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# *Cultural-historical Tradition in Psychology and The Rise of Communication as a New Academic Discipline*

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My goal in this paper is to trace the historical relations between two groups of scholars, both of which rejected the division of scientific labor that constituted psychology and the social sciences in the late 19th and early 20th centuries. In addition to rejecting positivist foundations of the "new" (experimental) psychology, these groups (the Soviet "cultural-historical" school and American pragmatist social philosophers) shared a belief that the process of human communication is central to the constitution of human nature. After presenting the common problem they confronted and describing the basic responses of each group, I will trace briefly the history of their attempts at institutionalization. I will arrive at the somewhat paradoxical conclusion that a likely place for the ideas of the Soviet cultural-historical school to develop is in the discipline of communication which their American counterparts initiated and that this (initially American) discipline will benefit enormously from the infusion of their Soviet counterparts ideas.

It is a peculiar characteristic of Communication that its institutionalization occurred prior to consolidation of its conceptual foundation. This has created a situation where eclecticism is a constant threat to its development as a discipline, that is, as a disciplined form of scientific discourse in which it is possible to bring data to bear on theoretical controversies in a systematic way. It is in this context that a distinctive school of psychology that arose in the Soviet Union, which sought a principled resolution of the dichotomy between natural and humane sciences becomes of special interest. But to understand the Soviet contribution, we must start further back, with the prior generation of newly institutionalized disciplinary formations.

## The New Psychology of 1880

In treaties on the history of psychology (e.g. Boring, 1950) it is routinely noted that scientific psychology traces its birth to the founding of laboratories for the experimental study of human psychological processes in the late 1870's. Pride of parenthood is most often given to Wilhelm Wundt, who opened one such laboratory in Liepzig, Germany, in 1879. Equal credit might be given to scholars in other countries ( William James, in the United States, Francis Galton in England, Vladimir Bekhterev in Russia). But I am content to adhere to the myths of the discipline and begin with Wundt because he, more than the others, formulated a clear conception of what the new, experimental, psychology could and could not be, thus setting up the problem to which the Soviet socio-historical school of psychology and the work of the "fathers" of Communication was a response in the 1920's.

According to the standard textbook explanation, what was new about the "new" psychology of the 1880's was experimentation, the study of human psychological processes in laboratory settings where ingenious "brass instruments" allowed investigators to present people with highly controlled physical stimuli (lights of precise luminance, sounds of precise loudness and pitch, etc.) and to record the magnitude and latency of their responses with split second accuracy. Less often noted (the topic received no more than a single sentence in Boring's tome on the history of psychology) was that Wundt conceived of psychology as necessarily constituted of two parts, each of which is based on a distinctive layer of human consciousness following its own laws and demanding its own methodology.

On the one hand there is the study of immediate experience based on the experimental method. The goal of this half of the discipline was to explicate the laws by which elementary sensations arise in consciousness and the universal laws by which the elements of consciousness combine. To this end subjects were carefully trained in methods of self- observation (introspection). Experiments conducted with this goal in mind concentrated on the qualities of sensory experience and the decomposition of simple reactions into their components.

On the other hand there is the study of "higher psychological functions" including processes of reasoning and the products of human language. This second branch of psychology, which Wundt called *volkerpsychologie*, could not be studied using laboratory methods of trained introspection about the contents of consciousness because the phenomena being studied extend

beyond individual human consciousness. He argued that

> A language can never be created by an individual. True, individuals have invented Esperanto and other artificial languages. Unless however, language had already existed, these inventions would have been impossible. Moreover, none of these has been able to maintain itself, and most of them owe their existence solely to elements borrowed from natural languages. (Wundt, 1921, p. 3)

According to this view, higher psychological functions had to be studied by the methods of the descriptive sciences, such as ethnography, folklore, and linguistics. The results were to be formulated as historically contingent phenomena that could be described, but not explained according to the canons of experimental science.

Wundt believed that the two enterprises supplement each other; only through a synthesis of their respective insights could a full psychology be achieved. To those who would claim that *volkerpsychologie* could be entirely subsumed under experimental psychology Wundt replied that while attempts had frequently been made to study complex mental processes using "mere" introspection,

> ...these attempts have always been unsuccessful. Individual consciousness is wholly incapable of giving us a history of the development of human thought, for it is conditioned by an earlier history concerning which it cannot of itself give us any knowledge. (Wundt, 1921, p. 3)

## Science versus history

In proposing the principled division of psychology into two sub-disciplines with complementary subject matters and methodologies, Wundt was incorporating a dichotomy between natural sciences and the humanities that arose to prominence in the 17th century and which dominated debates about the study of human nature all during the formative period of psychology as a scientific discipline.

Berlin (1981) contrasts the assumptions of the natural science and historical/cultural approaches to human nature in terms of three issues. According

to the assumptions of natural science (1) any real question has a single true answer; unless this is so, there is some confusion in the posing of the question or the logic used in arriving at an answer. (2) The method of arriving at the answers to genuine problems is rational in character and universally applicable. (3) Solutions to genuine problems are true universally, for all people at all time in all places.

By these criteria the phenomena that Wundt referred to as higher psychological functions must be considered non-scientific in principle because how they are understood depends upon the particular assumptions and point of view of the culture in question and each culture is an historically contingent way of life. Such understanding also seems to require a process of empathic understanding which is not the product of universally applicable rational problem solving. Also essential to distinguishing the two ways of knowing is history's fascination with the unique instance, the individual case in strong contrast with natural science's reliance on the analysis of repeated phenomena.

## The path of science

The contrast between scientific and historical knowledge can be traced back into antiquity, but for purposes of the current argument, it is convenient to begin with Descartes' *Discourse on Method*, published in the middle of the 17th century, because the links from Descartes to modern psychology are well known. Descartes argued that true science is based on axiomatic premises from which irrefutable conclusions can be deduced by the application of reason. By quantifying the measurable properties of matter in motion, the world and its contents could be understood in terms of mathematical laws.

