's vestiges, Spencer's overflow of nervous energy, psychophysical, affective stages of Wundt—this latter recognizes Darwin's vestiges.

There is an additional element quite essential to explain the theory of gesture. These movements, whether pantomimic, shaking the fist, or mimic—as of the face, eyes, and finally all the attitudes of the body, all represent the early stages in acts. It is a preparation on the part of the animal form for an activity that has commenced. Many of these gestures go beyond this, e.g., articulate sound which has passed over into media for thought and meaning. But if we trace articulate sound as well as all gestures to the beginning, [72|73] we find they represent early stages of activities—acts which are social in their character, acts called out by other forms in the group. These movements, then, the beginnings of acts on the part of the individual, have reference to other forms in the group. e.g. The getting ready in fighting represents the gesture. The first steps in getting ready constitute the expression of anger—gesture. These involve the backing up in the corner, etc. These attitudes may not be recognized as part of striking, but we do recognize it as a hostile attitude. Also the movement of the eye is a hostile

movement. These early stages are those out of which gesture is constructed. They are also those out of which articulate speech finally develops. Tenseness of muscle, etc. adds to this preparation.

This preparation also affects circulation and respiration which shows in the expressions. All these are indications of the attitude of anger, and if traced back are found to be the first steps in the preparation for acts. e.g. Two dogs tails up, teeth bare, etc. All these movements are the first stages in the act of fighting. These first stages are particularly important stimuli. If you are going to meet an attack you want to meet it early, e.g., in the social group, in the jungle the beginnings of acts are the most important stimuli to the others. e.g. In fencing, in boxing that is necessary[;] to anticipate a blow is to respond. Now that movement of limb and body is of tremendous importance for the life of the form in that social situation, just as important as the food and temperature stimuli—an importance not recognized by Darwin.

So these early stages of the beginnings of acts [are] of great importance to socially organized groups. They have more importance than recognized by Darwin in [73|74] his "vestiges" theory. But their position, that of the beginning of the act, the first step in the act itself; this gives them a peculiar importance, a[s] social stimuli[,] [as] actual physiological beginning of the act[;] and when the animal or man becomes reflectively conscious, these gestures become significant, they stand for certain things, what is going to happen—*symbol.* They are of first importance. They are the attitudes which are symbolic of the act which is to take place. These early forms are important because they are attitudes, i.e., readiness to act in a certain way under proper stimulation—called "form" in athletics. These attitudes come before every extended activity, not only physiological but psychological. We are ready to do a certain thing, the body is adjusted to it. e.g. Sitting down in a chair—the feeling of readiness to sit down may be symbolized in the word "chair," but the consciousness of readiness to sit down is made up of the kinesthetic and motor imagery, is what we mean when we say we know that a thing is that thing, i.e., chair.

This early stage has value not only as a stimulus but also as representing consciousness of meaning. Turning to psychologists, the concept or consciousness of meaning is identified with our consciousness of attitude—James, Royce, Angell. Gesture then comes back to the beginning of the act, which serves as stimulus for other forms, to react, and when the form becomes reflective the attitude is a readiness to act, being ready to do a thing.

It is in this early stage that activity itself is in the center of attention. In conscious volition, e.g., we have an image—we recognize, i.e., image the act we are about to do. This distinguishes it from involuntary acts. We are definitely conscious of going to do such a thing, as [74|75] to pick up something, have the image of doing it, and that image comes back to the early stages of

beginning of act itself. All voluntary acts of this sort are dependent upon our consciousness of attitude, of what the act involves.

We speak of ourselves as having knowledge of a certain subject—all there is to know about it. This does not mean that we have all these ideas in consciousness. What we really have is a feeling of perfect readiness to act to that subject. Take such a situation represented by the different parts of speech in a sentence, e.g., use of prepositions of a certain sort, conjunction—how is it that we can jump from word to word—jumping the crags—attitude of relation—James' and Stout's Scheme[s].[1] "But," "though" carry a perfect definite attitude. On the other hand these put us in readiness to take in rapid speech, see ahead what is coming. These beginnings of acts are of tremendous importance to us, they start us off on the acts. Our conscious control does not extend down to nerves, i.e., control of muscles, but our control consists in getting things going according to habit—our inherited tendencies, which we set off by motor images. When consciousness attempts to get beyond, trouble follows. To follow each typewriter or piano key trips one up, just to start the act is all we can do. Volition then is holding the beginning of the act—this starts it and the rest takes care of itself. Our tension can hold but few elements. Our control does not depend on holding a great number of things—but the beginnings, the image of early steps, not of completed act, which sets the rest going. We can see then that gestures have such importance in consciousness whether from point of view of individual or others—it is what I mean to do, or other is going to do. The external indications of these early attitudes are the [74|75] most precious stimulations that animals have, they are essential to humans.

To get back of this to language—why should rhythmical breathing form our thought? Language seems to be very arbitrary, having little connection with conduct. We can understand the relation of joy or terror in a sound and conduct—breathing changes, etc. But why should we build up such an arbitrary mode of expressing consciousness, i.e., language? Gesture?

It is not difficult when we see that language grows out of gesture and that this is social, strengthens, gives meaning. Language is developed out of these beginnings, attitudes which indicate what I am going to do, what others are going to do to me. There has been much study of the relation of image to content in our conduct, and we find that it comes back largely to the articulatory processes, i.e., in auditory and visual imagery, but to a large extent the imagery controls our conduct, our concept (e.g., Gulliver's man who carries

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1. William James, "The stream of thought," chap. IX in *Principles of psychology,* vol. 1 (Henry Holt and Company: New York, 1890); probably George Frederick Stout (1860–1944), *Manual of Psychology,* 2 vols. (s.l.: University Tutorial Press, 1898–1899).

about spade, objects and shows them to give the idea.)[2] Suppose our minds were actually condemned to actual images of everything, but we have words. What are words? Words are imagery attitudes.

2. Mead probably refers to a story in Part III, Chapter V, of Jonathan Swift's *Gulliver's Travels* (1726) about a professor who suggests abolishing speech and replacing it by the showing of things on the assumption that words are only names for things.

Lecture 13

[Cult, Myth, and Education]

We have discussed gesture from the point of view of communication and from the standpoint of concept—consciousness of meaning. We have seen that its function is a communicator and it is the foundation of concept. We have seen that symbol is an attitude and is a part of gesture.

This nature of gesture is of great importance especially for education. The function of communication in education and of education in communication is the central point in the philosophy of education. Education involves communication and edu[76|77]cation has in one form or another affected and controlled communication, therefore they are closely related.

We come now to education. Recall first cult and technique—cult as technique in its practical phases—myth as an explanation, with function of carrying cult from one operation to another. Myth is essentially explanatory in character. Cult which is conveyed—in its application to distant objects—with its additions, medicine man, etc. The process of conveying and acquiring must be worked out in the technique itself. The psychological explanation—motives, i.e., development of magical qualities on one hand and holding the community on the other. These motives have their place in the development of myth as such. They come in explanation of cult—this is the essential process. Carry the situation further back and we have the application to a single person, the way of operating on a distant person is in use of language—and we have seen the very carrying out of the operation itself carries with it belief, talking, words themselves carry belief in the effectiveness of the charm.

Cult is a social function, which requires the backing of the community. Where the cult is pronounced with reference to this distant individual it is also pronounced with reference to the audience. Not in the sense of their belief

but in reference to their response, support of the audience to the cult. This interplay between the two, person who speaks and audience who supports it, are an essential part of the development of the cult itself—priest and community. This then also has great importance in building up the myth which goes with the cult.

This influence of social reaction of the community on the cult is of the very nature of education. This influence of community on the medicine man or elders is [77|78] the process of education affecting the *materials* of education, i.e., education is the conveying of processes, ideas or spiritual property from one group to another. This process of conveying is one which is continuously affecting the content which is conveyed.

We have indicated so far, the relationship between the exercise of the cult itself and the acceptance of its efficacy, the conditions under which it must arise, all must aid in producing belief in it. We must note here the conscious skill with which people carry this out. They combine deceit of others with genuineness. cf. Spiritualistic seances. These belief elements which involve the process of communication are continually affecting the matter communicated.

So far we have dealt with cult in its magic relations. We also have developed myth into cosmology, a theory of the world out of a similar situation. It has to do with situations arising out of agriculture, e.g., flocks, herds, etc.—it is necessary that we shall control the forces that affect the increase—note Jacob.[1] The controlling of these forces in its first appearance is magic. These are worked out, embroidered into cult itself. It is necessary to carry over into the processes of agriculture the value of the community in some kind of emotional terms so that the drudgery of each part may be infused with some kind of enthusiasm. The motives upon which the individual depends are worked out in the cult and myth, then the myth itself worked out in a theory of the earth and heavenly bodies to gods, and thus to cosmology. What are the influences which carry myth as an elaboration of the cult over into cosmology? Part of the myth in the cult is first psychological, that of conveying cult to the community with an emotional value so that [78|79] it will become holy, sacred. Myth, then, from this point of view is a *part* of the cult, the process of communication.

It also has its explanatory value. When cult is carried beyond myth in cosmology, a theory of the world, we have motives beyond the cult itself, motives of curiosity as to the movements of the heavenly bodies, motives also of story-telling, the one out of which science is supposed to have sprung—the other that out of which art appears. The aesthetic phase came earlier and is more important than the scientific. Cosmologies appear in the form of stories, dramas, and only later are they subjects of scientific criticism. Contrast Hesiod

1. Mead probably refers to the story of Jacob in the book of Genesis.

with the early Greek philosophers. In Hesiod we have a collecting of the early Greek cults and myths, put in ordered form as to their principal deities. The Greek cult belonged to early communities originally of the same stem. All came from the same place but are now separated by mountains, therefore the same cults are now developed differently. When the people came together later, a harmonizing of these myths became necessary. Hesiod represents the harmonizing. There is behind this a spirit of organization and system to account for each god and their specific relations to each other. Still it is presented in the form of stories and the aesthetic element is most prominent. Then [it went] from this to the early Greek philosophers and the scientific explanation is there prominent, and all superfluous details beyond explanation is eliminated. The cult presents the world in an aesthetic phase which we can distinguish from magic.

The result of the cult, the way it is presented, is the dominant motive for its development. e.g. Spencer and Gillen's accounts of Australian magic.[2] Very little is sought in cult beyond the practical effect of the cult itself. It is a working cult and there is very little motive be[79|80]yond its working. Explanations are not an essential part of the working of the cult, though we may find explanations of its working reasons for its use.

Take, e.g., the Bacchus or Orphic cults in Greece which lead to a sense of possession by the god of wine. Possession was the motive, for all develops the orgy, to bring about the situation of possession; so that the development of the myth was to explain the relationship between Bacchus and the other gods, and later develop it into quite a mythology. There is then a working relation of cult to the situation, a relation to all other cults.

Myth was first of all simply a part of cult; now what led to the development of myth into an explanation of world, nature which is not bound up with the cult? The image here is an aesthetic image, the view of the god or spirit as a whole. In the case of animism the magician has a familiar or working spirit that he can make use of. Such a spirit serves the purpose of the magician, but is present only when he needs it. It is not the deity of the community. It exists only when it is in use. In the building up [of] a spirit which is brought into relationship to [the] whole group, as in war, etc., the building of the deity as over against the familiar spirit, this development has behind it the aesthetic motive. This aesthetic object is one that combines different elements. As a rule a deity is one that represents different cults, the merge of different spirits into a single object, e.g., Hesiod. Conflicting deities must be harmonized and brought in as a whole. The conflict of different cults and their techniques, the harmonizing of these lie behind the development of myth from a part of the

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2. Baldwin Spencer and Frank J. Gillen, *The northern tribes of central Australia* (New York: The Macmillan Company, 1904).

cult to an explanation of world, nature. The process of agriculture calls for the relating of the familiar spirit to the sun, moon and stars. Each cult calls for myths, [80|81] deities of different values under different situations. They are explanatory in each case. The point is this: As religion brings together the whole group of technique into a sensuous object, not a working image, so myths organize the life of the community in relation to nature and the image which was only a working image dealing with a part of the process takes on a larger significance when related to others. We get this in the community where some cults are not related to the group. Some individual exercises his own cult to the harm of others and is condemned by the community, e.g., Saul and the Witch of Endor.[3] This development of myth means the bringing together of different myth[s] and cults and harmonizing them, and *reinforcing* of them just because in this harmonizing they are related [to] a larger stretch of history, e.g., ancestor worship made up of different cults represents the history of the group and becomes of much deeper and more definite content, than before, e.g., cult in its primary form is a long step from its ancestor worship, which represents the relation between at least two generations. All that is involved in this ancestor worship is made use of to mediate man, to speak to a familiar spirit. The element of explanation has to do with the larger form in that it deals with the harmonizing of conflicting cults—who belongs to one is now taken over to another. Thus there is the aesthetic impulse to construct a whole which takes the place of the working image; and thus arises the object of worship.

3. Mead refers to the first book of Samuel 28:4–25.

Lecture 14

[The Three Stages of the Act and the Relationship between Intercourse and Thought]

We have endeavored to start with a more or less psychological statement of the act as it may be assumed to appear in the development in the primitive community [81|82] and having its analogue in the child. We tried to indicate the stage of this act, also the point where magic, cult and myth arise. Then we turned back to see the essentially social character of the intellectual process as seen in language. Justification for this order is seen in the steps of the act itself. We speak of reflective consciousness and assume reflective consciousness to depend on conflicts in acts. Three stages, *emotional, aesthetic* and *intellectual* follow chronologically in this order. To be sure, you cannot separate three stages in our consciousness but by a post mortem examination, i.e., by introspection, we can. Also in primitive man, by studying strata we can isolate them. e.g. The immediate result of a conflict which calls our attention to a new thing or phase is an emotional state; it may be fear, joy, sudden thought of loss of friends and thought of equal sorrow, etc. This immediate appear[ance] of emotion, as I said, turns upon a sudden turn of attention to something not before in attention. When we turn suddenly from one stream of consciousness to another, the stages of development here are parallel to those of race and individual.

The emotional attitude of fear is a good illustration. A person finds himself in a new environment; he instinctively protects himself from the new. In any situation where things are entirely unfamiliar one has the emotional attitude, e.g.,

strangers or a dark room. This is the first stage of the act. (2) Then one goes from one emotional attitude to the next step in the development which is a construction of the object. The attention is turned to the object to find out just what it is. This construct of the object is what we have called the aesthetic stage. (3) Then follows the intellectual, the dissecting, the analyzing. This intellectual weighing analysis does not follow for its own sake, [82|83] but for the sake of acting with reference to the object—e.g., in a field with a dangerous animal: 1) fear, flight, 2) take the situation in, 3) how one is to act if action is possible, e.g., get ready to shoot, flee, climb a tree; or if one decides the animal is not dangerous, the action is different. This intellectual analysis follows the emotional and aesthetic stages. (This is always the order except in pure instinctive or habitual action on the lower levels.) (We have three levels, the instinctive, impulsive and reflective.) We never have reflective consciousness without this emotional element, which gives value to the object. This order brings out the development with which we are familiar in religion, e.g., in the O.T. "the fear of the Lord is the beginning of wisdom,"[1] 1) the emotional and out of this is constructed the object. e.g. In one of the Psalms, there is a great thunderstorm which is very terrifying[2]—out of this built up the wonderful object, then the god of war, and the helpers intellectually constructed, analyzed the phase in which the observer relates himself and his experience to the object, cf. early religious art and literature.[3]

This order is seen continually in everyday life, a continuous series of emotional terms which cause us to turn to this and that object, and then after analysis build up our objects. The interest in a subject is in terms of feeling it. We cannot get the object without the emotional response which holds one to the object. Psychologists agree sufficiently that emotion is the beginning of the object and is that which serves to evaluate it. cf. Dewey, Angell, Wundt, James (too polemical).[4]

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1. Proverbs 1:7.
2. Psalm 29.
3. Baldwin Spencer and Frank J. Gillen, *The northern tribes of central Australia* (New York: The Macmillan Company, 1904).
4. Probably John Dewey, "The theory of emotion (I) Emotional attitudes," *Psychological Review* 1 (1894): 553–69; ———, "The theory of emotion (2) The significance of emotions," *Psychological Review* 2 (1895): 13–32. James Rowland Angell, *Psychology: an introductory study of the structure and function of human consciousness* (New York: Henry Holt and Company, 1908) (probably chapter 18: "The nature of emotion"). Wilhelm Wundt, "Die Sprache," in *Völkerpsychologie: Eine Untersuchung der Entwicklungsgesetze von Sprache, Mythus und Sitte,* vol. 1 (Leipzig: W. Engelmann, 1900); ———, "Mythus und Religion," in *Völkerpsychologie: Eine Untersuchung der Entwicklungsgesetze von Sprache, Mythus und Sitte,* vol. 2 (Leipzig: W. Engelmann, 1905–1909); ———, *Handbuch der medizinischen Physik* (Erlangen: Ferdinand Enke Publishers,1876). William James, *Principles of Psychology* (New York: Henry Holt and Company, 1890) (possibly second volume, chapter XXV, "The emotions").

Cult and myth are located in this development of consciousness. The process becomes inattentive, habitual. What raises this process to cult itself is the removal of the object out of the ordinary reach, [83|84] either in space or time. The construction of the object lost is essentially emotional in character. Whether the construction of an object, of a spirit, of a god, (as in Psalms) aiding in thunderstorms, etc., whatever the process may be out of which the object is constructed in the aesthetic phase, the intellectual attitude constructs an object for activity; perhaps worship, which is the carrying out of the emotion in the presence of the aesthetic object. Or it may be more practical, as the carrying out of the cult in all its details; only later a more critical attitude may tear to pieces the myth and now the emotions are reduced to a minimum. cf. Higher criticism. When the attention is to the object of the myth as such then the aesthetic is prominent.

The word phases (intellectual) which follow in some sense on the aesthetic we have said are social in character, i.e., dependent upon intercourse with other individuals of the same sort or group. The process of analysis of the object aesthetically presented does not take place as simply the dissecting of the object. There is not present just mind and object. The process of analysis is a process of thought and thought implies intercourse. The thought process is *dependent on intercourse.*

This is very important in education. All intercourse with children is in communication, all consciously directed intercourse of the race in education consists of intercourse; various religious ceremonies, a process of education. What we are insisting is that the intellectual processes are not already going on which we use for education. On the contrary, the intellectual has arisen from [the] parent and child situation. All society is organized around the parent and child. It is out of this situation, early education, that the process of thought, the vehicle itself arises. The social relationship comes before thought, thought [84|85] arises out of the consciousness of social relationship, of separation. This we indicate in language which we have seen arises out of an emotional cry which stimulates another form; that this cry is a gesture, which is the beginning of an act, which is an indication of the rest of the act which another form responds to. The articulate speech arises out of this and represents the beginning of an act. The process of speech then arises out of this response to the gesture of other forms. Also we indicated that it is in this reaction to gesture of other forms that we have the first indication of a consciousness of meaning. Intelligent action in animals does not necessarily imply any consciousness of meaning. The dog shrinks from the whip instinctively. As we pass another on the street, our consciousness of meaning is not interposed between the stimulus and the act. Your thoughts are elsewhere. But you may, after passing, recall and recognize a friend and speak to him. It is possible to bring back this consciousness and analyze it. A large part of our own activity is on the instinctive basis as a dog. It is possible only in a higher development to take

the act apart. The higher phase above the instinctive is the phase dependent upon the social relations. The consciousness of sound, visual image, do not* themselves have meaning though they may call out reaction.

But if the reaction has meaning it [is] the reaction of speech in a large sense, the conveying of an idea, intercourse, conversation. In our own thinking where we do not go beyond ourselves, as in soliloquy, we find this always involves the "I" and "Me" relationship, the answering and response. The consciousness of meaning is identified with the process of the conveying of an idea, and gesture in its large sense has meaning because it conveys an idea. Now the idea has meaning because it has arisen out of social intercourse. [85|86]

It is the cry, the gesture, which has given us this level of intellectual life on which the idea appears. The social intercourse is that out of which the symbol, the meaning of intercourse has arisen, and that to which the symbol refers. Ordinarily the term gesture carries us back to the actor and the social situation out of which meaning arises. The lecture today has been gathering together the thread of former lectures relating the emotional[,] intellectual and social to the act.

Lecture 15

[Gesture, Conversation, and Consciousness of Meaning]

We were speaking of the dependence of language and social intercourse especially in relation to consciousness of meaning. Language process, field of gesture—that representing the beginning of the act and this becoming the indication of meaning to the observer or other. On the other side we have the consciousness of attitude on the part of one about to do something.