Experimentation was seen as an essential adjunct to quantification and rigorous deduction. Newton formulated the ideal sequence:

> The best and safest method of philosophizing seems to be first, to inquire diligently into the properties of things and to establish these properties by experiments, and to proceed later to hypotheses for the explanation of things themselves.
> (Quoted in Shotter, 1975, p.76)

Descartes' prescriptions were based on an idealized form of the methods

used in pathbreaking work by 17th century physicists Kepler, Galileo, and Newton, each of whom had discovered physical principles which became the hallmarks of natural law. Natural laws were those which held for all times and all places. Knowing the location of an object at time n, it was possible to determine its location at any arbitrarily chosen time in the past or the future. It was Descarte's belief that natural scientific methods, so conceived, could be applied far beyond the realm of physics. Of special relevance to psychology was his claim that organic life, including the operations of the human body fit within the domain of natural science, but the study of the human mind/soul (l'ame) did not. Hence, only that part of human nature shared with other animals (who have no souls) could be a part of natural science; uniquely human characteristics could not.

Descartes clearly excluded phenomena which were contingent on specific historical circumstances from "true" science, He had little use for the study of the humanities in general and history in particular because they did not yield precise definitions, quantifiable data, axioms, or clear rules of evidence, all of which were necessary to the deduction of general laws. He and his followers ridiculed the historical research of the times as "a tissue of idle gossip and travellers' tales, suitable only for whiling away an idle hour" (Berlin, 1981, p.134).

In part this extremely negative attitude toward historical research was a reaction against the discredited historiography of the times. World history was divided into periods based on the Holy Scriptures, the most recent of which began with the crucifixion of Christ. According to this scheme, no basic differences existed between the way of life of the apostles and the world of the 17th century. Such a simplistic account lost its credibility for post-Renaissance scholars who had become acquainted with the writings of Greece and Rome, who were constantly bombarded with new scientific and technological innovations as well as information of the strange people living in Asia, Africa, and the Americas. As Berlin comments, the inferiority of historical research to the natural sciences must have seemed obvious.

However, it would be a mistake to attribute the split between natural science and humanities entirely to the special character of the latter at the time when the natural sciences began to blossom. The issue of historical laws is inextricably mixed together with the issue of the distinctiveness of human nature, particularly that part of human nature which Descartes excluded from scientific inquiry, the human mind. Only that part of human nature shared with other, "mindless/ souless," animals fell within the realm

of natural science. History is, in part, the product of human minds; other animals do not have a history in the same sense as do human beings. We, like other creatures, are subject laws of phylogeny and ontogeny, but in addition, as a result of the capacity to communicate experiences between generations, a capacity constitutive of "mind/soul" are the products of history in a way different from other creatures. According to this line of reasoning, history falls outside the realm of science precisely because human minds have played a role in it.

In the two centuries following Descartes' scholars writing in the tradition of the European Englightenment accepted his characterization of the nature of science, but rejected his view that the study of the mind falls outside the realm of science, claiming instead that scientific methodology could be applied to the study of history and mental phenomena (which they held to be intimately related). In his *Sketch for a Historical Picture of the Progress of the Human Mind* (1822), for example, Condorcet not only proposed laws to account for past historical epoches, but claimed that the uniformity of nature is so great that it would be possible to predict the future. "If man is able to predict with almost complete certainty the phenomenon whose laws are known," he wrote, "why regard it as a chimerical enterprise to foretell the future destiny of the species?" (Condorcet, 1822, p. 262).

Wundt's successors in psychology have, by and large, adopted the enlightenment view. Disregarding Wundt, they have extended experimental/scientific methods far beyond the limits he would have sanctioned to include both higher and lower psychological functions, problem solving a- well as sensation and perception. They have assumed that the laws derived are universal and in that sense timeless; they are not historically contingent.

## The Path of History and Culture

The leading opponent of Descartes' vision of science and the champion of a distinctive historical science was Giambattista Vico (1668-1744), a Neapolitan monk. In his *Scienza Nuova* (*The New Science*) Vico accepts the qualitative distinctiveness of human nature and human history but draws very different lessons from it than Descartes. His "new science" denies the applicability of natural science models to *human* nature and declares the scientific study of human nature to require the use of specifically human forms of interaction and understanding as its basis.

In Vico's view, there is an unbridgeable gap between the man-made and

the natural, between that which human beings have constructed and what is given in nature. Not only works of art and laws, but history itself falls into the category of the humanly constructed. Up to this point Descartes might well be in agreement. Where Vico differs radically from Descartes and those of Descartes' heirs who sought a unified science based on the model of the physical sciences was in claiming that precisely because they were constructed by human beings, the products of human activity, such art and law, and history itself, can be understood better than the physical world which is unalterably "other" and ultimately unknowable. Isaiah Berlin summarizes Vico's argument as follows:

> If anthropomorphism was falsely to endow the inanimate world with human minds and will, there was presumably a world which it was proper to endow with precisely these attributes, namely, the world of man. Consequently, a natural science of men treated as purely natural entities, on a par with rivers and plants and stones, rested on a cardinal error. With regard to ourselves we were privileged observers with in "inside" view: to ignore it in favor of the ideal of a unified science of all there is, a single, universal method of investigation, was to insist on wilful ignorance ... (Berlin, 1981, p. 96)

In terms that anticipate Wundt's specification of the methods of *volkerpsychologie*, Vico suggested that human nature must necessarily be understood through an historical analysis of language, myth and ritual. His "new science," he believed, could arrive at a universal set of principles of human nature because even societies which had no contact with each other confronted the same problems of existence.

## Psychology between Science and History

There is much more to be said about the development of Vico's ideas during the 18th and 19th centuries, but to do so would be to carry us too far afield. Suffice it to say that in the hands of such monumental thinkers as Herder, Von Humboldt, Hegel, and many others, the historicist tradition developed along side of, and in dialogue with the natural science tradition. However, once psychology began to be institutionalized as a social science discipline, it did so in institutional and intellectual isolation from the main-

stream academic Psychology.

Prior to the work of Wundt, a variety of attempts were made during the 19th century to formulate a scholarly discipline called psychology that reconciled the conflicting claims of natural science and human science. Owing to the increasing prestige of the natural sciences, more often than not the proposed reconciliations contained suggestions for how scientific status could be extended to the study of the processes and products of mental life. Simultaneously the importance of historical studies for understanding contemporary mind gained wide acceptance. Both of these movements had an important impact on Wundt's formulation of a dual psychology.

Two influential programmatic statements outlining how Psychology should constitute itself as a discipline, by John Stuart Mill and Wilhelm Dilthey, illustrate the ways in which 19th century scholars attempted to resolve the conflicting demands of science and history.

## John Stuart Mill

In Chapters 3 and 4 of his *A System of Logic* (1843) John Stuart Mill argued that contrary to received opinion, thoughts, feelings and actions could indeed be the subject of scientific study. He likened the laws of psychology to the laws of "Tidology," or the study of tides. In the case of tides, general laws are known concerning gravity and the action of the sun and moon, from which the local tides in any given locale may be deduced. But the specific laws so derived will be only approximate, since additional factors such as wind and the configuration of the ocean bottom will determine the precise outcome in individual cases. An analogous situation, he claimed, applied to psychology.

In psychology the laws concern the "uniformities of succession" by which one mental state is followed by another. Mill believed the laws of association (e.g., when two ideas have occurred frequently together one will evoke the other in the future; the greater the intensity of two co-occurring ideas, the more likely they are to evoke each other) represent elementary psychological laws analogous to the laws of gravity and the attraction of bodies in physics. Following in Newton's footsteps, Mill states that these laws

> have been ascertained by the ordinary methods of experimental inquiry; nor could they have been ascertained in any other matter (Mill, 1948, p. 173; orig. 1843).

Trouble sets in, however, in moving from the demonstration of presumably elementary laws of mind to the prediction of actual behavior. Two difficulties are especially important. First, the whole is not equivalent to the sum of its parts; while complex ideas may be generated by simple laws, in the act of combining, "the effect of the concurring causes is not always precisely the sum of those causes when separate." Mill referred to these as cases of "mental chemistry."Second, the outcome obtained from the combination of elementary laws is not universal and timeless. Rather, the actual combinations of elementary laws depended upon the specific conditions of their combining.

> The actions of individuals could not be predicted with scientific accuracy, were it only because we cannot forsee the whole of the circumstances in which those individuals will be placed.(p. 170)

Mill used the term "character" to refer to the emergent combination of the action of universal laws of elementary thought and individual/historical circumstances. The study of character, he wrote, should be "the principal object of scientific inquiry into human nature." Neither deduction nor experimentation, ("the only two modes in which laws of nature can be ascertained") can be applied to the study of character. Deduction fails because character is an emergent phenomenon, not reducible to its antecedents. Experimentation is both impossible and inadequate. It is impossible because "no one but an Oriental despot" would have the power to gain total control over a person's experiences from birth. It is inadequate because and even if total control were attempted, it would be insufficient to prevent undetected experiences from sneaking in and generating emergent combinations that would forever pollute later analyses.

Mill's solution was the creation of a dual science.

> ...we employ the name Psychology for the science of the elementary laws of mind, Ethology [from the Greek word ethos, "character"-MC] will serve for the ulterior science which determines the kind of character produced in conformity to those general laws (pp. 176-77).

This dual science required a dual methodology, which Mill promptly supplied. Psychology would be based on experimentation and deduction to

yield elementary mental laws. Character formation would be based on "approximate generalizations" from the elements to the whole. He adds that there is a close link between Ethology and education; even in the absence of precise causal knowledge, it should be possible, he suggests, to shape the circumstances in which individuals or nations develop "in a manner much more favorable to the ends we desire than the shape which they would of themselves assume." (p. 177). Hence, the domain of education, whether of individuals or nations, could provide a testing ground for what he called "the exact science of human nature."

## Wilhelm Dilthey

A quite different program for psychology was developed by the philosopher of history, Wilhelm Dilthey (1923-1988) whose work influenced not only Wundt, but a vast range of scholarship in what came to be distinguished as the humanities and social sciences. Dilthey's lifetime project was to forge a reconciliation between the two competing approaches to human nature that I have traced back to Vico and Descartes. He referred to "two great systems of thought," *naturwissenschaft* which formulates systems of laws which have unconditional validity and *geisteswissenshaft*, a system of "value-laden and meaningful existence" (or "world-view") which is historically contingent. Psychology, he believed, should be a special science of the mind which would serve as the foundation science (*grundeswissneschaft*) for all of the human sciences (philosophy, linguistics, history, law, art, literature, etc). Without such a foundation science, he claimed, the human sciences could not be a true system (Ermarth, 1978).

Early in his career, Dilthey considered the possibility that Wundt's experimental psychology might provide such a foundation science. However, he gradually came to reject this possibility because he felt that in attempting to satisfy the requirements of the naturwissenshaften to formulate cause-effect laws between mental elements, psychologists had stripped mental processes of the real-life relationships between people that gave the elements their meaning. He did not mince words in his attack on the academic psychology of the late 19th century:

> Contemporary psychology is an expanded doctrine of sensation and association. The fundamental power of mental life falls outside the scope of psychology. Psychology has become only a

> doctrine of the forms of psychic processes; thus it grasps only a part of that which we actually experience as mental life. (Quoted in Ermarth, 1978, p. 148)

Not only was "scientific" psychology closed to Dilthey, but so were its most obvious alternatives. On the one hand, he rejected the attractive compromise according to which the study of the mechanics of elementary processes could serve as a basis for *geisteswissenshaften* nor would he accept Wundt's dual solution since he denied the validity of its experimental half, leaving *volkerpsychologie* without a grounding in individual consciousness.

Dilthey's solution was to propose a completely different approach to the study of psychology, which harks back directly to Vico's prescriptions for the study of human nature as an historically contingent phenomenon. Psychology, he wrote, "must be subordinated to a developmental-historical approach which grasps mental processes in their coherence" (Quoted in Ermarth, 1978, p. 183). He called this approach, *descriptive psychology,* which was to be based on an analysis of real-life mental processes in real-life situations that include the reciprocal processes between people as well as the thoughts within individuals. As methods for carrying out this kind of analysis, Dilthey suggested the close study of the writings of such "life-philosophers" as Augustine, Montaigne, and Pascal because the contained a deep understanding of full experiential reality and disciplined application of empathetic understanding ("verstehen") in which analysts place themselves in the concrete life situation of the person being analyzed.

Although differing from Wundt in important respects, Dilthey's thinking about the relation of individual thought to its socio-historical context was similar to the supra-individual half of Wundt's system. In terms that have a very modern ring he defined culture as "the distilled summation of component and mental contents and the mental activities to which these contents are related" (In Ermarth, 1978, p. 123). Like Wundt he denied the possibility of explaining cultural phenomena on the basis of universal psychological laws of the individual mind.

## Western European and American Reactions to Kundt's Dual Psychology

Although there was widespread acceptance of the idea that Psychology should become a scientific discipline, freeing itself from the "yolk" of

speculative philosophy, Wundt's methodological and theoretical claims came in for criticism almost immediately. On the one hand, the experimental half of his program was criticized as unscientific because of its reliance on introspection, which, it was argued, could not yield objective, verifiable data with which to put theories to empirical test. On the other hand, he was criticized for atomism in his experimental work because he believed that sensations could be reduced to their elements and still be studied in a meaningful way.