It is the so-called consciousness of attitude and its relationship to an on-coming act. That is the concept, this is the consciousness of meaning. (The actor has the concept, this is the consciousness of meaning that the observer has). The illustration we gave was in the field of language, especially in the preposition and conjunction, represents an attitude which stands for a certain sort of attitude carrying on an idea—as reservation "thought," opposition, "but." cf. James calls it consciousness of relation, cf. Stout as Schema.[1] These are types of recognition, and our consciousness if analytical, a consciousness ready to act in a certain way. Consciousness of meaning while it arises out of one's own act or readiness to act refers to someone else, i.e., it appears as a response to the conduct of another. This

1. William James, "The stream of thought," *Principles of Psychology,* vol. 1 (New York: Henry Holt and Company, 1890); probably George Frederick Stout (1860–1944), *Manual of Psychology,* 2 vols. (s.l.: University Tutorial Press, 1898–99).

is very evident in speech—as when one is [86|87] proceeding, "but"—this is a definite answer to a certain situation, and this situation gives value to the idea. The idea also in our own thinking is a response to an image which is there. In abstract thought we have gone so far that it is hard to get back into the original form, but analyzing, we find the situation of *conversation,* so a certain situation calls out an attitude, and this situation calls out conversation. To adjust one's self to a situation is a process of conversation. The meaning of an attitude which we ourselves take is derived from its relationship to that to which it is a reply. You will find that your direct immediate consciousness in a concept can be reduced to a feeling of readiness to act in a certain situation or a certain series of situations which has unitary character. e.g. Ask someone what he would have done, "Well, present the situation," you say, then you can react.[2] Our control of our own conduct is only at the beginning of the act, otherwise it goes off of itself, e.g. reading, writing, etc. a series of automatic actions over which we have little control—and by and by it is almost impossible to get control over them. It is very difficult to get the mind to follow the hand in drawing. Our control over our conduct in the reflective sort is inde*finite, indirect, not immediate, and falls perhaps entirely in the field of gesture. So when we take the situation apart, it is in the medium of social intercourse that thought and reflection arise. The "I" and "Me" are always there; there are ideas and then there are responses to these ideas, and the reference of the word, symbol, to the ideas which it answers. One's thinking is the answering to, responding to the ideas present there, and the reference [87|88] of this inner word to the ideas coming up. Again, the direct consciousness of this concept is nothing but a feeling of readiness to act. But your statement of knowledge on a certain subject is just like your ability to jump. The situation is there, and you have a feeling of readiness with reference to it. Our thinking is in the conversation. e.g. A child and a problem, what is the solving? Simply taking a situation and answer[ing] this way and that to the situation. The field of reflection which is above the habitual belongs to the social world of question and response, and whatever we think out appears in that way. In this social field which is the field of reflective thought education occupies a very important part. Genetically it represents the relation of parent and child, a relation which is not confined to the immediate progenitors, but the attitude which all have for little children and the attitude which all children have toward adults. Nothing brings out such instructive response as a little child. This is a very important relation, this of parent and child. There is

2. After this sentence the following sentence was deleted by hand: "It is that feeling of readiness to act in a situation in which responds is also thrown into the field of language, of gesture."

another important relation. Much of our aesthetic response is miniature in type, small animals, Shetland ponies, kittens, etc.; we have a special sentiment, e.g., the interest of women in a little dog, small animals of all sorts. This interest seems to go back to the essential relation of parent to child. Other relations are infused into this parental relation. Sex relations are infused into it. Parental relation is great in extent, and I indicate it because it [has] such importance in gesture. The extent of parental relation takes in all children and the feeling of tenderness seems to belong to the parental relation. The emotional cry is one which in its earliest form is to be found especially in this relation to the child, and the attitudes are the same of the child and the adult. The intonations [88|89] are likely the same as in this relation. The social relation in which language has grown up, in which is cooperation and reply, we have the parental relation as the predominant one. Certainly the battle cry is not that out of which language largely arose. We have other articulations. Sounds to represent rhythm of dance and rhythm of work. In both cases we have those sounds which bring about co-operation. If we look for the co-operation phases which serve to develop speech as such out of cry, we find this relation of parent and child and the sounds bringing out cooperation. In case of this cooperation in dance and work it is the emphasis which is the important thing rather than the tonal. Also when we trace back primitive man the relation of the sexes does not depend upon the tonal note, but through the relation of the adult form to the old form the social content seems to have arisen. Whatever the beginnings were the relation of parent and child has had a great deal of influence on intercourse, etc. It is out of this relationship that speech, etc. appeared. The care for young especially when infancy is prolonged makes symbols which have meaning necessary. Out of this, meaning and symbols are given to adults. The earliest appearance of language comes then where the child has prolonged infancy, and makes necessary the giving of information by the parents and the seeking of it by the child. Education arose in this situation. Even our own thought, abstract thinking, is still in this social situation. This from the earliest situation enlarged to the group. Education may and in its beginning certainly identifies with the process of assisting and conveying ideas through the medium of speech and this the most primitive situation out of which speech developed. This is the immediate situation. The cult itself is the giving of reality [89|90] through technique to an object which is distant. The image of the distant object is filled out.[3] And the relationship is worked out in the form of language, and through cult the movements of the body itself pass over into a ritual. The myth is the filling out of

3. After this sentence the following sentence was deleted by hand: "The myth is the beginning of the cult."

the gap between the technique and the object. It is a story. This in the phase to be taken up next, the myth as a story which answers to the story of children, the play of children of imagination, and the imagination of primitive people. The first step is immediate, the relationship of parent and child and with social response. Now we come to the next step in the process, the aesthetic stage and here we have storytelling.

Lecture 16

[The Function of the Aesthetic Image in Thought]

We were speaking of the myth and the child's interest in telling stories as a psychological parallel phenomena. The myth, as we have seen, belongs to the reflective and conscious process dealing with a technique which has a different problem, giving rise to cult. We have seen that cult involves a sensuous object which gives a foundation for belief in cult itself. Magic depends upon the bringing up of a clear, sensuous experience produced by imagination and memory. It depends on myth to give belief in cult itself to the community. It requires conscious effort to construct an object such as this, e.g., using a shred of garment, making a wax image; the individual sits in the twilight and watches for the apparition, i.e., he goes consciously about constructing the image. In all [this] magic[,] situations are built up sensuously so as to set free the technique. Notice here that the sensuous object is fuller than the working image where full details are not needed to set free the reaction. But if the [90|91] object is distant an image is needed to assemble all that can be gathered as over against the contrary situation, as when we endeavor to recall the face of a friend and that of a person seen only a moment; in the latter case we recall only enough for purposes of recognition as color of hair and eyes. When you are trying to recall a person, these details are needed to remember them. It is an endeavor to build up a complete sensuous image to get it for acceptance as your friend. This [is] aesthetic.

Function of the Aesthetic or Complete Image

One function, we said, expresses itself in emotion, sentiment, making possible the constructing of an object of worship. On the other side the very process of constructing the image gives it validity and under certain conditions serves to demand its acceptance. It is a phase of aesthetic as seen in art. The artistic construction of a character as a whole, as in a drama and the modern novel—the details all being gathered together. Such a building up gives us a sense of reality; not in any sense historical, it is the truth of fiction, cf. Jonah.[1] The reality of it depends upon the completeness of the structure itself independent of date. The completeness of the structure carries with it a feeling of reality. Such a feeling of reality is just as important as an affidavit where dates are fixed. It is such a reality fairies have for children. It depends upon completeness of imagery.

The other phase of this aesthetic phase of imagery is its social character. We have seen how social all our reflective process is—that all our thinking is social in conversation. We want to emphasize this difference, which has great importance to education, between ideas due to association and assimilation, and our response to the ideas, the apperceptive process—in the jargon of Wundt, the apperceptive process [91|92] as distinct from the associative process.[2] Voluntary attention represents the response of the mind to ideas which are influenced by association. The apperceptive process is that which gives the social side. What one's attitude will be to an object, e.g., landscape. What one's response will be is not due to natural law, but one assumes a certain attitude toward it. This attitude is the response of the self to the ideas. But these ideas are that to which the self responds.

Our education has depended so much on the association of ideas and has not taken into account the response to the ideas, apperception. Old education of association of ideas took only the natural law side—discipline, the curriculum neglected the attitude of the child. But the whole of the technique of the process, as in initiation, does not turn on the material provided by elders, but falls around the response of the child to this material, e.g., the old men in primitive initiation so arranged that the youth's response to the situation (material) will be of a certain sort.

But the education by drill, machine accuracy, pays almost no attention to response of the individual, but it gets automatic habits as in reading,

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1. The minor prophets: The book of Jonah

2. Wilhelm Wundt, "Die Sprache," in *Völkerpsychologie: Eine Untersuchung der Entwicklungsgesetze von Sprache, Mythus und Sitte,* vol. 1 (Leipzig: W. Engelmann, 1900); ———, "Mythus und religion," in *Völkerpsychologie: Eine Untersuchung der Entwicklungsgesetze von Sprache, Mythus und Sitte,* vol. 2 (Leipzig: W. Engelmann, 1905–1909).

multiplication table, etc. The whole scheme was a setting up of a system of ideas with little or no reference to the children's response. The children must conform to a certain type. The education deals with the material rather than with the response, materials that can be worked out externally, through association by contiguity and similarity. The response of the individual is not only unnoticed but is wiped out. Children must be a type, but in handling masses the child must be forced into a type. To break away from that is sin. The endeavor is to put the child in a situation so the system will be intact. Contrast this with initiation [92|93] where we have the opposite situation. The contrast here is between an emphasis on associating certain *materials,* and apperception—attention, interest, emotion—the *response.*

This building up of the aesthetic image belongs to the conscious process, voluntary attention of the self. It is an action as contrasted with passive apperception. This voluntary attention consists in giving notice to the tendencies, to the act which cannot get full expression, e.g., James, chapter on Memory[3]—you can, in recalling a name, feel the image of a whole which you cannot fill in. What you have is a series of tendencies wanting expression but which cannot get it without a stimulus, the desired name. e.g. One ready to give the account, tell the story but cannot because the name cannot be recalled. If we cannot get the name we can give all kinds of descriptions, many unessentials which would be unnecessary had you the name. Solving this difficulty is the process of constructing the object. The more details, the more reality you give to it. The unessential details are of tremendous value in giving reality to the object. This process of constructing is voluntary, a creative building up, is a part of self. The process is the construction of an object which will mediate certain activities. cf. Process of cult, trying to injure the enemy. The enemy at a distan[ce], the object therefore must be built up and so construct the image as to get the man before him. This sets free the activities either for hatred or assistance. Just as above, the man's name was necessary, here the object is necessary before the reaction can take place. We have it in our religious experience, one wrestles until he feels he is answered. He is constructing an object to set free his tendencies and when this is done he feels that he can go on and act. [93|94]

The process, then, is 1) the constructing of the object, and 2) it sets free the activity of the individual, 3) this activity carries with [it] the attitude of belief. This process of building up the object is a social process. The material to which the individual responds has the value or function of other selves, and the response represents one's own self, e.g., prayer. The whole world of man is a social world. Primitive man has social relations to nature, animism. If we could analyze the multiplication table, we could find its social side. (e.g. The

3. William James, "Memory," chap XVI in *Principles of Psychology,* vol. 1 (New York: Henry Holt and Company, 1890).

child and the multiplication table, Brown. *Rab and his friends,*[4] girl Margaret Fleming, died at eight. She referred to the multiplication table as devilish, said that seven times seven was more than human nature could stand, e.g. the multiplication was personal in character, and the reaction therefore was social. cf. Meade's experiment with 9s and 5s.[5]) The instinctive attitude of the primitive man is social toward his world. Only after long abstraction have we gotten away from the social side of it. The construction of the mind of primitive men then is a social construction, of personalities. The aim of that construction is to set free certain attitudes that are seeking expression. We have discussed the phase of evaluation; we now come to the construction of storytelling and myth.

The function of myth is that of imagination, the reconstruction of an object which will set the subjective activities free, give it expression. The mythmaking may become an activity essentially artistic, freeing itself from the cult. i.e. The mere constructing [of] the object itself may occupy the artist's mind, especially the priest's. The value of it for setting free the cult, etc. may for the time being pass away, lapse. Here myth passes from cult to poetry, in the storytelling of the child. The original [94|95] function of the myth arising out of the problem situation is to mediate the technique of the cult. The myth may develop for its own sake into poetry and storytelling, an artistic process.

The psychological reason for storytelling, artistic process of myth is one phase of the problematic psychology of aesthetics. But note, one phase. All agree that this building up of the aesthetic object brings together material which had never been related before. There is the element of the novel, that which attracts attention, as we say, because of its novelty. The child wants the story told over and over and finds new connection each time, that which every time strikes the imagination. The construction of this object involves bringing in elements which would have been ignored in a situation calling for a working object. It brings in a great deal of material which otherwise would have been overlooked. This arranging side of aesthetic construction is often overlooked. The artistic object [is] an arranging object. The effect of the work of art is to bring together the whole of the experience, relates the ordinary side of life with the ideal side of life. (Therefore the study of the Bible for teachers is far different from preachers. Critical, historical study is not the homiletic which should be artistic.) The artist can use material which the scientist cannot. The

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4. John Brown, *Rab and his friends* (Philadelphia: Henry Altemus Company, [1859] 1909).

5. It is unclear whether this refers to George Herbert Mead or to a Professor Meade working in the field of mathematics education. A Professor Meade is mentioned in a discussion on mathematics education in an article by Frank A. Manny, "An English experiment in education," *The School Review* 15, no. 9 (1907): 684–9.

scientist abstracts something and analyzes it while the artist arranges it and relates it to the ideal, i.e., construction as against analysis.

Again, the artist gathers together materials from different fields, e.g., in building up a character which is gathered up[,] the personality, the character of different localities[,] and makes it real, so it has meaning to us. cf. Drama. This construction of aesthetic images is then an [95|96] actual organization of experiences—from different fields. This is what gives the great spiritual and educational value to art. The artist who is able to construct a figure representative of community ideals, has organized a whole community. Such a sensuous image is then an organization. Just so storytelling is a building up of experiences and organizing them, bringing out relations unorganized before. The preadolescent child lives piecemeal for the moment; there is then the need in the child's mind of relating these experiences. These experiences need to be retold into a series of organizing inclusive union, in contrast to giving of rules or abstract principles to a little child. These have no meaning for him. So early geography, science was always a story for him. The organizing character of the aesthetic experience has been largely overlooked. Its immediate occasion is found in the cult, seeking to build up its object.

Lecture 17

[Cult and Myth in Greek Society]

Speaking of aesthetic images and the psychological situation for the appearance of the aesthetic image. The situation in which there is a demand for the object to carry a sense of reality which the experience lacks. The demand for this comes out mainly in the artistic impulse, the movement toward the filling out in experience giving content to it. e.g. Primitive drawing attempts to construct the object in which the community is most particularly interested. Receives its most ready expression in language. The attempt at filling out the object we have seen in myth. The demand to fill out an object lies behind all that. The bringing together of different materials from different sides of experience leads to an organization of the material itself. The educative value of artistic impulse is seen here. The control [96|97] gained through such a procedure is the same as the control of a generalization. Content has a concrete character and all images are absorbed in the object. So the different details are not seen. But the vital relationship is recognized in what we call the meaning of the object as such. The aesthetic movement then, has the very definite character of organizing the experiences of the group from which it arises. It runs out naturally from technique to cult; cult to myth; myth to cosmology; from cosmology into these other directions out of which science has arisen. The most important example is in the Greek where myth can be traced. We have first all the cult and myth of an agricultural community, processes of reproduction and fertility all represented in the myth, and these come back to myth which has its object in the distance. This gets its figures from Greek mythology closely identified with the community. But the situation is close

to cult as such, e.g., the experience of Zeus—heat of summer, myth of birds of Zeus, etc. Here we have a close connection between cult and myth itself. But when people move out to sea, to colonies, and when different people with different cults come together, there was necessary an organizing of these. (Hesiod)[1] This organizing character of the whole and the passing of it not long after Hesiod into philosophy, with some interest in the heavens and mythology. But the presentation of it is different. It is still presented sensuously, but the process of analysis is now also present. The passage of the mythology of Hesiod over into philosophy is characteristic of the movement, a movement which finds a parallel in Indians and Chinese. In this case we have a mythology which stands on its own feet. Myths in a community largely formed by the cult consist of processes of which the cult consisted. But when we reach the time of Hesiod, the interest in the cult [97|98] itself tends to become the dominant interest. The interest of most import to us is not philosophy of myth, but a development of poetry. In this case we have also the evident necessity for the constitution of the object which will give meaning to the cult. The song, the dance, etc.—such a cult as is found in Orpheus or Bacchus, these are first confined to cult as such. Out of Bacchus, e.g., arose art. Out of cult which tried to construe cult sensually arose painting, etc. Out of the story of cult arose song and poetry as in Hesiod. All these cults were preparatory for agriculture, war, etc. All have the psychological situation of necessity for the construction of an object, and then this is developed beyond the cult and its interest. Find this in Homer's *Iliad* and *Odyssey.* Find [this in] the isolation of songs. Find [this in] these poems put together. It is assumed that this arose out of the singing of the bard. If we go back far enough, we find that they had reference to a war dance, to a cult. The relationship between plastic art is that the epic poem lasts longer. i.e. We have very late the presentation of poems to influence the gods. i.e. The giving of the object of worship as directly related to the cult. In the palace of Athena [there] is a very interesting collection. We see the development of the aesthetic, artistic content. One sees that at first, it must have had a definite reference to the cult itself. They have the same relationship as some of the catholic images and cults. Images have little content except as they are a case for the aesthetic object. But when it reaches a point where it does not call up any reference to a cult, it is a work of art. The same thing is worked out in Homer, in drama and art. The cult goes back to the moral situation in Greek life as in Aesculapius, etc. It is this development of this phase of cult, important for us, the getting of the stimulus [sic] which are [98|99] of interest as an object for the cult, and see what place this has in building the aesthetic image. The point where we are now is to separate it from the cult, and that out of which it arises. It tends now to

1. Zeus is the main characer in Hesiod's *Theogony,* about 700 B.C.

exist for its own sake, and is not now a working image, is complete in itself. This process is one out of which there has come not only the development of independent art, but an independent science. But this development has to do with more or less conscious control over the organization of material. We have art: the blacks of Australia have no suggestion of art as such. The medicine man uses his technique for certain ends, but he has no conscious control over his materials. We get this control in decorative art which goes back very early. In all this there must be conscious control over the material and the putting it together into a whole. Now both these are present in the children of the storytelling age: 1) the construction of images necessary for their own activity, 2) the setting free of the play activity. We know how slight the object has to be, e.g., broken dishes, a stick serving for a doll. There is a psychological tendency in children to play, there must be an object to set that tendency free. But there is no tendency to aesthetic perfection, a work of art on a doll is wasted, a rag doll is just as good. China dishes are no better than broken ones. The aesthetic tendency is not present in this early period. We find this also in the speech of children when playing doctor, storekeeper, parson, etc., a bare suggestion is all that is needed to set the play going; the amount of representation which is necessary is slight. What is important, say in kindergarten, is what will set free this activity. What does this is all that is needed. What is added is a burden, drawing it out distracts the interest of the child. And in the storytelling of children, where the story [99|100] is told for its own sake, there is also the play of activity, the image. The child wants an object which will set free these activities. The demands are very slight, it is remarkable how little satisfies the child. There is no large content in stories for this time, e.g., Arabella and Araminta.[2] The plot consists in Araminta doing the same as Arabella, and this delights the child. All that is necessary in the way of content in the image is that it will keep the mind running. The step is only a little beyond the child learning to talk, and all that is needed is something to free these organs. We shall come to this again in consideration of the material to set free this activity.

I tried to insist in the start that the motor process is a seeking of expression so that the stimulus does not force the reaction but is a stimulus for the reaction. These occasions are then organized. We say the child is overflowing, seeking to act. The demand for stimulus is great. The demand is in the motor process and only so much is wanted as to set it free. Thus in the working image, only so much is needed as to set free the reaction. The stimulus is only a phase of the whole object. So only enough is constructed as will serve this. But we come to a later stage in which the organization of this material

2. Gertrude Smith, *The Arabella and Araminta stories* (Boston: Copeland and Day, 1895).

becomes a task in itself, and the relationship of the cult of the object is lost and the cult is independent. e.g. A child with artistic temperament. How soon he passes from the rude drawing of a horse or cow over to the process of control of drawing and giving value to the image. This is seen also in the story which comes to have meaning for itself which does not have its interest in the play, but where the object has an interest in itself. [100|101]

Lecture 18

[Myth, Community, and Education]

We called attention to the importance of the development of social intercourse, language depending on this, 1) to the parent and child relation (this cannot be overestimated), 2) to the part the aesthetic image plays in the development of the myth and that which grows out of the myth, i.e., that this image or object is a fuller image than the working image, that it is more than the sensuous experience which sets free the reaction. It represents a whole which is not an immediate stimulus to reaction. One of the grounds we have for producing this in the history of the cult was the endeavor to present the distant object so that it would carry with it reality. The presentation of the distant object was made a basis of reality in the cult. We have seen further that such a situation of distant objects in the cult, e.g., presents certain problems in the community life, e.g., in the agricultural, the problem is the bringing about an uninteresting task for what it will involve later. The hunting life is interesting, but in the agricultural, the product is so far away, the stimulus is so far away, that a social stimulation arises in the community. Of course the task of drudgery has some interest [or] else labor would be impossible, e.g., the tramp. The process is distinguished from the hunt and is so dull and monotonous that it needs the social stimulation of the community. These situations were the problematic difficulties of the communities, and out of this grew the cult. Now these cult situations, difficulties of this sort, are those out of which the aesthetic images have arisen. Figures of the deities, etc. have arisen out of such problems as this and here is the psychological ground for the construction of the whole. If the working [101|102] image is made up of many little elements, the construction

of these into a whole is the construction of the aesthetic image, the taking into the aesthetic object a whole series of values of different relations. So a stone for pounding, for throwing, etc. All the values of the object represent the different relations. The image of the stone as a whole is a combination of all these. The situation in which we take in an object as such a whole is the situation of the problematic, not acting, but ready to act, each tendency balanced by other tendencies. This is the time of building up the sensuous object. That period or situation in which the community builds up its aesthetic object, worship, etc., is analogous to the sensuous whole in perception in stress and strain. The situation is essentially a balanced situation where one tendency balances another. These situations of building up the image have not only the value as above, but also an emotional value. We have laid stress on them because they have such value for education. They gather about the process of reproduction, sex, society. What arises here in the *emotional content* is the working over of these materials and the presenting of them so that they can be carried from one community to another, i.e., the traditional process (the handing down process). All this has a psychological basis. But apart from this there is a form given to it so it will pass readily from one generation to another. The process of conversation is itself essential to the building up of the whole. There must be an audience and the audience with its response makes the basis for the material itself. There is besides this relationship of those who listen and answer, an actual conversation of people. The storytelling process is not only a relation of one's self, but a storytelling of one's own experience [102|103] answered by the experience of another. Such a process builds up the myth. The sensuous contents which are built up in the problematic situation of the community are the materials for education. Storytelling is essential, then, to the building up of the material. And storytelling is in the form of giving information. We have seen how far back the relationship of parent and child goes (is instinctive) and is found in all persons. This relationship of parent and child is fundamental in intercourse. It is so fundamental because tones, expressions, etc. have need for care. The situation involving emotion itself is a process of adjustment to which the child is not yet equal. Our relation to the child is identical to this, intellectually and spiritually; we explain, arrange, adjust the world to the child. This process of adjusting the world to the child is a fundamental relation all through life. The storytelling process is one which is present among adults and passes over into the community life. The process of construction of myth, etc. out of which science, etc. has grown is just the form to which the child responds. Storytelling (cf. primitive people) is the material in which the child himself has interest. Not that it is inherently interesting but it accounts for the world, and that in the immediate social relations. It personifies nature, gives a spirit to every star, etc. This adjustment of nature to the mind of the child is the adjustment of the primitive man, for the child who is scared by nature identifies the storm with beings. It may not take away the terror, yet the putting of it into social form gives

comprehensibility, meaning, and the child can stand this more than the terror of the impersonal. The uncanniness of the dark disturbs, but the putting of the social side to it gives meaning which may not allay fear but which [103|104] does render it understandable. This process is the socializing of nature. It is the way of the primitive community. It is explained, the giving of social content to the problem. It is here that the poem, etc. of primitive man has arisen.