The methodological criticism was given added force when it turned out that subjects trained in different laboratories reported different phenomena within the same experimental settings. As a consequence, introspection either disappeared as an accepted method of psychological research or introspective reports were treated as a kind of objective response: verbal reports elicited under such and such conditions.

This latter approach was adopted by a wide variety of "objective" psychologists led by John B. Watson and the behaviorist movement in the United States. The behaviorists, of course, did not object to Wundt's atomism. Instead of restricting atomistic explanations to elementary psychological functions, they totalized Wundt's experimental approach in the form of associative connections that could be studied by the (objective) means of conditioned reflex methodologies, adapted from the work of Pavlov and Bekhterev in Russia. According to this view, there was no insuperable barrier to studying complex human behavior experimentally since complex behaviors were simply systems of reflexes, the basic operational principles of which could be studied in lower animals as well as man.

Wundt was rejected for different reasons by Gestalt psychologists. The leaders of this approach objected strongly to the notion that mind could be reduced to elements, arguing instead that certain basic properties of mind (determining tendencies, or "set" for example) were fundamentally irreducible, and that these wholistic properties, which they attributed to properties of the human brain, had to be the starting point for creating a unified science.

For present purposes, the major fact to note about the way in which Wundt's proposals were rejected is that whether the objections came from the atomistic Americans who wanted to reduce mind to connections between events in the environment or the wholistic Germans who wanted to reduce mind to properties of the human brain, the second half of Wundt's program, *volkerpsychologie,* was abandoned as irrelevant by mainstream psychologies. Psychology became an a historical social science, assigned the

job of explaining the process by which environmental variations were transformed into behavioral variations within individual human beings. It is also worth noting, in light of the ensuing description of the rise of Communication as a discipline, that there were extra- scientific currents in late 19th century industrializing societies which mitigated against the adoption of Wundt's psychological system. Whether one focused on the introspections of trained observers or cultural-philological studies of the products of human culture, there was no clear way in which psychological research carried out in these ways could be applied to practical problems in society. But applied problems, no less than theoretical ones, were on the social agenda.

The very same technological innovations that made it possible to measure human behavior in tiny intervals of time and to present artificial light stimuli with great accuracy were associated with new modes of production. These new modes of production required trained workers not only on shop floors, but in offices and research laboratories as well. In addition, the urbanization that accompanied industrialization and the spread of universal schooling created a wide range of problems of adjustment. In all of these settings, Society began to look to Psychology for practical answers.

In these circumstances, perhaps the majority of actual psychological research was conducted in a manner that gave scarce attention to the weighty methodological arguments of the academic psychologists. Instead psychologists found themselves giving questionnaires to workers and school children, measuring fatigue with dynamometers, selecting the more able with brief tests, and so on. The methods used possessed at least a surface appearance of objectivity that fit with the behaviorist ethos in the United States, creating a melange of practices that were broadly functionalist in their orientation and very focused on the technology of obtaining data.

## The Soviet Cultural-historical School of Psychology

Even this abbreviated characterization of the emerging discipline of psychology as a discipline makes it clear that it was born as part of a larger division of scientific labor which drove a conceptual and methodological wedge between the social sciences, the humanities, and the arts, e.g., those intellectual pursuits which had previously constituted the humane sciences. It is in this context that I want to consider the proposals of the founders of the Soviet cultural-historical school of psychology. I seek to warrant two claims: first, that these scholars' formulation of a science of the mind consti-

tuted a genuine rapprochement between the demands of history and science, as these enterprises were contrasted in the 19th century; and second, that the form of their solution is particularly significant as a potential unifying perspective for the new discipline of Communication.

## Early History

Like Wundt's German successors, with whom they had extensive contacts, the founders of the cultural-historical approach to psychology criticized him both for the atomistic reductionism of his experimental approach and for his acceptance of introspection as an adequate source of data about the workings of mind. However, unlike the other schools which formed in opposition to Wundt's program for scientific psychology, the Soviet theorists took seriously the need to acknowledge the existence of principled differences between *geisteswissenshaften* and *naturwissenshaften* which Wundt's strategy of a dual psychology was intended to resolve. Instead of attempting to resolve the dichotomy between the two ways of knowing by allowing them to live side by side in the same discipline (as Wundt suggested) or by subordinating one principle to the other (such as the behaviorists and Gestalt psychologists sought to do, each in their own ways) the cultural-historical theorists sought a new synthesis that would combine the conflicting principles in a single, synthetic science.

While remaining firmly committed to a Darwinian theory of human phyologeny, the Soviet cultural-historical theorists emphasized the qualitative discontinuity between homo sapiens and other species based on their capacity to make and use artifacts as "extrasomatic" modes of species adaptation and the intimately related ability to transmit these adaptations to succeeding generations through language. As A.R. Luria recounted the basic approach half a century later:

> The chasm between natural scientific explanations of elementary processes and mentalist descriptions of complex processes could not be bridged until we could discover the way natural processes such as physical maturation and sensory mechanisms become intertwined with culturally determined processes to produce the psychological functions of adults. We needed, as it were, to step outside the organism to discover the specifically human forms of psychological activity. (Luria, 1979, p. 43)

What Vygotsky, Luria, and Leontiev found when they stepped outside the organism was a world transformed by prior human activity and the resolution of the "science versus history" dichotomy that they proposed rested on the assumption that cognition mediated through those historically accumulated transformations of nature is the defining characteristic of human psychological processes.

The basic idea of cultural mediation advanced by this school of Soviet psychologists can be traced back into antiquity and forms the basis for a good deal of modern anthropological theorizing (Geertz, 1973; Sahlins, 1976). The function of these artifacts is to coordinate human beings with the physical world and each other. Cultural artifacts are simultaneously ideal (conceptual) and material. They are ideal in that they contain in coded form the interactions of which they were previously a part and which they mediate in the present. They are material in that they exist only in so far as they are embodied in material artifacts.

When one takes cultural mediation to be the center of one's psychological theory, a great many consequences follow. One consequence of special relevance in the present context is that as a result of developing in a cultural environment, human beings live in a world that is simultaneously "natural" and "artificial." (Ilyenkov, 1982, Luria, 1981; White, 1959). As Luria put it, this enormous psychological transformation means that our world "doubles."

> In the absence of words, human would have to deal only with those things which they could perceive and manipulate directly. With the help of language, they can deal with things which they have not perceived even indirectly and with things which are part of the experience of prior generations (Luria, 1981, p. 35).

Cultural mediation also implies an intricate interweaving of those two antimonies of social science analysis, the individual and the social because it is through participation in linguistically/culturally mediated human activity that human mind is formed and exercised.

As Vygotsky put it,

> The history of the development of signs brings us, however, to a far most general law that directs the development of behavior. Janet calls it the fundamental law in psychology. The essence of

> the law is that the child in the process of development begins to apply to himself the very same forms of behavior which other applied to him prior to that. The child himself acquires social forms of behavior and transposes those on to himself... The sign originally is always a means of social contact, means of influence upon others, and only subsequently does it find itself in the role of a means for influencing oneself (Vygotsky, 1960, p. 192).

This ordering of "social to the mental," which is accomplished in the process of transmitting culture from one generation to the next requires not only communication from the social group to the child, but active appropriation by the child of the already existing cultural toolkit, in particular language, as a means of objectifying its desires and achieving its own goals. This special relationship between human thought and the communicative tools at people's disposal is beautifully capture in a brief quotation that Vygotsky (1934/1988, p. 243) selected from a poem by Mandelshtam to epitomize the relationship between thinking and speaking:

> I forget the word that I wanted to say,
> And thought, unembodied, returns to the hall of shadows.

According to this view, mind is actually formed in the process of communicating, and that which cannot be given voice to ceases to exist as an active organizing element in human consciousness.

## Concrete areas of research

During the late 1920's and early 1930's, adherents of the socio-historical school applied their ideas about the mediated nature of human activity in several different areas of psychology. The conceptual linchpin of these efforts was the understanding, inherent in the mediational view of mind, that both cognition of the world and control of one's own actions are accomplished, in part, *indirectly.* In both English and Russian this assumption is retrievable from the word mediation itself. In English, for example, the antonym of the word "direct" (as in "direct action" or "direct influence") is the word "indirect." A synonym of the word "direct' is "immediate". And of course, the corresponding synonym for "indirect" is "mediated."

This mediational view of mind represented a promising resolution of the

"science versus history" debate because it simultaneously retained the idea that cultural history is central to the constitution of mind (because it provides the conceptual toolkit that is each child's birthright) and provided a methodology which retained experimentation as a key (though not exclusive) element. The essence of this methodology, which Vygotsky (1978, p. 61) referred to as "experimental-developmental" was to study the process of psychological change provoked under controlled laboratory conditions. Borrowing from the German psychologist, Heinz Werner, Vygotsky declared that

> Any psychological process, whether the development of thought or voluntary behavior, is a process undergoing changes right before one's eyes. The development in question can be limited to only a few seconds, or even fractions of seconds (as in the case of normal perception) It can also (as in the case of complex mental processes) last many days or even weeks. Under certain conditions, it becomes possible to trace this development. (Vygotsky,1978, p. 61).

A wide variety of studies carried out by Soviet socio-historical psychologists used this insight. For example, in studies of the development of voluntary behavior in young children, Alexander Luria demonstrated that the acquisition of self control in simple situations where children were asked to squeeze a rubber bulb or refrain from squeezing is intimately related to the ability of the child to mediate their activity through language. Such results substantiated his belief that

> voluntary behavior is the ability to create stimuli and subordinate [oneself] to them; or in other words, to bring into being stimuli of a special order, directed at the organization of behavior. (Luria, 1932, p. 401)

Just as studies with children could lay bare the way in which the acquisition of mediational means was crucial to the evolution of behavior, so are such mediational means crucial to the remediation of behavior in cases of injury or disease. In a well known early example of this principle, Luria and Vygotsky carried out pilot work with a patient suffering from Parkinsonism. So severe was this condition that the patient could not walk across the floor. However, paradoxically, the patient could climb stairs. Vygotsky and Luria

(reported in Luria, 1979) hypothesized that when climbing stairs, each stair represented a signal to which the patient had to respond in a conscious way. When Vygotsky placed pieces of paper on a level floor and asked the patient to walk across the room stepping over them, the formerly immobile patient was able to walk across the room unaided. In a series of studies, Luria and Vygotsky showed that a variety of techniques which induced subjects to regulate their behavior indirectly through language produced the same kinds of remedial effects.

Subsequently this "re-mediation" strategy was used by Soviet psychologists in a wide variety of studies of the development of higher psychological functions both in children, and in adults who were injured in some way. Thus, for example, Luria (1929/1978) studied the development of writing as a way of overcoming heavy demands on memory, Leontiev (1981) studied the development of the use of mnemonic devices in normal and retarded children, Istomina (1948/1975) and Maniulenko (1948/1975) studied the way in which play can reorganize memory and motor functions, while many investigators including Leontiev, Luria, and Zaporozhets developed re-mediational techniques to deal with injury cases in which speech, memory, and motor functions had been destroyed.

It needs to be emphasized, that the project of the cultural-historical psychologists took shape under extremely difficult socio-historical conditions (See Kozulin, 1984; Valsiner, 1988, and Wertsch 1985, for more details). Their basic work was carried out almost simultaneously with the collectivization movements of the late 1920's and the Communist Party's assertion of ideological control in all spheres of Soviet life, science not least of all. Thus, while their work became relatively well known in Europe and the United States rather quickly, they remained a very small movement within Soviet psychology.

During this period they worked simultaneously in several institutions in Moscow, combining their work in the Institute of Psychology with teaching at Moscow University and adjunct positions in other organizations. They gathered a small band of loyal students. But they came under increasingly severe attack for the attention they paid to Western European psychology so that despite efforts to relocate to the Ukraine and sustain their unity as a school, by 1936, with Vygotsky dead and his student/colleagues dispersed, little appeared to remain of the school and its ideas.

## Historical Development of Communication as a Discipline

In the previous section I have sought to establish two points: that the Soviet cultural-historical scholars formulated the core of a principled synthesis of natural science and cultural-historical approaches to human nature and that artifact-mediated communication was at the heart of their approach. I assume for purposes of this paper that I have established these points. [There are, of course, interweaving stories about the way in which other social science disciplines —anthropology, sociology, linguistics, economics, political science, etc.—developed as a part of the agreement that allotted to Psychology responsibility for explaining individual consciousness/behavior. But my focus will be on the ways in which various dissatisfactions with the late 19th century division of scientific labor came together around mid-century to create a new scientific discipline called Communication. I should add at the outset that I view this new discipline as in a somewhat embryonic state, a point to be elaborated below.]