Coming again to myth. The myth grows up to meet the needs of a community. The same myth may come in different communities. It has been advocated that myths, where similar [in] character, had a common origin. Now we think that similar situations give rise to identical stories and serve to explain the phenomena of nature, of the respective situations, i.e., make the person at home in the situation. *We* feel at home among forces which have no social situation. But the primitive situation was that of human relations, for nature was not indifferent to man. The "nature" of science is indifferent to man. *We* are at home in it because we can manipulate it, operate it, and in this way socialize it. But the primitive man, as the child now, projects his social self into nature. The process in primitive life and in science is essentially the same, i.e., the end is to get social control (while the method is different). Storytelling, as in the parent-child relationship, is the same situation as myth. And this is the situation in which we must recognize the demand of the child. There must be an interchange of story. First the story and second an answer by the child. Or the question of the child and answer of adult. It is out of this interchange, question and answer process, that myth has arisen. cf. Primitive drama and the character of thought itself.

The situation of education is then that of the parent to the child. And it is out of this process that myth and its outgrowths have arisen. It is not then only that myth takes material and passes it on to other generations, but the materi[104|105]al itself has arisen out of an educative process, i.e., the adult, or those who know, make the others at home in the new situation. A plague, death, etc. happens, things are incomprehensible, and the priest shows that a certain god is expressing his anger. Thus the thing becomes comprehensible and now something can be done, action can go on. The situation is dealt with by extending the known into the unknown. This is exactly what we do with the child, pushing him farther into the unknown and supporting him by making him at home there. The storytelling process of primitive man is the natural thing here. This process is built up out of the very situation and the process itself constructs its material. (See Davidson's *Aristotle,* for survey of Greek life and education).[1]

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1. Thomas Davidson, *Aristotle and ancient educational ideas* (London: William Heinemann, [1892] 1900).

Lecture 19

[Greek Science and Education]

In Greek education we have a certain portion that remains, the same character, principle, as in the education of primitive children, which we have sketched. A large part of the education of the boy is the acquiring of technique as in the primitive imitation and plays, or else it was the process of inducing the boy into the principles of the country, in a manner[1] like that of education. These two principles we have among primitive people; first, play or imitation, acquiring of technique by placing self in the place of adult; second the acquiring of tradition of the community as magic, myth, etc. which has the value of socializing the individual and making himself at home in it. In myth more or less definite instruction is necessary. The material must be learned; i.e., it cannot be gained through the process of play itself. It must be a learning of materials, conscious equipment, something which could not be taken in the daily life pro[105|106]cess. So we find the primitive boy being put through a process of education. All the psychological conditions in which it could be used made it necessary to keep the material for specific occasions, solemn, mysterious, etc. To get the material then, it must be learned, could not be picked up. Now this material, that which was ceremonial in its character, that which was occasioned in the life of the country, that which was brought out and made use of for its aesthetic and emotional value, this had to be especially taught. As seen even among the Blacks of Australia, the Buddhas of India, we have two types of education definitely worked out, first, playing the part of an adult, second, imitation*. Have also seen the process of education was the process of magic itself, and education was just this process of the socializing

1. "Matter" in original typescript.

of the individual, as in myth and language. It is the situation of parent and child, and all that grew out of this myth, etc. is yet of the character of the socializing of nature. And intelligence as we know it is social.

These two phases, 1) playing part of, 2) induction as imitation found in later days. Boy in school acquires through books his material. Not exactly initiation, but the material was of the same general character. Material which is now developed into higher forms of art, poetry and history had all been bound up together. Of course their Greek education was defective. What comes down to us shows no arithmetic, this is gotten in adult process, in apprenticeship. So a large part of Greek education was identical with that of the primitive child. We have most of modern education suggested, if not worked out in this later stage of Pericles. That training which led up to citizenship was the same character as the primitive people. Much developed above the Blacks of Australia, but of the same general character. [106|107] Athletics, etc. was a playing just as our athletic playing and was essentially initiative.

We want to separate this from that of the period of Greek science. The education of pure playing, as in Australia an initiation process, is there, but the higher training grows out of these traditions in Greek science. This we want to speak of today. Just as in imitation the very socializing processes out of which education has to grow are identical with the process of education itself. We cannot distinguish between the material and the process of education itself. In the acquiring of a language, this process itself is the thing which is to be learned. The processes of learning and teaching and the material is the same for both. And one who takes the attitude of another, he is interpreting what the other is doing: This process itself of interpreting what the other is doing, is itself learning. What brings this out is the social character of the materials.

The development out of this traditional material which we have seen mediates the cult to the distant object is a process of socializing nature, making man at home in his situation. The technical weapons, implements represent the immediate control, makes one at home in a situation. Beyond that there lies above, beyond, below, beyond vision and travel, there lies a darker world which mediates this present situation. Death, hunting, etc. are controlled but these lie beyond and are not fully controlled, are constantly invading that which is controlled and the myth mediates the cult. It has to do with that region beyond control and it affects the life of the controlled. It goes back to the phenomena of life and death. Myth depends upon agricultural conditions, nature, coming and going of clouds, etc. Around these [107|108] all myths gather. Then there are a whole series which enter into the conception of soul as such, the phenomena of life and death, the soul of the underworld. Not the subconscious soul of later thought. It is a separate characteristic which loves and hates and is found after death no matter whose it was. The point is that all this lies beyond the region of control. There is always connected with each person something which is outside the community control. And the

community reaches out to get control of this region. These cults which reach out in the underworld, etc. attempt to do what the techniques of the world do, only the object of the techniques is beyond their reach.

Now if we turn to the beginnings of Greek science, we find it gathering around the meteorological phenomena. (Read *Psyche* Rhode).[2] It is interesting to note that control that has to do with the soul does not come under observation, its material is not dealt with even up to Aristotle even in theory, as in nature.

There are two fields then, nature which lies beyond the immediate control, and second, the region of the personal death as against life, sleeping as against waking, this also requires control.

We find development in this period, say from Thales on, in which physical science was developed, we find development of myth in which this side of life is sought to be controlled. Contrasted to Christian science, Temple of Medicine in which suggestion of dreams were applied to the patient, and out of this scientific medicine develops. Then there was myth which attempts to carry one over into the beyond as by getting the feeling of identification with god. cf. Bacchus. Wild orgies (emotional) in order to get sense of identification with the supernormal. There [108|109] we get a development of myth as identification. But this does not become theoretical till the time of Plato.

There are two fields which we want to keep in mind as important to education, 1) that part of education which has to do with deliberate requirement, therefore deliberate instruction. [2)] The other has to do with cult which has to do with great occasions, is* ceremonial.

We come back now to the Greeks in the beginnings of science. The beginnings of science and philosophy are together. Thales first figures in this period. It is noticeable that we place this beginning with a historic individual although myth cannot be traced to any one historic individual—much farther yet. We have a historic individual which represents in some sense the beginnings of science. There is a conscious attempt to deal with the material. An attempt to deal with material which must be deliberately learned. The other material must be gained in the process of play or ceremony. But where the elements of philosophy and science appear, we have the materials for definite instruction. This material is connected with a definite individual; Thales was of a Greek colony six centuries before Christ. Had been brought into contact with two great centers of civilization, that of the Mesopotamian and Nile valley. These two civilizations went to antiquity and their controls were of the technique and cult type. There was no science as such, but the materials were in the cult as such. e.g. Babylonian astronomy was all inside of the cult, there had been

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2. Erwin Rhode, *Psyche: Seelencult und unsterblichkeitsglaube bei den Griechen* (Leipzig und Tübingen: Freiburg i.B., [1890] 1898).

the habit of regarding all incidents, but this material was not an astronomical fact but a cult fact. It had to do with guesses, not science. So when we turn to the astronomy of Egypt, it grew out of a technique. All this grew up, not as we term science, but was definite[109|110]ly formed by technique. Great errors were made in measurement of land in Egypt, e.g., but all this was inside the cult. The point is, these had not yet developed into science. The material was there ready to develop, but the science of it was not yet there. Babylonia, e.g., found periods in which the eclipses would take place, but where or when it would appear, was a guess.

Lecture 20

[The Social Origin of Greek Science]

The general character of the development of myth in early Greek philosophy is that of a scientific development in a sense that the different phenomena of nature [were] brought back to a single source, and all natural objects were explained with reference to the simple [cause[1]], e.g., Thales as to water, air, etc. taking first one phase, now another as the original one. Thus the meteorological was very important both to agriculture and navigation—water turned to air, etc. In [the] forming of delta water turned to solid. Water turns to solid then to gas and back again. Thus they reduced complex processes to a simple one with which they felt familiar—water.

Close connection of this process with the mythological is seen in the fact that the philosophers regarded this material as divine. Cf. this material with that of Hesiod who organized Greek mythology as a whole trying to make a single organization. Cf. this to Thales.

The bringing together of myths—Hesiod is only a representative of his times and this prepares the way for the scientific statement of Thales who sets forth the function of the different gods, etc., history of the world as far as he could. These scientists simply slipped off the personal side of mythology and retained the Meteorological. So the connection of this science and primitive method is very close, the fundamental difference being the dropping [110|111] of personality. This attempt of Hesiod, as was said, depends on the attempt to bring together these myths and the organization of them. We have noted

1. "Course" in original typescript.

that the earlier Greeks divided, i.e., separated, later they came together and the Greeks began to feel their national unity, especially in war, etc.; consequently their cults had to be harmonized. It was not simply harmonizing but also [making] evident the functions of the myth itself. The cults which were harmonized, agriculture, war, etc., especially in the geological determination involved a definition of the localities from which they came (as a map which could be drawn), a relation to the rest of the world.

There grew up at the same time among the Greek philosophers a history of a geological character, e.g., Thales. There followed from the very bringing together of these myths a geological determination, i.e., the geography of the several myths had to be harmonized. Then other stories were interwoven along with these. e.g. The Thracians had special stories in their mythology. All this from different locations was interwoven with the situation of the times and this was fitted into the commercial development of the times. The enlarging horizon of the Greeks is found in the Hesiod statement. The development of Hesiod goes beyond the original function of the myth itself which had to do with technique alone. It now seeks to arrange the Greek sentiment and around it the people gathered.

We get for the first time in the mythology of the Greeks a gathering together of all the materials and an evolution of them, out of which physical science and philosophy would spring. It is important to notice that this material has reference to single cults first of all. It is only when it goes beyond this organized myth that we get its historical character, e.g., the Hebrews have myths of Canaan, organized [111|112] into their own. Again in Greece, the mediating; and bringing together of myths involves that intellectual conception of myth. Now they were looked upon as a story, an account of the life of the people. The myth is taken away from the particular incidents out of which they grew. It (i.e., the myth came to be) was therefore treated as material apart from the cult, and this organizing of mythology by Hesiod and others was on the road to Science, philosophy, etc.

We must remember in our books of mythology that we do not get mythology in its original form. The original form was in connection with cult. Now the myth is for its own sake.

This organization of myth has served to organize the Greeks['] life, in religion, etc. The Greeks never had any close organization and through their religion and arts a national feeling was developed. Games, etc., and artistic characters of myths were expressions of religious life, and these developed national feeling.

Out of this which goes beyond the cult grows that out of which history, etc. arises. When many myths of different parts, which reflect the slow movements of people or particular events, are organized, naturally a geography arises. This organization of the material *itself* gives it a different character from what it had in the cult, e.g., in the O.T., how far can you accept the history

and geography of the O.T.? A large part of it had originally no geographical import. Only the getting together of it constructed a geography. Putting together of material itself constructs a geography.

The smallness of and therefore the great diversity of sections of Greece and its landscape aid much in building Greek mythology. The putting of it together, it being so diversified, gives great construction of geography, etc. [112|113]

In Egypt, etc., where the land is level and not so diversified, there is not such a chance for separation from cult, for cults have practically the same background. Where the background is different, the organization makes the construction of a new geography imperative.

The second motive, the commercial, carried the Greeks far away beyond their old horizon. The Greeks took possession of the eastern Mediterranean by taking it away from the inhabitants: The Greeks were stronger. Phoenicians had but two towns, Tyre and Sidon. Greek industry pushed them out. The Greeks followed up the wealth of the Phoenicians, who were the go-betweens to Europe, Mesopotamia, etc. Tin was a great commodity in France, Spain, etc. The Greeks pushed back to the Source of this Commerce. Finally the Phoenicians joined with the Carthaginians and pushed the Greeks back. It was important that war, in the west with Carthage and in the east with Persia, fixed the boundaries of Greece.

This determining of the Greek boundaries, fixing them, is an important step in the development of myth. The whole territory was organized. e.g. Zeus was now [to] become the ruler of all the parts of the enlarged Greece. Steps in the development of [myth]: 1) There is putting together of the myths themselves which go beyond the cult. 2) Commercial pushing out into new horizons to western Mediterranean and establishing of western frontier was quite analogous to the discovering of America by Europe. This commercial life not only brought new material, necessitating new organization, but they came in contact with other peoples, Mesopotamia and the Nile valley. This gave rise to Geometry, etc. The contact of these techniques had great importance.

The contact of cults need not necessarily have much effect. The cult may ward off and thus keep pure. Yet the contact of the Greeks with the techniques of other peoples was the first step in the develop[113|114]ment of the exact sciences of Greece. (Religion had no such influence.) They entered into the technique of the science of Babylon. They entered into the technique of the Egyptians. One book sets forth these new accretions from the others. It is very full of error to us, yet the accretions from Babylon, etc. are the material for science. Later the Greeks took these materials and techniques, and developed a science out of them. The techniques of the Egyptians were concerned in building, etc. In the hands of the Egyptians this was never developed beyond the task. This technique could very readily be generalized into material for Geometry.

We have then arising out of the situation of contact of technique a material which is the material of education. This must be handed down in different forms. Myth was once connected with a cult, now it becomes generalized and stands for itself. The myth is isolated out of the cult, then the organization of the different myths, and then the bringing out of Materials out of the organized myths which were not in the original cult or myth. History and geography were first a part of myth, now they are distinct.

Again we have the contact of the Greeks with other civilizations. Astronomy, e.g., taken from the Babylonians, was magic, astrology, in Babylon. But the Greeks took it over, not for astrological but for astronomical purposes. Thus Thales studied the eclipse and could tell the eclipse was due, but could not tell when it would appear. The Babylonians used this as magic. Thales used it with no thought of magic.

Again, one told the king that he could tell him the height of his pyramid by standing so that his shadow was the same length as self. Same for pyramid, i.e., the right-angle triangle problem. We know that the Egyptians used this formula in building the [114|115] pyramids. Architects were called rope-knotters, because they had a crude method of ropes. It represents the principles of the right-angle triangle, but the Egyptians never generalized it. But when the Greeks came in and got out the principle of similar triangles, we have the beginning of a science. The technique ceases as a technique, and is now different. The stuff is all there in the technique, but it requires a different attitude toward it for science when there is more than before. So the Greeks get in contact with other techniques, not to use them in the original setting, but they bring them over into new situations and out of them appear these sciences. cf. Education of Greek youth in Davidson's *Aristotle.*[2]

2. Thomas Davidson, *Aristotle and ancient educational ideas* (London: William Heinemann, [1892] 1900).

Lecture 21

[The Role of Education in the Development of Greek Science]

We are indicating the conditions under which the body of material came into existence for education. We considered the groups of techniques becoming cult and the place of myth in the cult process. Then we had in Greece numbers of myths which necessitated harmonizing, e.g. Hesiod. Then, besides this harmonizing, from the structure there arose geography and history, e.g., Zeus as to crops, etc.; into the life of Zeus are woven the meteorological phenomena. Bringing these together from different communities, there is a placing of one before another, to get a temporal arrangement, to avoid opposition. The life and death of vegetation itself is put into life history. The necessity for arranging the different ones in reference to others, naturally gives rise to history. History arises out of the arranging of myths themselves so as to have consistency. Similarly, the bringing together of myths from different communities and their harmonization makes geography necessary in the very task of reconstruction (of their environments). Then commerce also brought them into contact [115|116] with other techniques, etc., Egypt, Babylon, etc.[1] This material was related to their own material and the very process of relating these gives rise to history and geography.

1. After this sentence the following sentence was deleted by hand: "Therefore there is Reverence for Egypt and Babylonia, from where astronomy and geometry, etc. were gotten."

The relating of new techniques, which Greeks themselves did not use, gave rise to science. The Greeks used a form of magic. The astrology which Greeks took over from Babylonia was taken over apart from its origin.

Again there was no architecture among the Greeks as in Egypt and Babylonia. Greek temple is simply an idealized Greek house. God has best house. But it was not in any sense like the monuments which were designed to impress by their size, etc. Nothing like this in Greece. The building is simply a house, giving it beauty, did not carry with it any physical character, science. Contrast mediaeval cathedral building—very hard to do, great walls, many problems of how to do it: therefore physics arose. But the Greeks' temple brought no problems. The Egyptian did. The pyramids, orientation involved, etc. to a considerable degree, calculation. There is nothing like this in early Greek architecture.

The Greeks then took over an astrological and architectural technique. The Egyptians had to re-measure their land every year on account of the Nile overflow: so the need of an engineer.

But Greeks had neither the astrological nor architectural technique. These they took over. Neither of these was science in Egypt or Babylonia. But Greeks took them and made sciences of them. e.g. The Babylonian was interested simply in the eclipse as an omen. The Greeks were interested in its cause. Babylonians were interested in the movements of the planets. They divided it up into seven periods or 360 days in a year; but this was astrologic[116|117]al, a part of their religion and of the magical process. [To] the Greeks this became the Scientific Problem—How to explain the movements, the retrogression, etc. To Babylonians this mass of material was gathered only in the magical process; for the Greeks it became the material for science.

This then is the way materials grow and develop for the Greeks or for any other countries.

The relation of the philosophical to scientific is [what] we have seen in meteorological and mythical.[2] For this mythological drama of the world the Greeks substituted the process of nature from water to solids, then to fire, etc. It was a generalization from their natural process. Thus the mythological generalized into a nature process—water, solid, fire. Air was missed.

There was also conflict—e.g., fight between fire and water. Also the sense of justice in the conflict, one takes more than its share. They carried over into this also the theological divinity of life. Thales identifies life with air, the animistic point of view. He conceives the world as breathing in life, in air. Heraclitus conceived fire as the vital intelligence, divine element in the universe.

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2. After this sentence the following sentence was deleted by hand: "The substitution of a process in nature for the drama is mythological."

Thus we have mythology generalized into a world's process and some of the religious content is carried over into the science as such.

No other people have done what the Greeks have done. Nowhere else has there been an abstract process in science. India had some mathematicians, but the Greeks had great influence. Persia had power but not for science as did the Greeks. 1) We can see how the Greeks got it from other peoples. 2) Then from their own mythology, an abstraction from this. [117|118]

The question is: Why should the Greeks have developed sciences thus? Why should they have separated a part from myth(ology), not taking the mythology of Babylonia or Egypt as a whole but only the techniques? Then they took their own mythology and developed out of that science apart from the cult out of which it had arisen, out of cults generally agricultural in origin, volcanic, etc. But why should Greeks uniquely, i.e., distinguish[ed] from others, have taken technique of astronomy, etc. or the organization of mythology and made a discipline of it? We can understand the place of myth in cult and its connection to a distant object. Also their preservation, organization and how this brings contents not expected before. We understand, e.g., as Jehovah became universalized into a world deity—making use of monarchs of Assyria, etc. There is a magnificent example* in Isaiah—the mere bringing together of other cults and organizing them brought contents not there before.

In Olympus. Two different generalizations—that of Homer and Hesiod. Hesiod reflects barbaric Thrace, no joy, reflects the hard life of Greek peasants, a hard world which grinds men, somber in its whole tone. Over against this is the Olympus of Homer, joy, brightness, laughter of gods, irrepressible. Is an idealized court on the coast of Asia Minor. It is hard to realize that they are similar. In different communities we get different results. The bringing together of the cults and myths is responsible for the new results—the spiritual advance. The movement is exactly parallel to Canaan and the rise of new material from the organization of new cults. The Hebrews thus developed a new conception of the deity which was unique. But Greece did not develop new conceptions of deities but a scientific method. Why should they do this? Babylonians or Hebrews did not do this. Why should they? It has been [118|119] accounted for in that the Greeks had a peculiar endowment. We will never be able to determine what the native endowment of a race is responsible for. But the social situation is more important for us, for IT is in some sense under our control. The social situation had much to do with Greeks. e.g. The relation to Babylonia, Egypt, etc. and taking of techniques apart from the social sanctions that went with it. How much their commercial relation helped, we do not know. They were between the countries. But they took the techniques over critically, taking what they wanted. Thus they had to explain them. So Heroditus explained some other cults. Thus they studied other cults and were interested in techniques apart from their social function. This interest in techniques apart from their social

function is responsible in part at least for rise of science. They were interested in cults for their own sake; Cult had to have worth in itself. But why did the Greeks have interest in cult in itself? The very fact that they took cult apart from life of Babylonia or Egypt, made it necessary that they give some psychological causation for its function—made necessary an explanation. Thus they develop it into a philosophy.