The academic study of processes of communication, can, of course, be traced back at least to the systematic writings of Greek scholars on rhetoric and persuasion. However, Communication as a discipline is a 20th century phenomenon. It arises as a topic of concern uniting *academic* critics of the division of labor that separated the social and humane sciences (and subdivisions within each of the "branches" on the tree of knowledge), with *social* concerns over the power of newspapers, radio, and film to influence public opinion. Both the academic and social concerns were intimately tied to *technological* advances in transmitting, storing, and transforming information. The advent of new means of communication began so markedly to change the quality of everyday experience, that "the media" entered public discourse and public consciousness as a phenomenon to be studied and understood.

It is essential to remember in this connection that when Wundt opened his laboratory, still photographs were a novelty, the patent for the telephone was still only a few years old, the "wireless" had yet to be invented, the abacus was still the most powerful arithmetic calculator on earth, and the most rapid means of transportation from New York to London required several days under the best of circumstances. Thus, along with the advent of universal education, massive urbanization, and modern forms of work, technological innovation of new media drastically changed the spatial and temporal conditions of mediation in the everyday lives of people - and hence human consciousness.

## Social Concerns and Academic Interests

At the same time that the Soviet cultural-historical psychologists were formulating a mediational theory of mind in response to the shortcomings they perceived in Wundt's dual psychology and its Western European and American successors, a number of American scholars were formulating kindred ideas in a very different social and political context. The ideas of Charles Cooley, John Dewey, Robert Park, and Walter Lippmann were especially important in the early stages of this process (in what follows, I draw heavily on Daniel Czitrom's, 1982, cogent historical account).

It is strategically useful to begin an examination of the ideas of this group of scholars with Dewey, in part because he wrote one of the earliest textbooks in psychology (1887), in part because he was a professor with whom Cooley and Park studied, and in part because he was acknowledged by the Soviet cultural-historical theorists as an important influence on the development of their ideas.

Dewey's entire approach to pragmatic philosophy can be seen as a working out of the dilemma brought about by the fact human's live in a double world; the constant problem of reconciling these worlds is the basis for what he termed, experience. Yet within the discipline of communication, Dewey figures more as a social philosopher than a psychologist.

In a famous passage from *Democracy and Education* (1915, p.4) he declared that

> Society not only continues to exist by transmission, by communication, but it may fairly be said to exist in transmission, in communication. There is more than a verbal tie between the words common, community, and communication. Men live in a community in virtue of the things they have in common; and communication is the way in which they come to possess things in common.

And in his later *Nature and Experience*, he added that communication

> is instrumental as liberating us from the otherwise overwhelming pressure of events and enabling us to live in a world of things that have meaning. [Communication also enables] a sharing in the

> objects and arts precious to a community, a sharing whereby meanings are enhanced, deepened, and solidified in the sense of communion (1929, p. 166)

When both aspects of communication are combined in experience,

> there exists an intelligence which is the method and reward of the common life, and a society worthy to command affection, admiration, and loyalty (p. 204-205).

Best known for the application of such ideas in the organization of education, Dewey took an intense interest in the media, especially newspapers, at one time toying with the project of starting a newspaper ("Thought News") as a means of creating socially organized intelligence Nothing came of this project, and although Dewey wrote directly about problems of communication only rarely in his later life, his influence was greatly amplified through the work of his students, Charles Horton Cooley and Robert Park.

Attracted by the 19th century notion of society as an organism, but unhappy about what he considered the overly biological and individualistic use of this idea by such thinkers as Herbert Spencer, Charles Horton Cooley referred to communication as "the threads that hold society together" in a way homologous to that in which a nervous system unifies the activity of a human being. Moreover, according to Cooley, communication was both constitutive of individuals and society and the foundation of history.

> Society is a matter of the incidence of men on one another. And since this incidence is a matter of communication, the history of the latter is the foundation of all history (Cooley, 1897, p. 73-74).

Included in the category of communication were all of the artifactual systems of his time: "gesture, speech, writing, printing, mails, telephones, telegraphs, photography, and the techniques of the arts and sciences—all of the ways in which thought and feeling can pass from man to man. "

His belief in the double-sided nature of communication in constituting simultaneously the individual and the social group led Cooley to propose the idea of "the looking glass self" in which the self is formed only in constant intercourse with others, e.g., in communication. As a consequence of each

person's self image being shaped by other's images of them, no uniform, binary, differentiation of self and other is possible. Rather, what constitutes both "self" and "other" will depend intimately on the patterns of communication that mutually constitute them.

Cooley was even less inclined than Dewey to engage directly in research on the media, but his writings provided an overall framework within which to view communication as a process uniting "macro" social and "micro" individual phenomena, as well as a driving force in socio-historical change.

Whereas Cooley eschewed the rough and tumble of involvement in the media, Robert Park entered journalism upon graduating from the University of Michigan in 1887 after taking half a dozen courses from Dewey. He is a particularly interesting contributor to this story because he provides a bridge between the academic concerns over the shortcomings of the social sciences on the one hand and practical concerns about the impact of the new media on the development of society, on the other.

After spending a decade as a working journalist in several large urban areas, where he covered the police beat, (an occupation that inevitably makes one wonder what can be done to cure societies ills) Park tried to assist Dewey's efforts to create a "thought" newspaper, and finally returned to graduate school in the belief that he needed to get a better theoretical grasp of the phenomena known as "news" and "public opinion." His studies took him eventually to Europe, where he worked with German scholars central to the debate over what kind of enterprise psychology might possibly be, wrote a dissertation on "The Crowd and the Public," in which he attempted to distinguish different mediational characteristics of the two kinds of collectivities.

Park is important to this story for several reasons. First, he, like the other early 20th century figures we have been discussing focused on how conditions of mediation affect the relationship between the individual and society; in particular, he suggested that modern communications made possible a moulding of public opinion that was based on reasoning and thinking rather than feeling and instinct which were said to characterize crowds. Optimistically, he believed that improving journalism might be able to facilitate a form of intelligence greater than that of a crowd. He is also important for initiating concrete research, within the discipline of Sociology, aimed at problems that would become central to the new discipline of Communication in later decades.

The last figure in this quartet of early American communication theorists

is Walter Lippmann. The epigram for his classic book, *Public Opinion* (1922), is Plato's parable of the cave and the opening chapter is an extended meditation on the special quandaries introduced by cultural mediation for the organization of large scale societies.