This taking of myth or technique as a thing by itself is essentially aesthetic (an aesthetic moment). e.g. In Isaiah we have a conception as an overpowering figure, apart from his function in relation to life of Hebrews. It is a consideration for its own sake.

This is taking place in Hesiod. Myths are being gathered together apart from their cults and out of this is developed mythology with new content, and therefore a kind of theology—dependent on the bringing of the cults together. [119|120]

This is essential in techniques too as such. In Greece the techniques were separated from the myths. So the mysteries in Pythagoras: Here we have the development of technique as a social organization. This made possible the separation of technique from myth. (See Davidson's *Aristotle for Education*; Rhode *Psyche* for account of conception of god.)

LECTURE 22

[The Aesthetic Object and the Social Origin of Reflection]

The point we have reached in our development of the Greek historical is what we have reached in the development of the act, i.e., the AESTHETIC. The aesthetic comes before the reflective thought analysis and is distinct from the working image. The aesthetic is a whole, an inner organization. We do not react to it as the working image. e.g. The landscape may show us the object so as to react to them; this is the working image. We cannot react immediately to the aesthetic, artistic image. Yet the artistic activity is still recognized as an expression.

The point not worked out so far: What is the aesthetic object? Why is it? What does it come from? It does not come for the sake of immediate reaction, but belongs to a different level. We have brought out just one phase. The object in the cult which takes the place of image tends to bring about BELIEF and thus reacts on the cult. This still does not account for the nature of the object. A full discussion would take us into the whole psychology of aesthetics, and we cannot do this here. But this belongs essentially to the field of social intercourse, that field in which something is set up as a symbol. Now the symbol has two references: 1) to that which it symbolizes, that whose meaning it conveys and 2) reference to the individual to whom the meaning is conveyed. It is 1) a symbol of something and 2) to somebody. [120|121]

Every symbol has this double reference. The aesthetic object, which is certainly the form of the symbol, brings out both of these references. Take a piece of decoration, a figure which is drawn, such as among Australian Blacks, where a hunting scene is portrayed. These figures mean the experiences and

bring up the emotional values of these experiences so as to bring up these experiences. So the object has to be so constructed that it can bring back the whole emotional value to experience. The unity which we start with in consciousness is the unity of the act. In that unity the object of experience, the working object may be only a fragment: e.g., of person or tool; unity does not live in our perception of person or tool as a whole. But here unity lies in our *reaction* toward it. But take an ax. One looks at an ax, appreciates it, then all the phases of the activity come back in response to the aesthetic image. So if it is an aesthetic image it accomplishes just that of bringing all phases of the activity into experience. So pictures of the Australian Blacks bring back the emotional values of an entire experience, and this is the work of the aesthetic image. The aesthetic is an organization of the act itself. The working image is a fragment. The aesthetic image takes in the whole act. This accounts for its emotional value and if carried far enough accounts for its beauty. But it does not yet account for the function in the consciousness of the aesthetic object. Does it simply rise to be appreciated? Or does something arise independent of appreciation? We get an answer to this in our analysis of social intercourse. We saw this lay in gesture which was answering gesture. That these gestures are the beginnings of acts which evaluate the whole act. And that they get a value in compensation, became separated from activity, standing for the activity and call[121|122]ing out the response of someone else. Now the earliest gestures are the attitudes of the body. And these attitudes of the body stand for the entire act that is to take place. The best illustration of them is that of a statue, e.g., of Socrates, as a man standing ready to speak. This standing thus is a wonderful expression of the readiness to speak, and the presence of an audience, etc. The whole situation presents the attitude and posture of speaking so perfectly and calls out all emotional responses of speaking, so that it is now separated from the act to follow and now stands for that situation completely apart from a certain reaction. Again the athletic statue. In every case of statue we have an attitude which represents a whole activity, which calls out all the emotional values of the activity to the observer. On the other hand, it is only as these attitudes express some things to *somebody* that they can exist. Our consciousness always takes on the form of the act. But we have two levels in our consciousness: 1) original, instinctive, now habitual activity, 2) reflective activity. The reflective activity is essentially social in its character and manifests itself in conversation. The *instinctive* level—consciousness reduced to its lowest terms. Perception is as much as is necessary to set reaction free. The *reflective* or *upper* level—is also a needed activity, but the response is a social one and the import of this reflective level is its relation to the instinctive or habitual level; i.e., this level stands for the instinctive level, gives meaning to or is the meaning of the instinctive level. One cannot act reflectively without acting for or to somebody. This is done consciously and uses the instinctive as tool. Thus the reflective are *expressions* of the instinctive habitual level—but

to [122|123] somebody else. This is social. This expression is in the emotional value which comes from expression to somebody.

We have seen also that the aesthetic objects which exist in this field become the concepts. The attitudes then come to represent the whole process to which the image refers. So the drawing of "Spring on the Kangaroo"; it represents the whole process and its success as a drawing is in its bringing up the whole or all of one's reactions. So the concept is the feeling of all one's reactions toward an object; a readiness to respond. And as it passes over into reflective consciousness it stands as an image for all these activities. So one by one we can take the object to pieces and define the object. The process then is the social situation in which something is expressed to somebody. The content is in the emotional value of the acts themselves. Perhaps it is best expressed in music which brings out all the expressions and attitudes which we could take. By holding on to the rhythms and combining them you get the emotional value of all these possible actions.

In the earlier stages then we have the period of imagination, a period when thinking is done in sensuous characters, when consciousness is lyric (Santayana's phrase) when children revel in stories. It is the period of lyric songs and dramatic representation. This is the form which the beginnings of Greek science took. The early Milesian philosophers put their doctrine in poetic form; yet it was not first a doctrine and then designedly constructed into blank verse. What they did was to take all into the great process of nature which they saw going on; they brought all their experiences into the imagery of nature. All the processes of nature and our reactions to them were given in these objects. On the other side all these [123|124] philosophers had their schools; i.e., there was a particular group in which this presentation of nature took place. There was the relation of master and his disciple. Whether you find it in the form of cult or as in Pythagoras in a group of political comrades, etc., there is always a group to whom the presentation will have meaning. If you follow the tradition back you will find it in a school of some sort. So it represents the value of a group of human experience, and somebody to give it to. So 1) the aesthetic object gathers experience of the group, etc. into itself and 2) for the sake of giving it to somebody else. So the artistic process is an expression, but an expression to somebody. See Gompers: Pythagorean Presentation, *Greek Thinker*[1]; Rhode: *Psyche.*[2]

We have seen that the aesthetic object is an element in the act of *expression.* The gestures are frequently spoken of as an expression of emotion. The

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1. Theodor Gomperz, *Greek thinkers. A history of ancient philosophy* (London: John Murray, 1901). (German original: *Griechische Denker: Eine Geschichte der antiken Philosophie.* Leipzig: Veit, 1896.)

2. Erwin Rhode, *Psyche. Seelencult und Unsterblichkeitsglaube bei den Griechen.* (Leipzig und Tübingen: Freiburg i.B., [1890] 1898).

phrase is unfortunate. It should be rather "emotional expression." The aesthetic object then brings out the value of the object in terms of experience, experience of former acts, and the unity is found in the unity of the experience which it symbolizes. On the other hand it expresses the value of the experience in relation to others. The act of expression is not so much the expression of a meaning already there as it is a coming to consciousness of meaning in the social intercourse. One's own attitude is interpreted by the gesture, the social reaction of the other person. One comes thus to consciousness of the value of past experience in the object through the expression of it to others.

It is very important to recognize that the idea is not first of all in consciousness and then conveyed to others by an arbitrary set of symbols, but the meaning of our own attitude toward another is in[124|125]terpreted in terms of the attitude of another toward ourselves and the aesthetic object is the development, the externalizing of an attitude or the gesture.

Coming back to the gesture, or the presenting of our response or the response of the individual to the other persons. A gesture represents the attitude, and that attitude stands for the act. We get such an externalizing of attitude in sculpture, get it in still simpler form in the dance where attitudes come to represent the meaning of the activity for which they stand. Sculpture is only carrying a step further the externalizing of the attitude which gives the meaning. Again, [in] poetic art which presents a picture, [it is] the aesthetic object to which the individual responds. There is always somebody to receive, always something to enjoy, etc. There must be an appreciation of the work of art as such in the normal functioning. This is as true of the artistic production of the poet as for other art. You get its meaning in the very process of conveying.

Coming back to early Greek scientific thought. We have reached there the parting of the ways between reflection and scientific thought, have reached the point where the material which makes a work of art must also be the material for analysis. Have seen in Thales how the myth gathered up the life processes and the entire life processes are represented in the organized myth. Not only each phase but all phases of the life processes from birth to death, also different arts are organized into a whole—mythology. This organized whole is in some sense the artist's presentation of life as a whole. Now this organized whole takes in nature as a whole. It answers to the full process of man as represented in mythology. Take, e.g., the different gods—dryads, etc. representing the different stars, points in the heavens, etc. We see how completely nature [125|126] represented life. Mythology represented in some sense a deity and there was a direct relationship between man and nature. Back of it all lay cult, etc., so that the presentation of nature was in some sense a presentation of human life. It is only fair to recognize that the presentation of human life was not altogether a successful one. In effect this organization as a whole passed over into definite formulae and processes became fixed and

gave priests power and brought bondage over the people. Likewise in Greece at the time of the Persian war, there was a definite tendency to organize life as a whole with oracles as the center, and priests were reaching out their tentacles to grasp power. It is presented in Hesiod. There is also a presentation not so complete in Homer. In Homer there is not such a grip on life but bards and their myths sought to control. These writers present it while the control was not complete. There were also other writers and there was a tendency in the times to organize cult and myth into a whole. What we wish to point out is that this organization of life as a whole had its counterpart in the representation of nature as a whole, and nature became a deity.

We have found out, first, that the step in the development of myth and technique was that of generalization, as illustrated [in] Greece, and the generalization of mythology into natural processes. The element of personality was the element of difference in all the mythologies. The common element in them all was the *process of nature,* which was dealt with by the Greek philosophers, not as a personal life of a deity, but as representing that process which always goes on in nature.

The point that we were discussing was the social nature of thought itself. We carried it to the point of the aesthet[126|127]ic object within the act of expression—this expressive act which finds its complete outgrowth in art, and is worthful in emotional evaluation. We found the next stage in the process is the generalization of the *aesthetic object.*

The social phase of the aesthetic attitude is that the expression is an expression to others. This is social as is plainly seen.

When we come to the reflective process, which is a generalization, we come to the region of the abstract. The philosopher can seemingly retire and thought go on without stimulation from others. But analysis shows it must begin with something and end with the relation to others. But is the thought process itself social? Is it possible that an artist on the stage can produce attitudes with reference to no one? In some way the artist must do for others. He himself must stand back and criticize and appreciate his own work, if he has no other audience. It is not until we get the reaction that the work of art is achieved. But is it true that the thinker is also social? The thinker may think, in order to write down as the artist paints. Yet he may think, meditate, without the intention of writing down. While it is an aesthetic object it is certainly *social.* But when the process is a process of his own, is it social? We have an important problem here for education. For if it is social then the social situation must be (say in geography and history) created. If it is not social then we can simply give a lesson. This latter has been the point of view. The question is how far is a social situation necessary to impart geography, arithmetic, etc. Or shall we turn it over to the child and let his mind work it over? i.e. Shall we assume that the mind is an organ in the body like the stomach or intestines and that it works [127|128] over what it is given? This

is an easy way to take and then teaching will be the furnishing of material. But it is a different situation if thought material is a process of intercourse, if the child's thought is all in relation to other individuals. The interest[3] of the child is then different, for the child's interests are social interests. Education then comes back to producing a social situation, the materials of which are social, or out of which the materials shall arise.

So if we assume that thought is social, it does not take place within an interior of some sort. It takes place in a social situation. The very process of reflection being social, now, and was from the start, makes it necessary to approach education from a different point of view. e.g. We can relate the period of Homer [to the] aesthetic stage,[4] and see that it comes before the reflective. Of course chronologically these are run together. There was some reflection in the time of Thales, but they had never reflected very much. It was when they commenced to generalize on the techniques of Egypt, Babylonia, etc. that we have a new period of pure reflection. e.g. Thales in his generalizations on water, was said to be able to predict a good olive crop. Yet this had no effect on his philosophy. In his time neither astronomy nor philosophy had any practical application—i.e., they did not use them to do general things. The theory was for its own sake, and does not seem to have any necessary social situation. The situation is like that of a child in arithmetic to whom we give an abstract problem. The abstractions have no necessary relations to life, yet we feel that the child should work over them. Is not this what the Greeks did? For quite a period before the theory was brought over to the practical building of buildings, of bridges, etc.? Does it come this way? [128|129] Theorizing seems to be in someone's head—in the interior. But when it becomes practical it is social.

These philosophies arose in certain "schools"; in cities which were engaged in commerce. This commerce carried them beyond the horizon of their mythology, e.g., their mythologies had definite horizons as seen in Homer. These cities had adventurous merchants who went beyond these horizons, and thus beyond their mythologies. Just as in the medieval period, the circumnavigation of the globe made necessary the reconstruction of theology on account of the shape of the earth, etc., so the going out of adventurers made necessary the reconstruction of the mythology for the Greeks. What Thales did, then, was to reconstruct mythology by freeing it of its horizon, its boundary points, and its new situation became vital, i.e., its processes were vital, but the horizon was freed. The problem here with which the Greeks dealt was to free their mythology from the local and thus pass to a larger horizon. The problem was therefore social in essence—it belonged to the life of the community, the cult,

3. "interesting" in original typescript.
4. "and separate" taken out.

etc. The generalization of Thales was a statement of the principle which had worked in mythology. Now there was to be a life process, not for a *particular* region with its cult and myth, but for the whole world. The statement of this larger process thus frees the cult. And as the cult was social, the larger situation was still social. And as the myth explained the cult in the local situation, so now it still explains it in the larger situation.

The effect of the accounts of the travelers to the West and to Babylonia, etc. is seen in Homer, Hesiod, etc. The work of the philosopher in this early stage is exactly comparable to myth, i.e., it is essentially an explanation of a problem to his [129|130] school (cf. local nature of myth), and the form it takes—poetry, shows its aesthetic character. The problem here is a social problem of the day, and makes a reconstruction of the social world. Just so Kepler and Galileo wrote and thought in order to readjust to the conditions of their times. They did not think in terms of the "I" and the "me" but there is a constant reference to the orthodox doctrine and to his own belief (See Dewey's *How We Think,* for the next lecture.) Galileo had reference to Aristotle, and the geocentric view which he was trying to overthrow. Just so the Greek philosophers were trying to overthrow a situation and adjust to the situations of their times. So as the myth develops it represents the growth of reflective thought.

Reflective thought has always grown in a social process, a social situation, whether in Greece, or in the law of the Hebrews, or with the Romans, etc., it is always a problem in a social situation. A social situation always sets the problem, e.g., the Hebrews and their Jehovah. So in Rome the law was based on the relation to colonies or the capture of new territory. But when the time came that Rome had to peaceably readjust her relations to the colonies, a social problem was set, just as the problem of the Hebrews was set. So the problem of astronomy was social—the height of a known is compared with an unknown object—a practical problem. So the problems of Pythagoras were all social.

Now since these problems arise out of social situations, the question is, must not the treatment of the problem be social? Before the child can get the meaning of any thought he must get it in a social situation—a situation involving his own experience. [130|131]

LECTURE 23

[Pythagoras, Subjective Consciousness, and Abstraction]

We have seen that in the case of the Greeks, problems which arose out of commerce and geographical discoveries were essentially social problems, and they involved a reconstruction of myth and mythology and of geography which grew out of mythology, as well as a reconstruction of philosophy.

There is another phase of this philosophy, more sharply distinguished, which is represented by Pythagoras. He was a "philosopher," a term applied to a scientist, and in some sense to a social reformer—i.e., a social as well as physical scientist. Pythagoras had many companion figures. Those who represented certain cults, etc. The cult of Pythagoras when it appeared was new for Greece, carrying many novel points of view. These cults had back of them, as new, the idea that the god took possession of the individual. They were accompanied by very violent emotional outbreaks, and the environment of the cult fostered these. The impulse behind the cult was a high feeling of personality and a longing for its expression.

These two schools of philosophers must be placed over against one another. The generalization of Thales grew out of concrete situations dealing with exploration and discovery, which involved the extension of the cults of Bacchus and Orpheus. Its situation was both concrete and external. Pythagoras carried the external over into the subjective. There is a fine example of this in the French Revolution. Here there was a changing of the external into the internal, the changing of the absolute of the medieval days into the inner

political responsibility, of the later days of freedom. The political responsibility was thus transferred to a position within the consciousness of the individual himself. There followed also a development of an [131|132] inner religious feeling in the rise of the Methodist movement.

There is then first the development of technique into an objective experience, then second the carrying of this back into a more subjective experience.

So in Greece, the values were expressed in the cult and the myth in the religious form. But the human value for the community is expressed in the inner life and the new cults which sprang up gave expression to this inner feeling which had not existed before. The cult, as we have seen, was very emotional. It was a heightening of the subjective consciousness, and an attempt to identify the individual with the god himself; this had been lost in the other [,i.e.,] in the previous cults. These new cults of Bacchus and Orpheus were not local, workday cults or gods of the people, they were imported and represented nature rather than the specific activities of the community.

Pythagoras took this situation and these cults and tried to develop a morality, a way of life. His doctrine of the transmigration of souls (some wonder where he got it), but it naturally grows up at a certain stage in the development of consciousness. The soul was practically a new individual but not exactly identified with the person. The souls are creatures that are hardly conscious. Only after they drink blood are they conscious of the world in which they live. See Homer. As in Achilles, the person and the secondary self are separate. This secondary self answered to the condition of sleep, sickness, etc., [it] stood for the self, but was not necessarily a part of it. They wanted it* and tried to get rid of it after death.

Now with the increase of subjective consciousness there was an increase of the content of this second[ary] self. e.g. The doctrine of the soul grew up. The leaving of [132|133] the body, the coming and going of the soul belongs to this early view. The doctrine is one then which grows up in any community where they pass beyond the second self as we have it in Homer.

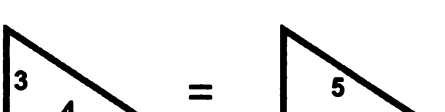
It was this soul then, that took on the larger subjective consciousness. The problem then in the Greek situation has two sides. 1) The breaking down of the dogma of myth. The particular element of the myth no longer provided for the community. The merchants sailed beyond their horizons. The change from country to city caused change of cults. The old cults lose their significance. Cults of artisans or slaves now do the work. All the shifts of life cause change of importance in the cults. (The second is the reference of the emotional value back to self.) Some features develop with the change of life. e.g. The growth of the drama, etc. It all involved the separation of cult from every day life. The effect was 1) to bring to consciousness the idea which lay behind the cult and 2) to transfer the emotional value which belonged to the cult to the subjective consciousness.

The generalizations which take place can be seen going on before our very eyes. e.g. From a specific horse designated by this term we pass to the use of the term in the abstract for horse in general. This is just what was taking place in the Greek situation which we are studying. The cult losing its significance, because its expression in daily life changes, makes necessary an abstraction. This happened in Greece and in the Medieval period and in the history of the church often. There remained then the import for the immediate world. At first the horizon was just what they could see. But when this was broken through there was left the idea of the world as a whole, which was divine, but this was separated from the specific, concrete, sensuous material of the former [133|134] horizon.

There arises then 1) the abstraction and 2) the emotional value tends to be carried over into the subjective. The single, the concrete, is now abstracted into the subjective.

You find in the history of thought that any development of abstract idea is followed by a heightening of subjective consciousness. It is this which makes the Pythagorean and its cults a contrast to the Milesian cults. Pythagoreanism is represented in the transmigration of souls. This subjectiveness is carried out in the order of society which the Pythagoreans attempted. The Pythagorean society attempted (as did the cults) to enlarge the emotional subjectiveness.

The doctrine of the Pythagoreans is highly abstract—that of numbers, different ratios, proportions. He thought he found these chords in the relation of the heavenly bodies. There is the Pythagorean proposition in geometry dealing with the relations of the right angle triangle. These abstract contents we can get hold of but they have for us no emotional content. But evidently they had a very different import for Pythagoreas. e.g. The relation of the diagonal of a right angle triangle to the two sides, when it was discovered, was a thing that could not be spoken of and it filled them with awe. The Greek at that time had not separated the spatial magnitudes and the numbers. The thing numbered and the number were identified so the world was not identified with the numbers 1, 2, 3, etc. but by means of points, lines, etc. They had no conception of the infinite. They did conceive of lines as made up of points. And to say a ratio could not be expressed affected them tremendously. Such a relation as the right angle triangle—such relations were of great value.



For us this has become mere formula for measuring of the sides. But they could not deal with [134|135] fractions and they had no decimals as we have. So they were compelled to seek for whole numbers. There is a whole vocabulary of numbers which today has been passed over by students of antiquity as unimportant—but it really represented great thrills on the part of the Greeks. So what we wish to point out is that the subjective phase always develops along with the abstract naturally.

LECTURE 24

[Abstraction and Generalization in the Thought Process]

We were discussing the abstract, logical processes of thought and their social applications. This is usually dealt with under the technical phrase, "the world of discourse," a phrase which implies that the world of discourse is one of conversation. If we go into the logical process of discourse, we see that it involves the presentation of a problem and its solution. This comes through the presentation of the aesthetic image. Then comes generalization, which we traced in Greek thought, and also found that it answers to a certain stage in child life—a time when the child is susceptible to certain kinds of abstraction. These abstractions belong to the field of discourse and come back finally to a method in conduct.

The important point here for educational theory is involved in discussion, i.e., social discourse, and the extent to which abstract thought is used for purposes of interpretation. Going back to the Greeks we recall that the generalization of the Milesian and Pythagorean schools were of the character of the religious thought of those times. We have already spoken of our own modern higher criticism—i.e., whenever an abstract thought is made we always have to recognize that with reference to which this thought arises—e.g., we might think that the abstract ideas of the Greeks [135|136] were distinct and separate from the social situations then prevailing, but when we look into the matter we find instead that they are attempts to interpret the existing situations. So the most abstract of Greek thoughts can thus be traced [to] such

interpretations. Take Parmenides and Zeno for example. Parmenides developed the dictum "that which is, is"; "all change involves that which is not." This is about as abstract as you can get. Zeno followed him and is remembered for his paradoxes, e.g., "Achilles, where is the arrow when it is in its flight?" Zeno was interested in pointing out the paradoxes of change—the illogical phases of change. This is highly abstract. But what we have to consider is the *condition* which Parmenides was opposing, if we are to understand the abstraction at all. It is [as if] we see a part of a "discourse."

Every abstraction then has two sides. It is critical in character. What is going on with the Greeks is the development of great natural processes such as could not be stated in terms of their existing mythology. On the other hand they, the philosophers, point out that there does run through it all a *single* natural process. And it is this content which these philosophers are bringing out against the mythology of their time.

Another illustration of "discourse" is the criticism of the mythology of the time by the later Greek drama. The drama criticizes the gods and goddesses which came down from early times, and presented a theory of god such as appears in Sophocles. They were criticizing the moral defects of the gods and thus attained a very high moral conception which they attached to the gods as is seen in Aristotle's Zeus, etc.

Such a criticism always brings out a new *generalization.* On the other hand every wide generalization is always preceded by such a criticism of existing con[136|137]ditions. In fact such a generalization arises directly out of such a criticism. This then is the process of "discourse."

So when one finds certain conflicts between theories as, e.g., the Ptolemaic versus the Copernican theory of planetary movements, out of these generalizations science arises. e.g. Take the current interest in the comet's tail. The day comes when the comet drags its tail behind it. But its tail goes ahead. But the tail extends away from the sun, and why should it be away when the sun attracts it? Such conflicts give rise finally to new generalizations. We work out the tenuous character of the tail as compared to the more solid matter of the comet. Then the tail is developed as it approaches the sun. So it is dependent on something which changes as it approaches the sun. This is a type of generalization growing out of the conflicts of the theories in regard to the comet. New data are gathered. These in turn cause conflict in former theories.

Thus we see that scientific data as such always arise out of a problem and they are always abstractions from the complete experience. The data are never the complete experience. The generalization follows out of the nature of the problem itself and this problem arises out of the conflict of theories.

If we speak then of the "world of discourse," we note first the presentation of the object of experience or aesthetic objects. Here we have the play period of the young child—the presentation, mythological, imaginary figures, etc.;

and in the second place we have the continually questioning of these forms. The civilized child, moreover, raises more questions than the primitive child who is bound down by custom—1) the aesthetic situation; 2) questioning.

Now the generalization is an answer [137|138] of some sort to the problem out of which it has arisen. Take the problem of change, e.g., a fluid becomes solid, the solid becomes fire, but what has become of that which changed? Thus the theory of atoms developed. Atoms change their order, their arrangement, but the atoms themselves do not change. So we go a step beyond Parmenides here. How can that which is [cease][1] to be? How can that which was not, now be? So out of this developed the conception of permanence—that which remains during all change. The generalization then exactly answers to the problem which lies behind it, and the statement of the problem leads to a generalization.

The next step is the putting of the generalization into a usable form—a hypothesis. In a sense the Greeks never reached this. And so the child can hardly be said to get thus far before the secondary period of school life. We find rather in the child a questioning period and one of acceptance of all theories. The child accepts the statement that God made the world, an abstraction of all strange happenings, accounting for everything strange.

Then later the child becomes interested in what makes the machine go. Up to twelve, he was told an abstract "power" made it go and he was satisfied. Now he wants to know the why. Earlier it was enough to say "The food will make you sick." Later he wants to know why milk makes you sick. He not only asks "why," but it is all he will be interested in. All the early answers were mere abstractions like Parmenides' "what is, is." Later he demands an explanation and is not now satisfied with mere abstractions. Explanations must now be given and he will not be satisfied without them.

We could not get a better illustration of the social character of thought than this question and answer of children. [138|139]

Greek philosophy is a series of questions with abstract generalizations as answers, and only later ages develop it on out.

The world of discourse then is a world of experience. A problem arises and we seek an answer in terms of another. The problem of thought then is the problem of education. A difficulty arises in the thought of one person and he turns to another for help—for explanation. A friend may act strangely and we turn back into our own experience to try to account for this and help the other person for whom this strange act is a problem. The process of thought is thus an intercourse of experience and the presentation of abstract thought as the explanation of that experience.

This is the situation and it certainly belongs to the child up to his tenth or twelfth year. We recognize the too early maturity in the child. Before ten

1. "cause" in original typescript.

or twelve the child has not matured, but at ten or twelve he has control of his muscles, etc. as a child. He now has certain organizations developed and is now at home in his world, is in control of his body, has entered into organized relationship with others, and is independent. The child in this independent period is more or less conscious of the difference between his world and the adult world. This is the period of child mischief, of delinquency. The child delights to sally out of his world against the adult world. This period is sharply distinguished from the next period when he learns he is a part of a social whole. This is the awkward age. In this period of adolescence the child becomes extremely conscious of himself, of his being out of place, etc. See book called *Golden Age* which describes this consciousness admirably.[2]

These stages of child development have [139|140] definite parallels in the development of the thought process. (One lecture missing).

2. Probably Kenneth Grahame (1859–1932), *The golden age* (Chicago: Stone & Kimball, 1895).

Lecture 25

[The Role of Abstraction in Reflective Thought]

We pointed out that the first movement in reflective thought as you go from the whole sensuous object is an abstraction. And in a certain sense the abstraction is the highest, i.e., we have the fullest degree of abstraction under these conditions. The object of thought or the idea is distinguished from the object, in that we have in it only *one* element of meaning. We have illustrated this in Greek philosophy. Where we get to one element, as water, fire, air. We tend to get single aspects.

We find this also in the child, in his relation with the parent. It is not the aesthetic attitude, for in this we have a number of elements organized together. But in the case of abstract thought we have a single meaning, and as we indicated, this single meaning is set over against some problem, e.g., in answer to the child's question the parent replies "God made it" and this answers all. The younger child thinks in terms of a single idea. One moment he is carried away by anger, next he is on friendly terms with the same person—i.e., his ideas are unitary, not organized. What we wish to point out is that these ideas are abstract, and quite comparable to the abstractions of Greek thought.

An idea tends to become more concrete as it becomes more complex. Simplicity of an idea implies its abstract character. Complexity grows in the abstract. The mathematician's very complexity develops into simplicity. This is not true of the student who is trying to grasp it, but it is true of the mathematician who is enabled by his formula (symbolizing a vast amount of complexity) to thus handle much concrete.

So a businessman with great complex [140|141] business gathers many details into a concrete symbol. As the idea passes into the conduct it is concrete. Hegel has laid great stress on this. The bare thought of water, etc., is highly abstract, though well organized experience is concrete. So as soon as you get away from the aesthetic object the idea is very abstract—i.e., one single quality. The child asks what makes the engine go? One word "steam" is enough. Only a single content is necessary, and this is abstract. And this is the earliest attitude of the mind in its growth toward deeper formula.

This makes it difficult to teach the child for the child's intellectual wants are so little, and he will accept such simple answers. So the complex in the adult, we say we cannot explain to the child. For the child wants so little that we cannot bring our complexity down to him.

The emotional values belonging to these abstractions are also very simple. The child is carried from one simple emotion to another. The child sees only the hateful, only the lovable. We get a similar illustration in the comparatively simple attitude of the great mass of people. Take the voter and the average candidate for election. What value can the pictures scattered over the ward have for the cause of the candidate? They do have a value. What is the value of going about just before election and shaking hands? Or of the speech which depends upon the telling of a joke? Just to show that he is a good fellow; this is better than to show that he is capable. All of these show in highly abstract ways the *immediate* relations of individuals. It brings out the "good fellow." It brings out only the barest qualities, abstract elements which go to identify him as a human individual. "Just to show that I am a man and not an ape"—this calls for the simplest form of human [141|142] reactions—calls for no moral reaction—only the simplest reactions. The average candidate has this very simple relation answering to friendliness. This is on the whole the most abstract attitude one can have. Bare relationship of friendliness. This is the type of the emotional expression of children, the kind we find in Homer. It is the kind easily produced on the stage and gets an easy response. The audience are in tears in the midst of the play but are ready for the theater dinner afterwards. It is ephemeral. Thus abstract in character, a single element, and abstract[,] a simple emotion as well. We must not confuse this with the mathematician's formula. Here a very complex meaning lies in his consciousness and is put in the formula. The method of this state of consciousness is essentially that of question and answer.

Another illustration from Greek philosophy is that of the Eleatic, "that which is can not change," i.e., just because it is. Now the content in the mind of the Eleatic was of solid matter, reality, permanence. It was not a spiritual or moral content. It was a sensuous content, but in the last degree abstract. Abstractness does not have to do with the meaning side as against mere statement. Meaning is highly complex as against the abstractness of this sensuous experience. This abstractness of the child and the Greeks is closely parallel in

that answering the question "what is the meaning of this change?" a single idea will serve. If we follow the Greek, we find the meteorological change as an answer, the "now water, now air, now earth." This as against the former "no change." So two things here 1) assertion of a process of change; 2) and of something that did not change. These two ideas were the answer to the problems which arose.

The next step represented by Empedo[142|143]cles brought both of these into use. A conception of change which did not involve a change of the elements themselves. It was change but the elements did not change, but were continually moving about. So this is a mixture of the elements themselves. It was a combination of the former theory of elements which do not change, but which now includes assertion of change. So here in Empedocles is permanence in change. It is the conception of Parmenides reduced to a nutshell. It is a combination of the two ideas.

Now this combination is again parallel to the way of the child. The child has simple abstract ideas, then these become combined. As growing complexity arises there is a growth of organization. The development of the idea involves growing complexity, involving the bringing together of the separate ideas. The fact that any experience has a single or simple content means that it is isolated but to have relations to the rest of the world, the content itself must be complex. The single idea with simple content means no relation; this is the state of the child. But as ideas are brought together the relations with experience become more complex and control grows.

The process of consciousness of the child is that of simple questions and simple answers (conversation), then the growth in complexity—the bringing of the ideas together, answering to more complex problems. So the contribution of Parmenides['s] "what is, is," is [a] very simple process of growth in complexity from this purely abstract situation [that] is noted in Greek thought: 1) not only permanence but change and 2) some permanent, etc. It is a growing process of organization.

The next stage in this development is that which arises with the Sophists, and the [143|144] greatest of these, Socrates. It is a development of method. Socrates brought out a method of thought and applied it to the problems. When you get to this point in the development of the child you feel that you can do something, i.e., you can then undertake systematically to develop his consciousness.

LECTURE 26

[Abstraction and Magic]

Considering the character of more primitive thinking, bringing out the fact that in its first stage it was abstract: its content is more definitely of a sensuous character. What we get is an element analyzed out of the aesthetic object. This element is highly abstract, i.e., its meaning is abstract. It must have a single meaning, value. It has not reached the point where it is able to control experience.

This type of reflective consciousness is very well given in magic, so far as that involves thought. There is a single conception of power. Again the child accepts any single aspect of the case as an explanation. All thought is analyzing out a single element from the aesthetic object, as the important explanatory phase for any problem which arises.

This answers to Greek thought—of water as a cause. Also the love and hate of Empedocles. A single feature is abstracted as the cause of the whole. The content then of consciousness in such a period is sensuous. The abstract idea is not native to such a content. The situation in which the meaning is the dominant phase is not found here.

Let us consider the function of this phase of consciousness—any situation of this kind arises out of a problem, e.g., in the Greek world with its conflict of cults due to the different colonies and their [144|145] techniques. The solution was found in bringing everything back to a process of nature. As the Scandinavians, in contact with Christian civilization, explained all by Odin and Wodin, explaining by one then another sensuous process.

In the midst of this process itself arises a problem—more profound—change. How can anything change? Milesian philosophers dealt with the change of myth. Water became mist, i.e., just as a magician changes a man

to a dog. But water did not become mist, molecules, etc. It was identified with spirits and related to death, etc. instead of becoming mist as we now know mist. When change came it ceased to be water, then the problem arose, what became of the water? Where is it? Then Parmenides said, "there *can* be no change." This shows how one problem grows out of another. Just as a child gets more and more profound[;] but what is the function of this thinking? Can we say it just [serves] to explain things? Is this the end of it? Or does the question and answer have a function in consciousness? It is only as the child asks questions about everything, and these questions conflict, etc., that the child gets knowledge. It is just this way that science grew in the Western world. There is no question but that it mediates conduct. But this is aside from our first question. Have the questions of the primitive man or of the child, "what makes the fire burn?"—have these a direct significance for the child? It is very important to learn this for if we do it will direct us in our work of education. The child is curious about everything, and does not always make a definite use of it. What really happens is that the child comes in contact with new elements in a new world, and he seeks to extend his control over this as he uses the knowledge he has. The clouds present a problem, and [145|146] he seeks to control, i.e., place himself in reference to it so he can act. As an illustration take the deaf and dumb person referred to by James; saw clouds arising over the Sierra Nevada; wondered where they came from; decided they were smoke from a great giant's pipe. Then the sun was thrown up into the heavens by the giant. So we see that the clouds and the sun suddenly became a problem to him and he had to relate himself to it, to be on good terms with them, e.g., rapport sought. The child is orienting himself so that he may be adjusted to all, and he wants to be able to act toward the new, as he is toward that which he always understands. The child had seen the smoke from the pipes of men, and so he took the same attitude toward this new scene of the clouds. There is no object then in our environment toward which we do not have a perfectly definite attitude. If a novel element comes in you feel the necessity of examining it and taking up an attitude toward it. If we come into an entirely unfamiliar room we have to identify, learn all the things, and thus get our attitude toward them. So when the child asks "why" about anything, it is in a desire to get a suggestion that will help him to act toward it. When you come to a strange chair, you see it, and reflect that it is a chair. You have the feeling of readiness to sit down, as much as if you sat down. So to everything in the room you have a feeling of readiness, of adjustment. Now the child is getting his adjustment to his larger world and this may be for immediate reaction, or for organization. So the child is adjusting himself to the new situation just as we saw the Greeks were when coming into their new environment. Just as Heroditus tells us, those who came into a situation in the Nile valley made adjustment to it by taking account of meteorological phenomena.

This adjusting one's self is like the [146|147] animal in its readiness to run. This taking of attitudes is the first step beyond the aesthetic phase. It consists in separating a single aspect which then becomes a stimulus for a new reaction. We ask what explains the phenomena and the explanation in turn becomes a stimulus for a new adjustment. Just as the boy saw others smoking and afterwards applied this knowledge to the clouds which appeared over the mountains. This was his problem and he took the attitude toward the clouds which he had taken toward the smokers. And this peculiar phase is the element which is isolated. This single object is sensuous but it now has a further value than before. Formerly when he saw smoking his attitude was different from what it is now. Now his imagination adds the element of the giant and puts him behind the mountains and thus enlarges his world. This characteristic which he singles out now gives him a larger control and adjustment, e.g., a boy reading the Bible after reading the *Arabian Nights* came to his mother and said "Why, God and Jesus can do magic." He assimilated the new to the old.

The function of this phase of consciousness is then to make the child at home in a new and larger environment by selecting out those elements in his experience which call forth such attitudes as he has already acquired. Thus you see the process is reflective, although it is only the beginning, for the process has value, it has a meaning for him. The value of the stimulus under ordinary circumstances has been heretofore immediate reaction so he paid no especial attention to the object. But when a strange appearance arises, then we attend to the customary. This is true of the action of the child who asks a question and gets a suggestion akin to some past experience in connection with some other object which now comes to serve for both situations. [147|148]

The next step which takes place is, as has been said, that which is involved with the complexity of the problem. The first form of the problem is that of conflicting reaction due to sensuous experience. This conflict is between attitudes which are suited to elements of the experience and the isolation of some element which resolve[s] the conflict. But the next step in the complication (complexity), e.g., think of going out of being or coming into being, unthinkable. It is an entirely *new* element. e.g. Mead [sic, perhaps Meade] once explained steam as clouds coming from a locomotive. Then when information came as to rain, etc., he fell back on God who could do everything. Then later this was complicated by new elements.

So we have the child at home in his child world. i.e. He has a perfectly definite attitude to everything there. So [had] the Greeks until their world was broken down.

Lecture 27

[The Scientific Method and Education]

We were presenting the beginning of the scientific problem as one [that] arises from the interchange of experience. The first step was the isolation of some specific object out of this interchange of experience. We saw this illustration in Greece, also in magic, also in the child asking questions and accepting some *element* for an explanation. Just as to the Greeks, the process of nature was a problem and they accepted an element as an answer: These two[,] the child and the Greeks are identical and the element accepted is the *most abstract.* It is the question and answer process—immediate.

The next stage is in a sense a complication of the problem, the bringing in of the elements. The answer as well as the problem is more complex. The question of the child is now "how" as well as "why." Then comes as in the Greeks the question of the [148|149] Eleatics; how could change take place at all. The answer was given by Empedocles in terms of atoms which move about this way and that. The question of Thales was "why"—and water he thought was rarefying and changing into vapor—this was the answer. Other philosophers raised some other questions. The answer was that air warmed vapor, was identified with life, e.g., fire, (Heraclitus) continually coming into being and passing out again. With him, fire was the "why" of the world.

The problem changes when the question: "*how* can change take place?" arose. The problem was that matter itself does not change, but that movement is due to atoms. So we have change[1] in the midst of permanence.

1. "changed" in original typescript.

Just so in the child's mind, we have the passage of "why" to the "how." He asks how seeds grow, etc. This attitude represents greater complexity, but still it is the situation of question and answer—teacher versus pupil; some schools of thought against other schools. Education therefore consists in accepting these problems and answering them.

Then again we ask the further question (in order to fully understand) "what is the result of this process"? We find a further element in the attitude which the individual takes. He has a certain readiness to act and so far as our reflective process is concerned this attitude is the response to the situation. The attitude is one not controlled by reflection, i.e., it represents the limit of our reflective control.

There are other controls arising from the failure of the control to complete itself—stubbing the toe, etc. register and cause control to arise.

But in acts not checked the reflective control extends only to the image, e.g., a child is told that rain comes from water evaporated by the sun. The child then takes [149|150] a definite attitude toward the sun. Thus to all the objects of the changing world he is continually taking different attitudes.

The process of education is essentially the process of early science, and the process of early science continues to be the process of education. The situation consists of an interchange of experience in which a single element is abstracted from the aesthetic image, then there is complication and development from the "why" to the "how," etc. Hence a process of development which is the process of education itself.

The next step forward is represented by the Socratic period of the Greeks: It is a step toward the experimental method. Of course this was never fully developed in Greece. But we have developed it further, although the early steps of our experimental method were taken by them.

It is interesting to note that the development of scientific method among the Greeks took place among the sphere of education. Socrates started the method. In dialogue and conversation, the Socratic method began here. Socrates tried to do by conversation and dialogue what primitive man did by initiatory ceremony—namely, 1) he attempted to induct young people into citizenship to discover what citizenship really meant, and 2) to find out the moral ideas—to bring to consciousness the moral ideas of Athens, i.e., to find out the truth.

He tried to bring them into citizenship with a consciousness of what this meant and according to Socrates this could be gained only by learning to think.

Put it in another way: the problem of science arose from Socrates in education. The problem came in the *method* of thought, and this problem arose in the process of education. So he set about the task of education and this took the form of learning how to think—of presentation, question and [150|151] answer; then deeper question and answer, etc.

But the problem was put in different forms, by different philosophers and by different localities in Greece. The problem came to be "how should thinking go on"? It was like the child getting a different answer from nearly everyone. To Socrates some method was an essential to the situation.

The Sophists were trainers. Successful in winning the prizes of juries, of populace, etc. It was natural then for youth to engage trainers to teach them to "make the worse appear the better reason." So the Rhetoricians were training young men for state work, i.e., so they could win. It was not a training in the work of administration, but a training in the getting of a job, much like America where it is thought any man can fill a position if he can just get elected to it.

Socrates opposed these Rhetoricians as pretending to give an education which they did not give. As against this he sought to show 1) what the meaning of life was, 2) how inadequate their training was, and 3) the method with which to attack the problem. So Socrates advised "know thyself." The method which he used gave him power—control. The "position" side of it is not found in Plato, while Plato developed much more than Socrates would have accepted—the presentation of Xenophon is commonplace and practical to the last degree. But between the two we see that Socrates was trying to bring the consciousness of virtues *to*: 1) those attitudes of life which would enable them to deal justly in the community, 2) to make possible reverence for the good of the state, and 3) to make efficiency an ideal as over against empty office holding.

This is not however the most important thing for later thought. Method rather than content was his great contribution. Method remained of prime importance, bringing under control the "question and answer." His method [151|152] was to "follow the argument where it leads." So he had to "call down" his opponent for leaving the argument for attractive and unimportant bypaths. So Socrates thought the important thing was the way by which Athenian life might be rehabilitated. His method was to bring forward a number of instances, and then find the common element in them.