> Looking back [on the onset of World War- M.C.] we can see how indirectly we know the environment in which nevertheless we live. We can see that the news of it comes to us now fast, now slowly; but that whatever we believe to be a true picture, we treat as if it were the environment itself." (p. 4)

He goes on to say that in all such cases where retrospective analysis yields information of our blindness to our circumstances, there is "one common factor" at work,

> It is the insertion between man and his environment of a pseudo-environment. To that pseudo-environment his behavior is a response. But because it is behavior, the consequences, if they are acts, operate not in the pseudo-environment where the behavior is stimulated, but in the real environment where action eventuates....For certainly, at the level of social life, what is called adjustment of man to his environment takes place through the medium of fictions.
>
> By fictions I do not mean lies. I mean representation of the environment which is in less or greater degree made by man himself. (Lippmann, 1922, p. 15)

An additional indicator of the similarities between Lippmann's ideas about cultural mediation and those of the Soviet school (if this point needs further demonstration) is his insistence that

> The analyst of public opinion must begin, then, by recognizing the triangular relationship between the scene of action, the human picture of that scene, and the human response to that picture working itself out upon the scene of action.
> (Lippmann, 1922, p. 16).

## Two Courses of Institutionalization

Here I turn from the evident similarity of the basic ideas of the Soviet cultural-historical approach and those of the early 20th century progressive/ pragmatists who provided the impetus for the growth of Communication as a academic enterprise in the United States to examine the relationships between them and differences in their historical courses. Between approximately 1930 and 1960, these two academic enterprises developed in relative isolation from each other. The environments for these two lines of development were very different, and so, consequently were their institutional histories.

### The USSR

As mentioned earlier, despite earlier attempts at establishing an institutional base from which to develop their ideas, the founders of the cultural-historical school were overwhelmed by official, government sponsored opposition not only to their approach in particular, but to the whole apparatus of academic psychology. The cultural-historical approach, specifically as it was embodied in the work of Luria and Vygotsky, was ruled anti-Soviet, even before psychology as a discipline was, for all intents and purposes, disbanded and distributed into other areas of social activity (education, medicine, philosophy, etc.). Only pockets of the former lines of research remained intact. The cultural-historical approach as a self conscious grouping or "school" was denied and minimized by its members as they wrestled with the terrible realities of Stalinism. When World War II came, as recounted earlier, the theory of mediation used by the cultural-historical school proved to be of practical help in dealing with the remediation of war wounds. Little changed after the war to lighten the administrative constraints against institutionalization of the school until the death of Stalin in 1954. Then, from the late 1950's to the early 1970's there was a flowering of publications, drawn both from the early history of the school, and from empirical work carried out in the intervening decades. At the same time, the remembered group gathered at Moscow University and various institutes associated with the Academies of Pedagogical Sciences and Medicine, which linked them through education and medicine to the practical contexts in which they had conducted their work (Cole and Maltzman, 1969).

However, when psychology was "promoted" to official scientific status by

the creation of an institute of psychology in the Academy of Sciences, the viewpoint of the cultural-historical school was little to be heard. Rather, a different kind of psychology, organized around the philosophical ideas of S.L. Rubenshtein, gained dominance in Soviet psychology. Gradually, as elder statesmen of the cultural-historical approach died, the institutional memory of their ideas died too, and their intellectual progeny were dispersed once again.

At present there is a new era in Soviet society. What it will mean for Soviet psychology in general and the views of the cultural-historical psychologists in particular, remains to be seen. Adherents of other viewpoints currently continue to control many of the most prestigious psychological institutes. However, cultural-historical psychologists are represented in the hierarchy of the Academy of Pedagogical Sciences and at least one new institution, the Institut Cheloveka (Institute of Humanity), is attempting to develop the ideas of the cultural-historical school within a broad, interdisciplinary, framework. I find it interesting that central figures in the new Institute have been insisting that cultural mediation holds the key to an integrated understanding of human nature in terms that have a very modern and urgent ring. How this new attempt at institutionalization will evolve I do not know. I have come to the present.

## The USA

If the originators of the Soviet cultural-historical school were reeling from the effects of the Revolution, their Western counterparts seemed fixated on the consequences of the First World War. Concern with the influence of enemy propaganda and domestic advertising were very much the focus of attention, and it is these concerns which motivated the leading lights of the emerging discipline of communication.

During the 1920's the optimism of Dewey, Cooley, and Park that the mass media could serve as a positive force for democracy was gradually replaced by pessimism. In the 1930's, social scientists reversed their emphasis, and began to see mass media, especially radio, as a threat to democracy. Several well known studies focused on radio, advertising, the effects of film on the social mores of the young, and persuasion.

During the 1930's, '40s and '50s much of the empirical work in communication was framed in terms of "media effects": How does message A affect citizen Y? What makes the message persuasive? Initially, in terms very simi-

lar to those used by early behaviorist psychology, the process of media influence was likened to a "hypodermic needle" injecting ideas (for good or evil) into radio's mass audiences. Such deterministic formulations arose in part because of the elaborate propaganda campaigns used by fascist and socialist governments prior to World War II and in part from the spread of advertising as the economic foundation of mass media in the United States.

A major intellectual figure in the creation of empirical research on these issues was Paul Lazarsfeld, a political sociologist who immigrated to the United States in the 1930's from Germany. Lazarsfeld is interesting both for the intellectual caste that he gave to the emerging discipline and in part for his role as an organizer of research institutes.

In light of the earlier discussion about the split between historical/descriptive and scientific/explanatory approaches to psychology, it is interesting to note that Lazarsfeld was acutely aware of the arguments over the nature of the social sciences, and particularly possibility of a scientific psychology. He was a student of Karl Buhler, an Austrian psychologist who wrote about "the crisis in psychology" at almost exactly the same time that Vygotsky was writing a book on this topic in the USSR. A central reason for that crisis, Buhler and Vygotsky agreed, was the continuing inability to synthesize the "two psychologies" deeded the field by Wundt.

Lazarsfeld (1941, 1969) chose to side with those who believed that the quantitative methods and causal models of the natural sciences should form the basis of communication, which he considered a branch of the social sciences. He called this approach "administrative communication theory." It was administrative in two respects. First, it took its problems from existing social institutions and the present organization of such institutions (advertising companies, government bureaucracies, etc.). Second, the goal of the theory was to make possible the effective administration of existing systems. In collaboration with others, he created such techniques as opinion sampling, market research, and methods for the measurement of media effects (e.g., the effects of an advertising campaign for a brand of soap or a presidential candidate).

There was an additional, important, sense in which Lazarsfeld was an administrative theorist: he entrepreneured and administered one of the earliest research institutes within an American University. First with funds from the Rockefeller Foundation and the broadcast industry, and subsequently from various branches of the U.S. Government, he built what eventually came to be called the Bureau of Applied Social Research at Columbia Uni-

versity. The concentration of resources which the Bureau made possible created an obvious power center within the discipline of communication, helping to spread Lazarsfeld's vision of the field.

Lazarsfeld's intellectual approach was opposed from its inception by fellow Germans associated with the Frankfurt school of critical theory, including Theodore Adorno, who conducted well known research on music and other forms of popular culture, and Leo Lowenthal, whose study of popular fiction has had a major influence on the sociology of literature. In way that echoes 19th century debates about the possibility of experimental studies of mind, the critical theorists argued that administrative approaches were little more than linear extrapolations of short-term social trends which ignored the larger social and historical context in which they occurred. Such theorizing, they argued, might serve to prop up the sagging institutions of capitalist states, but could not, in principle, serve as an adequate theoretical framework of study of communication (it is interesting to note that despite their theoretical disagreements, both Adorno and Lowenthal at one time worked within Lazarsfeld's institutional structure, but they are unable to sustain longterm working relationships with him precisely because their research did not answer to the administrative needs of funding agencies).

In the half century since Lazarsfeld, Harold Laswell, Hadley Cantril and other social sciences launched the first large scale studies of mass mediation, the discipline of Communication has grown and diversified remarkably. In the 1950's formal graduate training "in communications" began. In the beginning, such training was focused in schools of journalism, but their commitment to graduate training forced them beyond the newspaper to consider radio, television, and other media. To this day the early centers of communication research remain tied to some area of professional expertise but they are increasingly associated with fields of economic activity where new forms of media are exerting growing influence on economic and social life. This mix of basic and applied emphasis is illustrated by several major departments; The Annenberg School of Communications at USC (which emphasizes the scholarly study of communication technology on the one hand and business administration on the other, Stanford School of Communication (communication and international development), Wisconsin (journalism and mass media), and Michigan State (mass media analysis and production).

As might be anticipated from the "two sciences" split among communication scholars reified in the distinction between administrative and

critical theory, various non-social science versions of the discipline grew out of departments of rhetoric, speech, and literature. Departments growing in this way have tended to combine their initial orientation with the study of semiotics or production in film, theater, or television.

A third approach, institutionalized in different ways at the Annenberg School of Communication in Philadelphia and the University of Montreal, has been to bring adherents of the different entry points to the scholarly study of communication together in a single institutional setting to explore the basic concepts of the new discipline. Such programs are, of necessity, highly interdisciplinary. Consequently, a major obstacle they face is the construction of a common discourse. My own efforts, and those of the department with which I am associated, has followed this third course. It is in this context, the context of attempting to forge a new discipline that re-unites those areas of research associated with the social sciences from the humane sciences and the arts, that I find the ideas of the Soviet cultural-historical psychologists so useful precisely because they were attempting to formulate a mediational theory of human nature that overcame the dichotomy between administrative (natural science) and critical (culture-historical science) research that continues to haunt the field.

## Converging Lines

In his well informed history of Soviet psychology, Alex Kozulin is led to muse about the current interest that Vygotsky, the designated founder of the cultural-historical school, has evoked in Europe and the United States.

> In recent years Vygotsky has attracted the interest of American psychologists and philosophers, making him one of the best-known Soviet behavioral scientists. This is in itself a kind of mystery. Vygotsky's works are loaded with philosophical issues, literary images, and the once-topical arguments of European scholars. What could be more remote from the mainstream of American thought? But perhaps it is precisely these"remote" ideas that are needed now. (Kozulin, 1984, p. 117)

It is my belief that precisely those remote ideas of the late 19th and early 20th century, when scholars carved human nature by its positivist joints, are relevant today. They are relevant because there is dissatisfaction with strict

separations between the social sciences, humanities, and arts that reaches far beyond the confines of parochial arguments in psychology or communication.

What is presently at issue is the question of how new integrations of these fields of inquiry can be institutionalized. Where might the study of mediation be organized to afford the resolution of the *geisteswishenaffen-naturvissenshaften* dichotomy of our forefathers? Where will they be integrated into intellectual discourse and everyday life? First, my guess is that such an enterprise will continue to exist as "critical" branches of many existing disciplines, psychology among them. However, they will also be institutionalized in new disciplines that reintegrate intellectual threads which were torn asunder at the turn of the century. Communication is arguably one such potential nexus of reintegration. The History of Consciousness at UC Santa Cruz, various institutes of human sciences, and (who knows) perhaps the Institut Cheloveka, in Moscow, are plausible other manifestations of this same line of thought.

I am optimistic about the future of Communication in part because I see a strong foundation for creating a coherent discipline from a fusion of the ideas of the socio-historical school and those of the founders of Communication as a discipline in the United States tempered by the accumulated experience of the past 50 years of political disappointment and technological progress.

Whether or not my particular vision for the field has a future, I am reasonably confident that communication will continue to grow as a subject of scholarly research. There is reasonably widespread consensus that the dramatic growth of new communications technologies is confronting every facet of human existence with widespread change. This consensus was summarized by Anthony Oettinger, Chairman of the Program on Information Resources and Policy at Harvard University in an article in *Science* magazine in words that echo strongly those of the turn of the century.

> By widening the range of possible social "nervous systems" the continuing growth of information resources is upsetting the world order just as the Industrial Revolution upset it by widening the physical modes of production. Where this will lead to is as hard to foretell as predicting today's world when the steam engine was invented. (Oettinger, 1980, p. 191)

Oettinger deftly summarizes the reason why, in the latter half of the 20th century, a new discipline devoted to the study of humanity from the perspective of its mediational means might arise: greater knowledge of mediated human activity had become both an immediate necessity and a window on the future.

How successful this new disciplinary effort will be remains to be seen. It was the intellectual challenge offered by Vygotsky and his colleagues in the USSR and the founders of the discipline of communication, who with Dewey, believed in the possibility of creating a higher "social intelligence."At present such integrative approaches to communication remain distinctly in the minority. But the question before us is plain enough: Which will it be in our historical circumstances? A spiral of academic development that resolves the unsatisfactory dichotomies of past thinking or just another vicious circle?

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