The method up to this time had been question and answer; and this completed the process of thought. But Socrates got *different* statements of the problem, and from them abstracted the common element. This method revealed that the immediate answers were contradictory. An excellent illustration of this is found in Plato's *Republic,* especially in the beginning. He starts with a simple question as to whether "justice" is simply rendering to a man what belongs to him. Then follow other points of view, and still others so that it is carried on until justice is discovered in the harmony of all the different organs of the state. So the method was to get various statements of the problem and from these abstract the common element. Thus arose the two forms of method, 1) the inductive presenting different parts of the problem, and 2) the deductive—a continual testing of the problem by comparison. Socrates

did not develop the method himself, but left it to Aristotle to develop it two centuries later.

But Socrates did discover the universal—our "concept." Before Socrates, Greek thought did not have the universal. It was found 1) in a manifold presentation of a problem, 2) the isolation of the common element, and 3) application of this to the separate presentation as a test.

LECTURE 28

[Socratic Education and the Role of Method]

We have seen, from the historical point of view, the problem with which Socrates was immediately dealing was one of "method"—[152|153] how intellectual work was to be done. We saw that two phases of method that arose out of Socrates were 1) induction and 2) deduction. They consist in the presentation of the problem in different forms and the gathering of the answers to the problem, along with the study of these solutions to see if they are correctly drawn. Out of these there arises a common element, a universal. It is this universal which we have accredited Socrates with discovering. But the important thing is the way this universal was gained.

Moreover we have seen that this philosophic method arises out of the situation of question and answer, i.e., conversation, and also that it had definitely to do with education itself, e.g., Socrates had as his special task [to] bring to consciousness [the] use[1] of these old ideas, just as the initiatory ceremonies had. This discovery of the old ideas thus belongs to the work of education.

The problems with which the Sophists and Socrates occupied themselves dealt with the moral problems as contrasted with the scientific—the nature problems of the earlier period. The early discussions were concerned with the heavens, and Socrates is said to have brought philosophy down to the earth. Socrates and the Sophists were occupied with the immediate social problems and their solution. The method of solution could be, and later was, carried over to science. The method was one which inevitably comes to a thinker himself.

1. "the bring to consciousness in use" in original typescript.

The method then went back from[2] knowledge to the problem with which knowledge deals, but it is interesting that the problem was carried back, not in the early period, not in the time and interest of external problems, but at a time when social problems were forced on the philosophers. "Know thyself" indicates the point of view of the whole movement. Only when the Greeks got to a problem of morals, as a social, political problem did the problem go back to the *thinker* himself. The question [153|154] of politics success in pleading before courts. In order to obtain the prizes the young men had to convince the court. The Sophists as educators sought to give the young man the technique to push his own interests, even against all others. The extent to which the individual himself was involved in this is the important thing, so it is natural for the relation of the individual to the state to be emphasized.

On the other hand we know that Athens furnished an education in 1) gymnastics which trained for war and military life, and 2) in tradition which gave letters, and to some extent gave some control over number. So on one side they cultivated endurance, as in the initiatory ceremonies, and on the other there was the inducting of the youth into the mysteries of the communities.

However it did not touch the science which grew up outside of mythology, nor [the] treat[ment] of moral-political problems.

But the moral-political problems arose out of the training of the younger men for success in the state. It was this training with its conflicting interests of individual and community which gave Socrates his field of action. Socrates as against the Sophists sought to get back to a fundamental ground.

Historically the most important point here is the part it has in education. e.g. Plato's *Republic* brings out the harmony of social organization. This problem of adjustment, this fitting of the individual into the life of the community, is that out of which Socrates gets his conception of justice.

On the other hand they had the presentation of the Sophists as to the power and rights of one man, and of the many. If one has power, they said, he has a right to formulate laws in his own favor. Out of this definite attempt to educate the youth for their duties arises this moral and social problem—the problem of Socrates. And Socrates under[154|155]took to solve it as it arose. It arose in *education,* and Socrates as an educator sought to answer it.

We have indicated that the problem was not foreign to the early philosophers, who were all in schools following one another. We know also, that they attempted to induce the youth into a conception of the universe. We know for example that the school of Pythagoras had a perfectly definite training, astronomy, etc. on the one side, and culture on the other. There was with each group of philosophers a definite training suited to the period with its specific problems.

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2. "of" in original typescript.

When we reach Socrates we have a definite situation in which the problem forces itself on the community in the training of youth. Training not of children but of the adolescent period. Not only because the adolescent feels the problem but because the training carries the problem with it. The boy if he is to succeed must make the "worse appear the better reason." Of course many Sophists were on Socrates's side, e.g., Protagoras. But the actual problem arose out of the attempt to make the young man win. The problem arose out of education.

Here thinking and method of thought were closely brought together. If the young man was to win in his cause he had to create a feeling of the worth of the cause. The education which seeks to win and one class who seek to instruct; there is reflection, evaluation and generalization. The Sophist in instruction evaluates and seeks to give his evaluation to another, it is success through selection. When one has unconsciously learned how to handle an audience he must give it to another, he must evaluate and generalize it.

The attitude then of giving the goods of one generation to another is essentially the philosophic attitude.

Much of our science of course, has arisen outside of education itself, e.g., Galileo [155|156] while education was engaged in training youth in Latin, etc. Scientific work had no meaning but it did have meaning as over against the customs and traditions of the community. These were criticized and presented.

The conscious formulation of the traditions, ideas and methods of the communities, and the embodiment in such form of them that they can be readily communicated—this is essentially the task of educational instruction. This gathering up and handing on from one generation to another is essential to and a part of instruction. And especially the attitude one generation takes toward another, i.e., teacher and pupil, toward the traditions, the objections, etc.—this is the attitude of instruction, but it is also the attitude out of which science arises.

A theory of the development of language illustrates the situation. How can we account for change if each younger generation is fixed by the older: of course there is some variation, but why should there be change? The theory is, that in the younger generation the very process of acquiring changes the thing acquired, and so generation after generation brings about the general change. This, I say, illustrates the change of idea in the passing of ideas. The very process of acquiring causes change. Then the definite instruction, evaluating and generalizing causes changes. Also the criticism and objections of the younger generation causes [sic] changes. Then comes the consciousness of the method of thinking. This opens the door to criticism and fortunately the variation of each individual generation is a ferment for criticism.

Two figures, Socrates and Alcibiades, form a good illustration of this. On the one hand the elder generation is seeking to pass on what is essential,

finding what is essential as seen in Socrates. Then we have Alcibiades criticizing, bringing out the problems with which a Socrates must deal. So we [156|157] have in this historical illustration the case of education, which is the passing on of traditions of one generation to a younger, and the criticism of these, which gives rise to problems.

Lecture 29

[From Greek Science to Modern Science]

We have seen that the problem of education is that out of which the consciousness of method very definitely arose among the Greeks—with Socrates, and the schools which arose out of this movement, i.e., Plato and Aristotle. It is also important to remember that the schools developed in training, i.e., in giving to the rising generation what the adults had achieved.

The method of the Platonic school was mathematical, i.e., geometry. The method of the Aristotelian school was more definitely logical, connected with the sciences. That is in each of these schools there was a definite scientific method, and a philosophic motive which interprets the scientific motive.

This attitude in education as such i.e., 1) that which gives the facts and the method, and 2) a philosophy which interprets and evaluates these, come out very clearly in Plato and Aristotle. These are also handed over from the ancient to the modern world.

As I indicated, Plato conceived the scientific method, Aristotle conceived his Prolegomena—an introduction to such a method, which he formulated more definitely, in his physics and metaphysics. A demand for scientific method in philosophy is found from this time on.

What we wish to point out is that this demand for method arose out of education. The need of a certain type of training, appropriate to youth, was recognized along the same level with the philosophical training. The two went together.

This is carried over into later systems of philosophy, e.g., post-Aristotelian systems [157|158] in their training for philosophers for practical life, i.e.,

philosophy becomes a way of life in the later post-Aristotelian. The Stoics, post-Aristotelians, etc., all conceived their philosophy as practical—as a way of life. It was naturally ethical. The Epicureans attempted to point out the place of pleasure. The Stoics showed the place of reason. Aristotelians attempted the same. All these philosophers were interested in ordering their own immediate lives.

There arose out of this a definite introspection: 1) that which belongs to the skeptical movement, and in the Aristotelian school, a beginning of our perception, more psychological than logical. Also found in schools of induction—how to reach truth. And 2) it is also found in the second place in Neo-Platonism, and Neo-Pythagoreanism as an emotional phase, and the attempt to make use of the emotional experience of the individual as also a way of truth.

This movement found [its] greatest expression in the Neo-Platonists. This also carried study back into [the] self, and led to a definite technique for the production of this emotion, to get at the truth. Both of these, 1) Induction, and 2) through emotion, led to a certain type of training. They led to a certain type of technique, which had to be acquired. They led to schools which were interested in giving a certain technique and manner of life.

We find growing out of this movement Asceticism, largely in Egypt: many hermits, later monks.

It would be impossible to separate the philosophical movement of the ancient world from this training. Not referring to this training of youth alone, but to the very philosophical system itself as a training, therefore the identification of the two. The philosophical schools aimed at giving a method of life which involves training. [158|159]

So the great spiritual movement in Greece—Christianity as such was such a method of training.

The passage of the old world into the new world was of the world itself as a school in which the method not only of this, but of the new world is to be gained.

So the schools of the church made introspection prominent. There is theology which interprets the way of life, method.

Christianity as it passed from the old world to the new was essentially a method, a training—it initiates others not only in its homework but also in its missionary work, it was essentially a *way of training.* The training motive then finds it[s] roots back in this early period, and when Christianity adopts the Roman scheme, the method is still that of training. Its motive is essentially an educational motive.

The conception of the training of the adolescent period was that it was a probation period. This attitude the church took.

As we approach the more modern period, the Medieval, we find a different type of life from that which we identify with science, physical and natural

sciences. We get a motive distinctly different from Plato with his geometry, or Aristotle with his science.

The limitation of early science is one of method. The ancient world was not as inventive as we have been. They did not search the heavens. Their problem did not demand it. Problems were different. The fixed stars were fixed for the ideal of regularity. Other stars were not regular. Sometimes motion seemed to stop, again to retrograde. These problems gave the problem to ancient astronomy. Their problems were not those of science, but they thought their movement should be harmonious.

It was the problem of Aristotle to account for these anomalies of movement, to devise schemes to account for seeming stationariness and retrogression. [159|160]

The Alexandrian Philosophers brought in two conceptions: 1) the conception of the epicycle, which probably goes back to an earlier astronomer, who recognized that planets like Mercury and Venus had different positions in the heavens from other planets. So it was probable that the sun moved about the earth, but Mercury and Venus moved about the earth. So a plotting of the motion of Mercury and Venus as related to the earth gave the epicycle. The curve of such a character was a difficult problem for the ancient scientists to handle. They felt at liberty to analyze these movements without considering the physical side, i.e., without considering what physicists would have to say. So their analysis was geometrical and did not have to test itself.

The conception 2) was of the eccentric, i.e., the body that moved about the earth had its center elsewhere than at the center of the earth. They found it shifted and their problem was to account for this shifting.

The point here is that to explain these anomalies, the ancients could not get away from geometry. It applied not simply to the general assumption that the heavens were far above the earth, and that they order the seasons, etc., but also that they represent exact science—knowledge. The heavens guarantee truth, order—the highest type of truth which man could conceive. So ethical truths go back to this fundamental assumption that the heavens were incorruptible, could not be violated, but were fixed and certain. This assumption and feeling that the individual was dependent on the influence of planetary bodies has its basis here.

Over against this method of astronomy, arises modern science, which grew up in the medieval period. Galileo definitely stated this scientific method. The fundamental difference between the two could not be more sharply stated than in the problem of motion. The ancients answered it by astronomy and by [160|161] finding figures which could account for the anomalies of motion. But we find in Galileo the immediate observation of a movement while it is in progress. With him there was no prejudging of its movements, no preconception. This is the first great difference. The second in some sense, follows from this, i.e., there must be a unit in terms of which this motion could be

expressed. If the motion is studied while the motion is going on instead of the shape of the path it had previously made, then we must have some unit by which to evaluate it. For Galileo said we must handle the motion while it is going on, no matter what the state of its curves. Galileo found it possible to do this by dealing with a single "moment" in its progress. It involves the tendency of the body in motion to movement. That tendency would express itself, he said, in changes in velocities. The element of mass which is taken into account to handle this tendency was implied by Galileo, although it was not made explicit.

The laws of motion as formulated by Newton. The theories of Descartes, with his discovery of analytical geometry, arouse out of this situation. Here we have the problem of Algebra as distinct from those which may be handled by geometry. Galileo studied balls falling from the tower of Pisa, thus studying motion as it was going on. Thus we see that the problems of the modern world were very different from these of the ancient world.

Lecture 30

[Bacon, Galileo, Copernicus, Newton, and the Consciousness of Method]

We have seen that the scientific attitude is one which was essentially derived from education; that of preparing the younger generation that it may take its place in the life of the community. This was worked out by Socrates and his followers.

We turned from this to the medieval period, [161|162] where we saw the method of science introduced by Galileo and compared it to the Hellenic period. We saw that the Greeks tried to analyze motion. Motion was conceived in terms of paths and these paths were dealt with by means of geometric figures and they could not be handled if they were of such form that they could not be handled by geometry.

Over against this we saw Galileo studied motion while it was going on. He took a moving body, recognized its tendencies to move, its directions, velocities, etc. Thus he was enabled through his study of tendencies to move, to get at the law of falling bodies. It was his conception of "tendency" that helped him, and made it possible to do work in the realm of the "infinitesimal," although this was not developed until Newton accomplished it. You see that the essential point is that motion is conceived in terms of the nature and the tendencies of the body in question. It is important to note that this dealing with a body while in motion opened up the whole field of *dynamics,*

and thus constitutes the *first breaking away from the ancient world.* We have Roger Bacon, of course, four years before Galileo.[1] But his ideas were not developed and his importance has been much exaggerated. It is only when we get to Galileo that we have a definite, conscious method of scientific work. From this time on we have the development of science because of the definite consciousness of scientific method.

Galileo attracted public notice in his acceptance of the Copernican theory. He was brought before the inquisition. He attracted more attention by using the telescope to see Jupiter and the stars revolving about it. Here he had an illustration of a body revolving about another, i.e., Jupiter had satellites. The[n] why could not the earth revolve about the sun? As well as the satellite about Jupiter? [162|163] This helped Europe more than anything else except [accept] the Copernican theory (cf. Milton) but it was the method derived from the study of the falling body which gave Galileo control. Descartes, about the same time, developed analytical geometry. Newton developed astronomy. Newton followed Galileo in the study of the moon as moving in a straight line, yet continually departing from it. The law of that departure from a tangent to a curve, Newton could work out. Then Newton took this departure from a tangent to a curve and showing that this law is incidental with the law of falling bodies, he gave final proof to the method which Galileo developed. Heavenly bodies are falling to the earth the same way that the iron ball fell to earth from the tower of Pisa, so there is one law then of all falling bodies. He thus wiped out the distinction between the heavens and the earth. All were now seen to be under the laws of science.

Galileo took the body as moving and defined it in its "tendency" to move, which he called a "moment," a tendency to direction and velocity. They could exactly determine velocity and direction.

Now Newton, instead of determining mass by weight, as did Galileo, determined it by a definite system of bodies which moved according to the law of falling bodies—which moved proportionately to their masses. So with him masses were determined in terms of their movement. The masses of one planet thus modified the movement of other planets. So in terms of the movements we are able to define their masses.

The final result then of the development of thought from Galileo to Newton is that the body itself is defined in terms of motion. And this movement even from Aristotle to Newton arose out of this "*consciousness of method.*"

This consciousness of method has given us our modern world—our universities, i.e., this dealing with motion as it went on. [163|164] This conceiving of the law of change as given in the change itself, this consciousness of method, gave us our modern world. Thus we discover the law in the process of change,

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1. It is likely that Mead meant Sir Francis Bacon (1561–1626) rather than Roger Bacon (1214–1292), given that Galileo Galilei lived from 1564–1642.

and then we determine or define the object (mass) in terms of this change. We no longer define animals by fixed species, but we discover the life process and then define the life of the animal and plant in terms of this process. The ancient world had a mathematical definition for animals and plants.

Again we recognize the process of consciousness in Functional Psychology. We think of this process as having its essential laws. So we now no longer deal with memory, etc. as metaphysical entities by means of which we can hold on to our past experiences. What we now do is to find some general law of retention—best found perhaps in the conception of nerve currents, habits, etc., tendencies of currents to run in old paths, etc.; on the basis of these laws we conceive memory as an element of the very life process. We therefore speak of memory of muscle, of nerve, etc. Thus we define all our mental "faculties" in terms of the act.

It is interesting to see how universal this method of defining an object in terms of the process has become. The modern world by means of this method has made a new heaven and a new earth; it has changed the fixed objects of Aristotle for the process of evolution.

By means of this method we shall be able to deal with our social problems, by means of it we are now coming to the place where we can discover the laws of man as a social being, as part of a process.

Our modern science then depends upon this process of finding within the change "process" itself, the law of that change, and then using this law to define its objects. This has now come to prevail as the accepted method in the whole field of science. The confident approach toward a field of change [164|165] with an assurance that one may find a law in that change and by means of this law be able to define the objects themselves—this is the spirit of modern science. In comparative anatomy and physiology, e.g., we take various skulls and by comparing them find a law of change, and thus define our object. So today any scientific study 1) discovers what the changes are, 2) formulates the law of these changes and 3) defines its objects. This is the scientific method which gives confidence to the investigator.

So it was the consciousness of method which account[ed] for the flowering of the Greek mind, and which made [it] possible for Aristotle to organize ancient science. It also made possible the later philosophies, and the organization of life by Jesus in his "Kingdom of God."

Conscious method with Socrates was very simple: (1) The stating of the problem in several forms, (2) isolating the common element, (3) stating this method in the form of the universal. Then, to know was to get at this universal, for under this universal was to be subsumed all experience.

With this method, Aristotle as the encyclopedist of the ancient world, was able to classify and put the whole of the ancient world [into an order]. This method of classification is still in use in geological museums and zoological gardens.

As over against this, we have the modern, scientific method, which consists in approaching the field of changing phenomena, discovering the laws of these changes, and then defining the object in terms of these laws. A good illustration of this difference is found in the realm of economics where we *should* observe the changes, get at their laws, and then turn around and define the economic man, the laws of industry, etc. But so far it is error of method which has controlled, because the economic process is not the *whole* of man; the method is used unfairly here because economics is dealt with as abstracted from life. [165|166]

LECTURE 31

[The Social Character of the Reflective Process]

Somewhat earlier in the course we treated the social character of the reflective process. We have seen that our reflection involves consciousness of meaning of the stimulus, which is in some sense abstracted from the stimulus itself, e.g., we recognize the consciousness of meaning of a tree quite apart from its specific form or color. This consciousness of meaning arises only in intercourse with others, only in gesture or language. The term which should recall all this, is "attitude."

Attitude is both identified with meaning on the one side, and with gesture on the other. The meaning of an object is our attitude toward it. As a rule the attitude makes itself evident as a consciousness of readiness to act, e.g., we may ask a boy what a spade is, and he answers that it is that with which one digs in the garden. He gives in his answer that feeling of readiness to act.

We can analyze the attitude and see what is involved in it. As a rule, the attitude toward simple things is very complex; we cannot express it, yet we do have this consciousness of readiness to respond. Yet we know a scientific conception has a value although it consists in abstracting a certain group of feelings, and using them alone. On the one hand attitude is the meaning of the object, and also the beginning of the act.

Before one can begin to jump, etc. [one][1] must take the appropriate attitude—there is this preparation which precedes the complete act. It implies the different elements in the act, i.e., it gets ready for them. The positions of

1. "he" in original typescript.

the body, the action of the semicircular canal enter into our attitude when at the edge of a precipice. This shows us that we are continually acting. The whole situation varies with that which is to take place. If one sits down to play a piece of difficult music he has a feeling of readiness [166|167] which reveals itself in all the intricacies of the performance, and if we could see the nervous system in detail, we would see how all these connections were made before the act begins. So in beginning a difficult task one has this feeling of readiness. We want to bring out that consciousness of attitude which involves the beginning of an act. It is the preparation for the act, e.g., [a] politician is going to make a speech, he reflects on the temper of the party, how certain arguments are to be brought in, and how to gradually lead up to a difficult situation. This is the getting ready, etc. And this is but the working out reflectively of what takes place emotionally in all acts. The second point then is that the attitude is the beginning of the act, and involves a consciousness of what the act is to be.

Also the attitude is the gesture, i.e., it is that phase in the act which is significant to other forms (not conversational gesture, but expression of countenance, tones of voice, position of body, etc.); this implies social reactions, parent and child, social helpfulness, etc. The beginning of the act is the significant part of the act to other forms, e.g., dogs walking about with bristling hair, etc. If a dog is to protect himself he must adjust himself to the first indication. cf. boxers, fencers, etc. where the adjustment is instinctive. So in social life movement of eye, face, etc. cause[s] our response. So the beginning of the act is the significant part to other forms if social life is adjustment. Gesture then in this larger sense belongs to the early stages, overt stages of the act.

Thus there are two sides: 1) All is identified with the consciousness of meaning, 2) the beginning of the act, which we call gesture is the significant part to another. (Tone of voice is gesture.)

The attitude then is that which becomes not only gestures but language in its more restricted sense. See how well gesture is [167|168] suited for this: on one side it is consciousness of meaning, and on the other it is that which is significant.

So language or symbol arises perfectly naturally out of attitude. The consciousness of attitude before it is carried out becomes what we call language, hence it is significant not simply as the separate stairs in a flight have significance, each one calling out the appropriate response without reflection. For, on the one side conscious attitude has "meaning," on the other it has the giving to another. No matter what language, deaf and dumb or articulate speech, it always has the same beginning. On one side it has "meaning," on the other the significance of the beginning of the act. We can not *do* a thing and at the same time get a consciousness of meaning. To get meaning we have to for a time inhibit all reaction to the object. Such a truncated act has value only in so far as it has itself become important for some reason.

In the social group the child's cry and the mother's answer come to have enormous importance in the group. Now the beginnings are not simply beginnings of something inhibited and stopped, but they are actual significations of what was to come.

All language, then, is inhibition of the act with the overt indication of the attitude which that act involved, and the use of this overt indication is a social stimulus. The overt indication may be highly symbolized as in language.

Language is then social in character and depends upon social stimulation. We are able to bring out consciousness of meaning because of the significant phases of the act[,] i.e., significant to other people. Our thinking is always conversing; you get the meaning of a word in terms of your response to it.

The application of this is found in the point which we have reached in determining the value of this analysis to scientific—[168|169] method and education. What is the nature of this? Go back to impulse, e.g., the fighting impulse. We can readily see that out of the attitude of attack and defense can be built up the language of the military dance and military march. As herding animals, social[,] we get out of the consciousness of cooperative attitudes the language which first expresses itself in the dance, in hunting or agriculture dance. When this develops and language is more sophisticated as in poetry, we can get the whole situation by listening to some martial poem.

The[n] we have all the relations of sexes and religions which come from this, and finally the parental attitude which has such value and which we are just getting hold of. See McDougal who identifies the attitude of tenderness with the parental attitude, and shows how love grows out of this expressing itself in the care of the world for the aged, feeble, sick and injured.[2] This attitude is fundamental and goes back for its earliest expression to the parental attitude. It arises astonishingly early in life, e.g., very early the little girl has it for her doll. We have the feeling for the little baby pony, or kitten; for the little tree. The poetry of nature is all shot through with this appreciation of beginnings which are to be protected.

What I want to bring out is the relationship of this widespread, parental attitude to thought. There is a school in Germany who believe that out of the rhythm of work grew thought, but out of rhythms you get no explanation, no abstraction, no simplification. In playing football, and in boat rowing, and when men are working together, it is the *beginning* which guides all action. We do not have explanation here as we do in talking to the child. Here we are explaining the world to the child. This is what we do in speech. We are constantly explaining and it involves on our own part a *continual analysis* of our [169|170] ideas. The mechanic may not be able to explain to his apprentice, but he who can always has this power of explanation, of analysis. This

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2. Possibly: William F. R. S. McDougall, (1871–1938), *An introduction to social psychology* (London: Methuen and Company, 1908).

has arisen in the development of thought from the parental attitude. We do not simply make use of abstraction but the abstraction itself arises out of this process. The parental attitude of thought is thus to be found wherever there is explanation.

LECTURE 32

[Education, Explanation, and Science]

We have identified the explanatory process with the impulse that belongs to the parental instinct, in its largest sense. That instinct which puts us in the attitude of assistance not only toward children but to all who appeal to us, aged, crippled, etc. and our instinctive reaction toward these is the same as toward children.

We have seen that out of cooperative operations, as in war, labor, where in* association with persons of same age will arise different types of thought, but none of them takes the form of explanation or analysis. This latter develops only in the child-parent relation or similar situations. Processes of labor, dancing, etc. we can account for by other types of instinct. But all which *explains* belong[s] to the attitude toward the child form. So storytelling, mythology, development of cult to myth and giving of adult to younger generation.

The best explanation of myth and mythology is that it is a part of education. Science grows out of this. Education and explanation are essential to each other. We have seen that explanation gives analysis and this gives us a chance to construct a new situation in the process before us. Analysis involves the sensuous whole. The perception that gives us a cue for reaction does not give us a content to be analyzed. e.g. One sees a hammer, reaches for it, it is not there, the perception that caused him to reach for [170|171] it, will not be used in the explanation of why he did not get it. Now the whole must be constructed to *explain* other elements come in beside the cue. We cannot analyze the cue. That complete sensuous whole, we call the *aesthetic content.* It is to this field that art belongs. The complete sensuous whole is what we

analyze. e.g. The comet's tail was in the east instead of in the west where it ought to have been. Astronomers built up a whole to explain.

An illustration is Darwin's study of the earthworm.[1] The English farmer assumed that heavier dressing would push its way down into the soil, for a boulder being heavy, pushes its way through. Darwin of course as a farmer made the same judgment, for he saw only heavier material on lighter. But at the same time he was studying earthworms and their number. It occurred to him that with* marl, instead of sinking through the soil, the earthworm threw the soil about the marl. Now the presentation of the farmer was a working image, but the presentation of the latter judgment grew out of the *whole situation,* a sensuous whole capable of being analyzed. The scientist gets a content which is essentially different from the mere cue, it is an aesthetic object. So it has in it then, not only the element which calls out one reaction, but involves different numbers of reactions. All from Darwin's experience on the case.

Out of such a situation science arises. So the cult changes as one attempts to adjust to injure a man at a distance. Here a picture of the whole enters. The attitude of analysis itself arises out of this conflict between these different elements. What is it that can be studied in this illustration we have used? Not simply the casting of the earth worm or the dressing of the farmer. What Darwin studied was the disappearing of the marl at a certain rate. First, [171|172] he studied several fields and found how quickly marl disappeared. Then he took several square yards and measured the amount of earth brought up by earth worms. Then he compared his results. So his study of the disappearance of the marl is [an] abstraction with many elements. And that abstraction results from the two conflicting ways of explaining the phenomenon. If you do not regard marl as pushing its way through, then all that is left is[2] a change of position in the soil, due to some cause.

We wish to make it evident that the process of abstraction is not an artificial operation, not one of cutting up the content as with a knife. The content for abstraction is that which is left over after opposing concepts have destroyed one another. After they negate each other there is a content left, e.g., there is a dressing which disappears in the soil. The process of pushing down, and the change in place of soil, negate each other. But after this negation there is still a residuum, and this residuum is the content for science.

Take another illustration in Galileo's conception of movement in contrast to the conception of Aristotle. For Aristotle every body had a movement peculiar to itself; solid bodies move toward the center of the universe, gaseous bodies moved away from the center. So fire, which was the thinnest body on the periphery. [B]ut all had certain qualit[ies], i.e. for Aristotle movement

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1. Charles Darwin, *The formation of vegetable mould, through the action of worms* (s.l.: Murray, [1881] 1904)

2. "in" in original typescript.

was a quality of the object itself. So the heavier the body the more tendency it has to fall toward the center. It follows that the heavier the body the greater its speed.

But when Galileo let balls drop from the tower of Pisa, his impression was that they did not fall according to their weights as Aristotle supposed. Galileo experimented with this contradiction in mind, and what [172|173] was left over—the residuum, became content for Galileo's investigation for his science, e.g. a common ball of ten pounds and five pounds did not differ as to speed at all, and they negate each other, but out of this is left "a falling body"—a body in motion the velocity of which is to be determined. We note that this problem arose out of the conflict between the accepted doctrine and what he saw. What was left over was his content for science. He let balls roll down an inclined plane. They had no clocks as yet for they grew out of Galileo's study of the swinging pendulum. What he was studying was "the simple question of a velocity." No one had ever studied this before. And he established the law of "falling bodies."

Now take the great generalization of Newton which has been associated with the falling apple. He had a great problem. He was willing to regard the moon, not as a body in a sphere of its own, but as always falling toward the earth. The greatness of his work here lay in his power of stripping the moon of all its qualities except that falling from a tangent at a rate proportionate to the fall toward the earth, varying directly as the mass and the square of the distance. His experiment was very complicated.

The process of scientific work is dependent on the isolation of this element and that, involving the conflict of the old thought and the new experience. So the residuum after the negation of conflict leaves this: "At what rate does the moon fall toward the earth?" The situation which makes possible such an analysis is that of a complete sensuous whole. There must be a whole to be analyzed. So we see the abstraction arises out of a conflict and is not the result of a "faculty" of the mind. [173|174]

LECTURE 33

[The Phases of the Process of Thinking: Historical and Psychological]

We have approached education in its relation to scientific investigation, and scientific speculation from two standpoints: 1) the historical, in which we found the myth and the cult with the problem arising in the transfer of the techniques and ideas of adults to the younger generation. Here we found the function of education in its larger sense.

We saw also that out of this process of transferring these techniques has arisen science. We saw also that teaching and the development of method have gone hand in hand. The transferring of the technique has often been the starting point of a higher order of society. We have seen that out of this process of educating the politician, arose the first scientific method, i.e., Socrates sought to bring to birth ideas which were already implicit in the minds of the youth. His method was 1) a method of education, and 2) a method of thought. Thinking and training then went hand in hand. They also went together in the post-Aristotelian school. The work of the philosophers was to prepare the way into life. True it centered in the individual more than in the earlier time, nevertheless philosophy was the way of life.

In the medieval period life was definitely a training. They trained now for the new Jerusalem. And the whole process of thinking went along with the process of training.

We saw that along with the new problem of science, Galileo brought in a new method. This method was perfected by Leibniz, etc., and before one could prosper in it he must learn the new method. The method must be learned

before it could be used. So thinking, for thought and conduct have always gone along with education and training. Where they seem to develop separately, it can be shown that both belong to the process of ed[174|175]ucation, and this parallel can be traced from the very beginning. So historically, training and thinking cannot be separated.

So far as science consists in gaining a method, it involves training. A definite method is an essential part of education, e.g., such a method as Socrates gave, as Galileo gave, as Descartes endeavored to develop on another side, the method of John Stuart Mill, that of Bacon. Where science develops a method, its task first of all is training in the *use of method.* The recognition of the necessity of method, for science, shows that one is somewhat trained. The scientific consciousness of method goes with training. The two go together just as cult and myth.

This may be brought out from the logical side, in that the method has to be stated with reference to the use to be made of it. It is essentially a method of thinking, so it is not a thing that can be transferred only, but it is also a thing which one must gain for himself.

The way in which the method is to be gained is important. The statement of this on the psychological side is what we treated as the conditions for reflective thought, i.e., reflective thought arises out of a conflict between different possible ways of reacting to an object. Each way of reacting corresponds to a phase of the object. We saw this conflict between different phases of the object served to isolate what was not involved. (cf. ill. Darwin and soil—how marl disappeared.) There remains the abstract fact of the marl disappearing. This abstraction arises through the conflict of different phases of the problem. Or take another example, viz. disease. The old idea is that a certain disease is not contagious. But experience shows differently. Two ideas conflict. Still contagion is thought to be a necessary postulate. But the situation [175|176] does not involve contact. How then could contagion be possible? Perhaps there is a water course to which it is due. We see abstraction here arises from this conflict of ideas, and *other elements are brought out* aside from those which gave rise to the former explanations. The two conflicting elements negate each other and the remaining then becomes the content of abstraction. Abstraction depends upon such a conflict. The process of thinking depends upon a problem; the presentation of the whole object and the abstraction of a new element. This is the first stage of abstraction.

If we carry it on to *discovery,* then the whole field must be reorganized. For having decided upon the real importance of the earth worm, our whole thought is reorganized, and all the previous facts are brought into relation to the new situation, e.g., how does the earth worm affect the soil, etc., etc.,[1]

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1. See Charles Darwin, *The formation of vegetable mould, through the action of worms* (s.l.: Murray, [1881] 1904)

i.e., there is a testing of the new theory by bringing all the known facts into harmony with it.

This method of inference is common in the child, in naive people and primitive people, etc. What science does is to bring out the statement of the method, so that it can be applied by others. So the statement of the method is dependent upon training, upon the process of passing down to others. e.g. If one comes down in the morning and finds the room topsy turvy he makes an inference that it is due to a burglar, i.e., there is a conflict and certain things stand out. The process of course is not a novel one, it is carried on all the time unconsciously, without any thought of method. And when it is used to change social standards, then the problem must be worked out and must be stated in a method, i.e., for training, method is necessary.

Coming back to the psychological side, the formation of the hypothesis, and the [176|177] statement of the hypothesis follow upon the statement of the problem itself. You could not deduce it from the problem itself. It is the new, and must be constructed. The actual [statement] of the hypothesis, the getting of the suggestion is due to the individual: we attribute it peculiarly to him. The hypothesis as such is something which belongs to an individual consciousness. But the process of experimentation, of testing, takes it beyond individual consciousness where it must be so stated where all can use it, i.e., the process of experimentation belongs to the world at large, while the formation of the hypothesis belongs to the individual.

There are three phases then of the process of thinking: (1) the problem phase, (2) the formulation of some hypothesis by means of which the problem is to be met. This phase belongs to the individual, and (3) the phase of experimentation, of testing which belongs to the social whole.

These three phases have each had its corresponding discipline. On the one hand, we have the process of abstraction, and the generalization which results from that abstraction. A certain element is isolated as in Aristotelian philosophy and used as a type for generalization. Then there is the method of self-consciousness, the identification of the real with the individual, by Leibniz and Descartes. This subjective phase has been dealt with by modern psychology. Then there is finally the experimental method as represented in the inductive and deductive logic of Mill.[2]

All three of these different phases are dependent on the thinking process, whether the isolation of elements, the making it individual, or the testing of it.

In different periods of history, emphasis has been laid on the different phases. [177|178] In the ancient world their whole thought was to abstract and form a universal. In the modern world the subjective method has brought

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2. John Stuart Mill, *System of logic, ratiocinative and inductive* (s.l.: Longmans, Green, [1843] 1906)

us back to the individual. More definitely, however, the method today is to bring all these phases into its method. These phases are (1) the appearance of the problem, (2) the hypothesis of the individual and (3) the testing we are now seeking to make use of in logic and science.

In this method the individual must be trained, and the training must arise out of his own experience, the problem must arise there. So the statement of the method is conditioned by the experience of those who are to receive it.

If we turn this around we see what the method of education itself must be. It must arise out of problems within the child himself, for he is responsible for making his own abstractions. The bane of certain types of education has been that the abstractions did not arise from the problems of the child himself. These must spring out of the problems of the child himself. He can't take over abstractions, but the problem and the abstraction should arise out of the child's own consciousness. To start with an abstraction requires a certain degree of maturity. For a child to make use of abstractions they must have been made by himself. Moreover, some sort of solution which he recognizes as his own, is called for. Besides he must also carry out the testing, the experimentation himself. The fact is that science, as it becomes consciousness, necessarily isolates its own method, and states that method, so that youth can be trained. As a result training and scientific thought always go hand in hand. [178|179]

LECTURE 34

[Science, Education and Method: The Role of the Aesthetic Form]

The point on which we were insisting yesterday was that science, a theory of method, is essentially educational. Education is training in the method, and insofar as science becomes method, it is education. And so far as science takes on consciousness of itself it takes the form of method.

The psychological nature of this method is that it arises in a problem; then a hypothesis arises; then this passes into experimentation. These three stages are the stages in the development of any inference of a scientific character.

We have seen that this method grew into generalization with Socrates. We identify the hypothesis with the subjective which finds its method in psychology. The mere appearance of a problem, and the abstraction of the data of science, and the expression of a hypothesis as one's "own" belongs to the subjective period, to psychology. There is finally the carrying over of this into conduct, and the method of this step is that of experimental science. We laid stress because of its importance for education on the phase of the aesthetic image as distinguished from that of the working image. When a problem arises in consciousness, the different concepts of perception appear as an aesthetic whole. If you look at the biographies of scientists who have given us an account of the problems that they have had, as Darwin, Huxley, etc. you can identify the aesthetic stage in the development of their problem, e.g., the effect and its ravages. The situation itself appears as a problem. The picture of the struggle for existence which Darwin got as an aesthetic [179|180] whole. To

present a vivid picture as an aesthetic whole serves to attract public attention. This is aesthetic though it may not be presented consciously as such, e.g., the plays which today deal with the social situation are aesthetic. But it is not the function of art to give the solution. Science must do that. The function of art is to present the whole in its completeness, to show all sides, to include the entire situation—this is what makes art and this is its function.

Now it is evident that in the education of younger children the problem must appear in aesthetic form, i.e., the emphasis must be here. We say that the situation must be concrete, i.e., there must be an aesthetic whole, it must be a definite part of the child's experience, the abstraction must arise in his own thought process. The statement of the problem must be in the form of a picture, the form of a definite incident, a story, a series of events.

The justification for storytelling, for plays and games, etc. in the kindergarten in terms of a perfect definite situation comes in this, that the problem must be aesthetic, a whole. The child does not respond in the sense of judging, i.e., he does not form an aesthetic judgment or analysis. The child is interested in concrete whole. Over against this is the abstract element which arises out of the problem itself, i.e., the child sees an engine for the first time. It is heavy, bulky, yet moves fast, and the aesthetic problem grows upon him. He asks and is told that steam does it all. He accepts that as sufficient explanation, and this steam explanation, as was said, is highly abstract. He does not go into the explanation of steam, which is very abstract. The point here is that while the problem [180|181] *remains* in this aesthetic form, the elements are abstract. To go further, the physicist analyzes what is here, to the child an all-sufficient answer. It is very difficult to make steam concrete. This comes only through abstraction of science. Hegel is right: there is nothing so abstract as a sensation, i.e., a sensuous element taken out of a whole situation. It is true the idea may be very concrete in conduct. The engineer takes the abstract idea and puts it to work in experience. But the original sense element was highly abstract.

Now number and language are such abstract elements to the child. It is impossible to give concrete number to the child. Number must be abstract to him. What we seek to do is to give [number][1] where the child may use it in conduct. To the child this is the first abstract and then it becomes concrete. In college we get the tools of thought and they are abstract, but on[c]e out using them makes them concrete. They are a part of a concrete situation. Numbers in the education of the child are abstract and can't help but be so.

The great problem which we are struggling with in education is *drill.* In how far we are justified in occupying the child with this abstract material. With [the] child [number][2] is not a consciousness of ratio, but he develops a habit in the use of the multiplication table, addition, etc., and his success

1. "no." in original typescript.
2. "no." in original typescript.

depends upon the readiness with which he can manipulate these. We feel that he should get these so he can reel them off as he does his language. He should be able to read up his column of numbers with readiness and this is not dependent on his consciousness of the nature of numbers. Even our higher math, which was formerly algebra now goes back to arithmetic. The nat[181|182]ure of number is now a study of the most advanced mathematics. Of course number here is considered as to its function. But number to a little child is a separate element, is apart from his experiences, and he must deal with it by getting a habit of adding or multiplying with accuracy. Formerly that was not so much a problem of pedagogy as of school discipline, e.g., the child was expected to be able at once to give all combinations of number up to ten. Our businessmen are looking for those who can add accurately and swiftly. So it seems necessary to make these combinations often enough to get them fixed in mind. So the problem is not one of pedagogy, but one of keeping the child at his task. But we recognize today that the use of school discipline as a means of accomplishing a mental fact is always accompanied by serious waste. It has moreover a bad effect on the child's character. There is a serious question of divided attention. If the attention must be directed to a penalty in order to get the child interested, it not only involves waste but a false attitude. It is like a man who is good because of law and the courts. And this is the way of external force. So the child's interest is false if the penalty keeps him at work, and it makes it necessary for him to divert his attention from the penalty in order to give his attention to the mental problem. What happens is a swinging backward and forward, first to the penalty and then to the book.

A solution for this has been sought in making the child's study of number and language depend upon the uses to which the child is to put number and language, i.e., have the child construct a box, measure it off, etc. and get the numerical relation in actual use. But abundant proof shows that this does not give the drill necessary. [182|183] Besides a child does not come to conceive of number as a tool, as does the adult. The most profound mathematical thinking is in pure number. This is magic to the child and cannot be given to him! Number can not be presented to a child in its full meaning. There remains the necessity of getting the language of number, its vocabulary, in their earlier years just as we get a vocabulary for language work. While the child gets the correct use of language, he is quite unconscious of the judgment which lies behind it. Just so the child has to acquire the language of number. And the problem is just how to give the child this necessary amount of drill involving as it does this unfortunate division of attention.

The important thing is 1) to use number under conditions natural to the child, and 2) it is also necessary to go beyond the natural. The child can not get sufficient exercise of number in making number boxes. This is like the acquisition of language. If the child never used language except to satisfy

his needs, he never would get control of it. The child babbles all the time. So in number there must be larger exercise than mere use.

The psychological problem is, under what conditions does this exercise take place. There comes a time when the child has an interest in going through the manipulations of number. There is a situation in which the manipulation of the multiplication table itself. But we must not feel that they get the inner meaning of number.

We have used number to show the nature of the problem of education. It arises in the midst of abstract elements, and the inability as yet to deal with it theoretically. It is exactly parallel to the Greek situation. [183|184]

LECTURE 35

[The Aesthetic Form and Scientific Method]

The intellectual process of reflection is no different whether we find it in the adult or the child mind. It always arises in a problem out of which an abstraction takes place, and out of the abstraction the so-called scientific data arise. The abstraction is due to the conflict, i.e., abstraction does not arise from an independent faculty of the mind, but it results from looking at the thing from many different points of view, the elimination of conflicting points of view and the isolation of what is left. The content left over after abstracting the content in dispute is the content for science. In the disappearance of the marl, the farmer took account of only part of the facts.[1] The child uses his imagination while the scientist is not satisfied until he finds all the facts, and takes account of them.

So material must be put in the form of a story for the child—an aesthetic image, while the scientist is satisfied with the bare facts. The point here is that the aesthetic image is here necessary, as distinct from the working image. The scientist uses the abstraction for further solution, but in the case of the child an abstraction does not point toward further solution. Abstraction appears among people as myth. The fairy story in the child's thinking is analogous. First something takes place as the disappearance of the moon during an eclipse; something happens in connection with it and this stands out as an element by itself. It calls for explanation. The fairy stories as explanations depend upon

1. The following sentence was deleted by hand in the typescript: "Here is the characteristic attitude of the child attitude of mind and that of scientist."

the point of view toward the moon: it may go out as a candle, for example. But we have isolated disap[184|185]pearance of the moon, and the story gathers around this. But this explanation is not complete. It goes just to the problem. It has been carried far enough however that people can and do react to it; i.e., they may tell the time to carry out certain spells, magic operations. Thus it may get into conduct. But it all remains in the form of a problem. And people of this stage cannot get the problem scientifically.

This is in accord with a certain poetic attitude, and the imaginative attitude of children. The aesthetic attitude has this advantage over the working image, that it has an emotional content. One can feel the value of it. So the myth handed down by the Greeks had an emotional value to them. So nature has emotional value to children. This is not found in scientific data. As the scientist is gathering his data, he may have an aesthetic feeling highly emotional as in fighting a disease. But the statement of it which he must give out as data has none of this. The scientist who is coldly determining the cause of disease does not have this attitude, yet he may have it back of his work.

What is lacking in the child's consciousness is the long* way of an hypothesis from data to abstraction. Instead, the child's imagination comes in and dams up further progress.

In the case of the primitive mind and that of the child, the abstraction arises out of the conflict; but instead of these being made data the imagination clothes these elements in the form of a myth, or as spirit, and one gets almost directly to action again. We have seen this in magic.

The problem in education is the avoiding of this short cut from abstraction to imagination, and putting in its place the full process of thought. Education attempts [185|186] to bring about the full process in the child consciousness, e.g., in arithmetic or language, we select the data and insist on his getting it. The trouble is, that the data as abstractions are not the child's abstractions, for they have arisen out of no problem of his. The relation then of the data to the problem is a functional relation, e.g., data must arise out of a real problem. We cannot fill the boy's mind with facts about engineering, or facts which he can use later as an editorial writer, but the data must grow out of his own problems.

So the whole problem of education is to introduce this whole process of thought in the place of the shortcut of imagination. In an article by Dewey in *Science*[2] the complaint is raised that we have not given to the students the scientific method. Instead of going immediately from the aesthetic image to action again, we want the child and the primitive to think their way out.

The problem of education then is that of introducing a method of thought. And the problem must be the child's own. The data must grow

2. John Dewey, "Science as subject matter and as method," *Science* NS 31 (1910): 121–27.

out of this problem. Here he must get his knowledge and language, etc. The problem must be the child's own. This must not mean that the child is to be confined for his number to the box he is constructing, for the child is also becoming interested in the number process itself. This enlarges the problem and the hypothesis must come out of the child's own experience. The hypothesis involves a reorganization of experience so that experience can go on. Data arise from the conflict.

The point here is that the idea given to the child must grow out of his experience. [186|187]

This criticism is changing our methods of teaching. To find out whether the idea is an appropriate one for education, you must find out whether it is a part of the child's world.

Therefore we must know the child's world. e.g. We should follow the lumber from the very beginning in the forest, as it is cut down, taken to the mill, sawed, etc. Such a proceeding belongs to the child's interests. It is on the plane of his experience. But the statistics of the amount of lumber, etc. is not a part of the child's world, and so becomes mere discipline.

Experimentation we think of as taking place in laboratory. But whenever we think over an idea to see whether it will work, we are experimenting. Experimentation and hypothesis go along together and the experimentation must be a part of the child's consciousness.

So this is our problem, how can we introduce data, hypothesis and experimentation. We can't force the adult hypothesis, etc. on the child, but hypothesis and experimentation must be of the child's own experience. These are essentially connected with aesthetic images, entire wholes, etc.

LECTURE 36[1]

[The Stages of the Reflective Process]

I have laid definite stress on the development of the aesthetic in the reflective process because it has such an important bearing on the educative process.

We saw that we have the same abstraction process in the child as in the adult. But in the child some of the steps in the scientific process drop out.

The process of abstraction takes place in any case. It follows necessarily from the conflicting elements that there should be abstraction. [187|188] 1. Inhibition—problem—conflict—abstraction. As [a] result of abstraction data arise from* an hypothesis. This leads to a solution by way of experimentation. There follows upon this solution (scientific method) of* the problem which gives rise to new action. This is the reflective process. This reflective process then is a function of inhibition (using the term in a mathematical sense).

The problem, the conflict, the abstraction are present in all consciousness, both in the child and the adult.

The scientific data are abstract but they take on the character of the hypothesis. They are not as the abstraction of the child. Mill and others have said that data are in the mind and all the mind does is to register them. But data are always an outcome of a problem. e.g. Take the investigation of disease—the way it appears in this district and the way it appears is another, i.e., not all the material was data, not just facts which anyone can see, but data is something peculiar which is there.

1. "June 8" in original typescript.

The problem is a negative statement of the solution, i.e., when the problem is stated you have a statement of the condition which the solution must meet, e.g., take the disease with which Dr. Rickets dies while investigating in the Rocky Mts. A certain kind of ticks appeared only in one district, and appeared in spring time only.[2] The process of experimentation is one of testing the data, e.g., he finds a germ in a tick and puts it in a guinea pig to see whether it will make it sick. Experimentation or observation is the process of applying the hypothesis to the solution. Thus the data are not enlarged but changed and therefore the problem itself changes.

Data, hypothesis, experimentation, [188|189] equal the scientific method.

At every stage, the data, the hypothesis, the solution, the testing must arise out of the experience of the pupil. We cannot inject facts and information into the child just to have him repeat them to us. These things must have meaning for the child, and that they may, the problem must arise out of the child's own experience.

It is true that we do have a stage when the child is interested in the action itself, i.e., in manipulating number and language for the sake of the activity itself. He makes sounds just to hear them, he likes counting for his own sake. The very process of speaking, of counting, constitute for him problems in itself. This is the time for drill, the time to go over and over [a] thing until it is fixed. The children have just learned a new process, and they wish to do it over and over again. Here then is an important point in the teaching of number or language—where what to us is but a step in the process, itself constitutes a problem for the child. Therefore this is the time for drill.

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2. Howard T. Ricketts (1871–1910): American pathologist, graduated in medicine from Northwestern University, Chicago, and in 1902 joined the faculty of the University of Chicago. In the spring of 1906 he demonstrated that Rocky Mountain spotted fever could be transmitted to a healthy animal by the bite of a certain tick. He died in 1910 in Mexico working with typhus.

Lecture 37

[Education and the Conveying of Meanings]

On the consciousness of meaning see the treatment in Royce's *Psychology.*[1] He says we get the meaning of gesture by imitating the acts of another. But this does not give us any analysis of the process of getting conscious meaning. It is not that there is a reproduction of the acts of another, but rather in our own attitude referred to another, that we get the meaning consciousness. The child's consciousness of his own response to his mother's tone, in so far as this answers his need, is what gives meaning to the mother's tone. It is our response, instinctive, etc. to another person, which gives meaning to the acts of the other. [189|190] If our response is one of favor or disdain, etc., this is what interprets the speech of the other. We cannot give a satisfactory reason for our attitude, but some call it intuition, etc., i.e., ability to size up another. What happens to one in an executive position for example, is that one takes a perfectly definite attitude toward another. Another would perhaps take longer time, in which to do this. But this getting of attitudes is the very process of getting consciousness of meaning. Education is the conveying of meanings, and it is conveying meanings in novel fields. The complex attitudes of adults are to be given, therefore we should find the correct process.

An easier way to approach the problem is that of the Herbartian school, Mill, et al. Herbart was an associationist. He assumed that knowledge is to be acquired by acquiring ideas through words. The apperceptive mass takes

1. Josiah Royce, *Outlines of Psychology: An elementary treatise with some practical applications* (New York, London; The Macmillan Company [1903] 1908).

in another idea by means of words. It assimilates another idea assuming likeness between them. The difficulty here lies in this, that this theory assumes that consciousness of meaning is already *there,* and needs only to be taken in, instead of realizing that meaning arises only through the reaction of the learner. So every new step of progress must come through some problem of the student himself, for in order to get a true reaction the problem must belong to the experience of the pupil's own experience. So the associationist's doctrine based on this assumption of fundamental likeness between ideas, overlooks this essential fact—the arising of the meaning in the reaction.

So our problem is to translate all situations over into the actions and the reactions of the pupils themselves. We would then view the language of one as called out by the language of another. Unfortunately education has been confined to the artificial process of taking language and [190|191] giving it as such to the pupils. We have not realized that this subject matter is itself a social product and the basis of social relationships.

The only social situation we have in school is the discipline of question and response. We have not realized that the material itself is the product of a social relationship.

One's mind cannot be stored with facts as our old educational practice assumed. We can store a set of verbal expressions which can be called up on demand. The thing does not constitute a fact for the child unless it has grown out of his own experience. There must be real problems. Therefore it is necessary to realize the data, facts, are a part of the child's own mental process, and when real arise out of his problems.

As to the form in which data appear in the child's mind, in contrast to the mind of the adult, that form is the aesthetic to a large degree, e.g., look into biographies, they are largely of aesthetic character, of large emotional background. Take, e.g., Pasteur. In his life disease is presented aesthetically, as [in][2] Darwin in his *Discovery of the Origin of Species.*[3] So if one would get a real problem for a Doctor's degree, it must first take with him the aesthetic form. cf. the problem play, e.g., in New York and the Greek play. The difference is that our problem is one which will pass away in solution. For the Greek the problem remained. *The problem stage is the ultimate stage for the Greek thought.*[4] It ends there. On the other hand, the modern problem play does not attempt to give a solution. It makes us feel that we as society must get a solution. [191|192]

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2. "is" in original typescript.

3. Charles Darwin, *On the origin of species by means of natural selection; or, the preservation of favoured races in the struggle for life* (London: The People's Library [1859] 1909).

4. Underlined by hand in typescript.

So we note in the first place 1) that it is [in] this aesthetic form that the problem must be presented to children. The material must be concrete, direct, and we say it must have interest, i.e., be simple, sensuous, etc. 2) The solution must come from the child's experience, must answer to his own world. The child's world is not minutely worked out. The child does not appreciate the real nature of number, e.g., the data of the child's consciousness must take the aesthetic form, i.e., it must be what we call facts and information.

The way the problem always arises in consciousness is in the aesthetic form. The hypothesis as it answers to the aesthetic form is given in the form of a story, myth, in primitive consciousness as is shown by their giving the history of the world in story form. This reflects an attitude of reverence, of worship, in the child. This naturally follows the hypothesis of the aesthetic stage. So with primitive peoples we have the myth, and in place of experimentation, we have a reaction of an emotional character.

Then passing from this stage toward that in which we have the scientific form of thinking, we take up the life-history of the materials used in the textile industries, of lumber, of insects, and this takes the place of the story. We may use literature in the interpretation of such industries. This is the form in which science can be presented to the child in the elementary school. In the secondary school we can be more definitely scientific. Take for example the test of the child with sugar:

Scientific Form of Thinking

Elementary	In early years the child is interested in the manipulation necessary to make the test, and in his success in making it. He may be interested in repeating [192|193] the test again and again. So we see that this is the time for drill in arithmetic, etc.
Secondary	Later he asks what it is that makes this a test. He wished to know the chemistry of it. Why do these changes occur in the case of sugar? He now wants an hypothesis, which he can test, and then go on further in the use of it.

The psychologicaI legitimacy of the culture epoch theory is found in the fact that data do appear in aesthetic form, in the case of younger children. This is the way of growth as we saw in the case of the Greeks. Every problem always takes on the aesthetic form in its first appearance. And the problem for the child must arise out of a like social situation.

The Herbartians generally take apperception from the intellectual side only, without realizing the social nature and basis of instruction. So they may compare twelve eggs with the twelve tribes of Israel and be consistent. But this is not taking into account the full reaction of the child. Wherever this is done we have no quarrel with the doctrine of apperception.

It is rather interesting to note that the Herbartian system has persisted in education and philology, while in other fields it is wholly given up. In both these instances the Herbartian theory represents reversion to an ancient type of psychology.

Our whole modern movement is based on the development of another type of psychology—that which has to do with attention, and insists that *reaction itself* reconstructs the content of that reaction. This [193|194] is what we[5] to recognize in the teaching of language, that is, that language is a social process, and in such social process alone can the child construct the meanings which he acquires. Herbart assumed that meaning was already there, and only needed to be assimilated by the child. But only the *attitude* of the child toward another can give the meaning of that other.

There are other important phases of education, other problems which we still sidestep, and these will involve a much more intimate relation between teacher and pupil; a teaching of what life means, of what the child is going [to] stand for. The child does not simply take the attitude of the drama toward life, the aesthetic attitude. He needs to take the place of the farmer, etc. It is through his own response as a member of various social groups, the gang, the home, the school, that he is to discover the meaning of the ultimate values of life.

In any case, whether it comes in terms of the child's own response, or through story—meaning comes only in terms of the child's own response; he must be a part of it. The situation is a social one.

How may the child get the meaning of his civic situation? There is a recent study of a colony which came from New York to Illinois which show[s] how they work—shows the way it has to be done. Professor Mead thinks that with children, as well as with college students the most important material to begin with, is the study of primitive peoples. There is more altruism to be found there. They stand by each other in all ways and places, etc. This material should be presented without emphasizing the barbarities of primitive life but with stress on its social side, i.e., the meaning of marriage; the relation between parents and children; [194|195] the work of the children; the rites of initiation; the attitude toward property, etc. There is need of a presentation of this material in a number of simple situations. Then if the development of these could be traced historically so as to show how these social ideals were obtained, down to the complex life it would be helpful. If this presentation were brought down to date the child would have human values. The child lacks ideals now, the only values he gets today are the competitive ideals of the school—school standards set by themselves. The subject matter is almost wholly aside from the values of life. If the child could get some of these values

5. The word "to" has been deleted.

as he passes through life, and have these ideals with which to interpret life as he comes to it, it would be a great advance.

Such a treatment of adolescence as Hall gives in his book is almost pathological, instead of getting at this natural relation of the child to others.[6]

As you go to your work in education take the conception of language and treat its problems in terms of a social process.

Then let us hope that we may get at the historical development of moral, civic, and social ideals.

Let us keep in mind the value of the aesthetic image in this work of training youth.

On the logical side, Dewey's *School and Society* presents the problem in concrete form.[7]

On the language side, see Judd's chapter on Language which is essentially Wundtian;[8] Royce's *Outlines of Psychology,* and his *Studies of Good and Evil*;[9] also Baldwin's *Mental Development* and *Ethical Interpretations.*[10]

For the beginnings of Society, see Thomas' *Source Book.*[11]

In this course we have emphasized the importance of the emotional phase of human [195|196] consciousness; gesture and language as mediums of communication; and tried to get at a logical statement of the child's consciousness, for the purpose of education.

The End. [196|a]

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6. G. Stanley Hall, *Adolescence: Its Psychology and its relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion and Education* (London: Appleton and Company, [1904] 1908).

7. John Dewey, *The school and society* (Chicago: University of Chicago Press, [1899] 1900).

8. Maybe (see Lecture 3): Charles Hubbard Judd, *Psychology: General introduction* (New York: Scribner, 1907).

9. Josiah Royce: *Outlines of Psychology: An elementary treatise with some practical applications* (New York, London: The Macmillan Company, [1903] 1908); ———, *Studies of good and evil: A series of essays upon problems of philosophy and of life* (New York: D. Appleton and Company, 1898).

10. James Mark Baldwin, *Mental development in the child and race: Methods and processes,* 3rd edition (New York: Macmillan [1895] 1906); ———, *Social and ethical interpretations in mental development: A study in social psychology* (New York: Macmillan Company, 1899).

11. William I. Thomas, *Source book for social origins: Ethnological materials, psychological standpoint, classified and annotated bibliographies for the interpretation of savage society,* 6th edition (Boston: Badger, 1909).

Lecture 38

[Language, Communication, and Meaning in Education]

June 10

There are three points of view from which to approach education.

1. Early social organization of community and control of life, magic, cult and myth. This developed on one side certain values in emotional terms, and on the other side, technique assertion of these values in the cult, and found educational expression in initiation of ceremonies.
2. Language. This is a means of social intercourse, represents tools of social life so far as it can be analyzed into elements. Language presents the means of analysis.
3. Reflective process. These three phases on the consciousness, which we can approach historically, represent the most important points of view to approach Philosophy of Education. It has been recognized that emotion should have [a] place in education: But there is a gap here in our present education especially in the adolescent period.

From the point of view of language we have the medium of education. We find that meanings grow out of social intercourse, they are not there and then expressed. We have to recognize that what the child requires is not poured into a receptacle. Meaning must arise in the child's consciousness in some sort of intercourse with others. Language, the medium by which experience is analyzed and brought to consciousness. Ontogeny and phylogeny important here.

Meaning came into consciousness in the interplay of gesture. Applying this to the child, we can't possibly give a dictionary definition and expect him to get the meaning.

He must get the meaning through his own response to certain social situations. (See Royce *Psychology.*)[1] He mistakes the facts however, when he says we get the meaning by the imitation of what someone else does. It is not reproduction in ourselves of attitude of another [a|b] but reference of our own consciousness to attitude of another. When conversing with a person we find ourselves taking a guarded, a hostile, a sympathetic attitude. We are not able to say what it is in the other person that calls this out. The attitudes we take in response to other persons are the processes in getting meaning. On its formal side, education consists in conveying meanings, and those are often entirely novel, complexities of a developed civilization. It is important, then, to find the natural way.

An easier way of doing this is represented by Herbart and the English associationists.[2] Herbart assumes that education is to be gotten by means of words, and the meaning to be gotten by the apperceptive mass. The difficulty is that the doctrine assumes the meaning or likeness is there and has simply to be taken in, instead of realizing that meaning arises in the consciousness of the child in his reactions to the speech of another. Everything a child gets must come through a problem of his own. There must be a problem in the child's experience to call forth his reaction. The association theory that assumes that meaning is there, overlooks the necessity that meaning arises in the child mind. We must bring language back to the attitudes of individuals acting and reacting to each other. The subject matter itself represents a social product. The trouble with apperception is its intellectualistic character. If it takes in the full reaction of the child, then we have no great quarrel with it. Present psychology holds that the act itself constructs the content. This must be recognized in language. It is a social process and the child constructs in this social process the meaning it gets. The child by taking an attitude to another gets the [b|c] meaning of another.

When we come to some important phase of education which represents social values, there will be need of close relation between teacher and pupil, and the pupils themselves. The child's own response to home circle, school, etc. reveals to him what is valuable in life. In any case the child gets meaning only as he comes to consciousness of his response to varying situations The child gets an enormous amount of information but little appreciation of the real *human values.* The emotional side is the medium of communication.

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1. Josiah Royce, *Outlines of Psychology: An elementary treatise with some practical applications* (New York, London; The Macmillan Company [1903] 1908).

2. This topic is discussed in George Frederick Stout, "The Herbartian Psychology," *Mind* 13, no. 51 (July 1888): 321–38

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About the Editors

Gert Biesta is professor of education at the Institute of Education, University of Stirling, UK, and visiting professor for education and democratic citizenship at Örebro and Mälaradalen University, Sweden. He is editor-in-chief of *Studies in Philosophy and Education*. A major focus of his research concerns the relationships between education and democracy. His theoretical work focuses on different understandings of democracy, democratization and democratic education, with particular attention to questions about educational communication. He has taken inspiration from and has written about pragmatism (Dewey, Mead), 20th century Continental philosophy (Derrida, Levinas, Arendt, Rancière), and Continental and North American versions of critical pedagogy. He has also written about the philosophy and methodology of educational research, and the relationships between educational research, educational policy, and educational practice. His empirical research focuses on the democratic learning of young people and adults, with a particular emphasis on democratic learning in everyday settings. He has also published in the areas of vocational education and lifelong learning, democratic conceptions of the learning society, learning theories and theories of education, the professional learning of teachers, and the civic role of higher education. Recent books include *Derrida & Education* (Routledge, 2001); *Pragmatism and Educational Research*, co-edited with Denise Egéa-Kuehne (Rowman & Littlefield, 2003); *Beyond Learning: Democratic Education for a Human Future*, co-authored with Nicholas C. Burbules (Paradigm Publishers, 2006); *Improving Learning Cultures in Further Education*, co-authored with David James (Routledge, 2007); *John Dewey* (Sense Publishers, 2008); and *Derrida, Deconstruction and the Politics of Pedagogy*, co-authored with Michael Peters (Peter Lang, 2008).

Daniel Tröhler is professor of Educational Sciences at the University of Luxembourg. Recent studies include *Research on Republicanism* (*Republikanismus und Pädagogik*, Klinkhardt, 2006), *Pragmatism and Education* co-authored with Jürgen Oelkers (Sense Publishers, 2005), studies of the religious background of Early Chicago Pragmatism (Educational Theory, 56:2006), comparative research in curriculum history (JAAACS, 2006; Journal of Curriculum Studies, 2008), and the methodology of educational research (Educational Philosophy and Theory, 2007).

EDUCATION

THE PHILOSOPHY OF EDUCATION

George Herbert Mead

edited and introduced by **Gert Biesta** and **Daniel Tröhler**

Never before published, this book features George Herbert Mead's illuminating lectures on the Philosophy of Education at the University of Chicago during the early twentieth century. These lectures provide unique insight into Mead's educational thought and reveal how his early psychological writings on the social character of meaning and the social origin of reflective consciousness was central in the development of what Mead referred to as his social conception of education. The introduction to the book provides an overview of Mead's educational thought and places it against the wider social, intellectual, and historical background of modern educational concepts.

Most renowned for his work in philosophy and social psychology, **George Herbert Mead** (1863–1931) was one of the founders of American pragmatism. His collaboration with John Dewey at the University of Chicago and his wider involvement in social reform in Chicago stimulated his interest in educational theory and practice.

Gert Biesta is Professor of Education at the Institute of Education, University of Stirling, Scotland. Recent books include *Pragmatism and Educational Research* and *Beyond Learning: Democratic Education for a Human Future* (Paradigm Publishers, 2006).

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