This speech discusses concrete entities and abstract phenomena—focusing especially on the ideas of Plato and Aristotle. The author first explains that, according to Plato and Aristotle, there is a qualitative difference between things classified as concrete and those labeled abstract. She then questions whether there really is a difference between objects, or whether this distinction is a dichotomy created by Plato and Aristotle. The author concludes attempting to understand perceptual and motor behaviors, experiences, and processes cannot explain the coexistence of two kinds of awareness or phenomena—called abstract and concrete. (PB)
As many of you know, I often take my quotations from the
Collected Poems of Wallace Stevens, as published by Alfred Knopf in
1954 to celebrate the poet's seventy-fifth birthday. Many of my
favorites were written long before that—in the late 30's and early
40's--and some of these early poems raise questions which are now
being debated by contemporary scientists, philosophers, educators and
multidisciplinary researchers who are concerned with perceptual-motor
matters.

The title phrase "too much like thinking to be less than thought"
is taken from a poem called Looking Across the Fields and Watching
the Birds Fly --which contains some lines about

What we know in what we see
What we feel in what we hear
What we think...
And what we are...

A breathing like the wind
A moving part of motion
A change part of change
A discovery...part of a discovery...
Too much like thinking to be less than thought...

Then along the way I shall give you some excerpts from poems called:
Arcades of Philadelphia the Past, Connoisseur of Chaos, Life is Motion,
and The Latest Freed Man.

Much of my own thinking about what we know in what we see, hear,
touch, taste, smell, feel and move has been done in situations which
offer people a chance to experience their own ways of moving, sensing,
perceiving and thinking before they try to verbalize about what they
know...or think they know...or think they think....

In such a seminar I might begin by asking students to consider
a chalk stick or some other familiar object. On occasion I have used
lemons--or in a large class, I might use kumquats. But, here you may
find it convenient to consider your own left hand--or right, if you
prefer.

First, a quick glance at your hand. Then close your eyes and
tell yourself what you saw--or what you think you saw.

Perhaps you said, "I saw a hand--or a hand-shaped object." Or
perhaps, "I saw a square hand with short, stubby fingers." Or,
"A slender rectangular hand with long, tapering fingers." But surely
this is a very inadequate description of a very complex structure--so
we might take a second look.

How would you describe the shape of your hand, the shapes of the
several fingers, and the relationships among them? Do you see your
hand as a square or a rectangle with five sticks jutting out--four
in a row, and a short one jutting out at right angles to the others?

Surely you could sketch this arrangement with a few pencil strokes
but you would need many words to describe or explain it.

Then you might notice the crisscross lines on the fingers and palm of your hand. Again, it is easy to visualize this pattern or to sketch it with a few pencil strokes—but a verbal description of these lines and patterns would require many hundreds of words.

Perhaps you are tempted to trace some of these lines and patterns with a finger tip—so you can feel the pattern in your hand and fingers. Can you find words which describe this felt pattern?

Or, you might explore the texture of your hands by rubbing them together—noting differences between dorsal and palmar surfaces. Or, you might explore the action of the thumb—noting that the thumb can touch the tip of the index, middle, ring, and little fingers in turn. (Did you know that man is the only creature with an opposable thumb? How would you eat—or write—if your thumb could not move in this way?)

Or, you might explore the sounds made by your hand—by snapping your thumb against your middle finger. Can you snap your little finger? Your ring finger? Your index finger? Why not? Where does the snapping sound happen? How is it amplified?

This might remind you of some of the hand games your mother or grandmother taught you—like "here's the church and here's the steeple—open the door and see all the people." How many words would you need to describe these complex coordinations? To make a kinesiological analysis of the muscles involved in these actions? To tell a child how to perform these actions?

Can you perform these game coordinations with your eyes closed? How do you know you are doing this? How do you know you are doing it right?

Or, you might make your hand into a claw—and scratch yourself—like this. And, this might suggest many fascinating eye-hand coordinations...such as:

Make your hand and arm into a long-necked bird with a long beak—which opens and closes like this. Or, two birds coming toward each other, with beaks going like this. Or, two long-eared rabbits, wiggling their ears. Or, we might convert the little finger into a tongue which darts in and out of the rabbit's mouth. (Can you wiggle your ears and dart your tongue at the same time?)

Now, shake your hands and put them in your lap....

What do you know about your hand? What did you see...hear...touch...feel...move...think...think about?

While you are pondering about these questions, you might also ponder about the sense of these words:

To see, to hear, to touch, to taste, to feel...
That's NOW. That's this...

and "out of what one sees and hears and feels" and is—"who could have thought to make so many sensuous worlds"—so many thoughts—so many "descriptions of being"—and so few words.
Now, put it all together in one complex, wordless conception of hand or my hand.

Can you relate the sense of that conception to the words "hands across the sea?" Or, to the words "reach out and touch your neighbor's hand?"

Are you a bit hesitant about the idea of touching your neighbor's hand? Perhaps you and your neighbor would prefer some words I learned from a student: "My heart is shaking hands with yours."

I like those words. So, let's convert them into the act of actually shaking hands with our neighbors.

Did you say anything to your neighbor? Did your neighbor understand your silent--and heartfelt--handshake?

Now, settle back in your chairs and think about some words taken from the current literature of philosophy, science, psychology, and education:

- concrete - abstract
- objective - subjective
- body - senses - mind
- move - sense - feel - perceive - think
- cognize - conceptualize - rationalize - verbalize
- imagine - intuit - hypothesize
- logical thinking - analogical thinking
- motor - psycho-motor - perceptual-motor
- sensory - perceptual - sensory-perceptual
- mental - physical
- psychic - somatic - psychosomatic - somatopsychic
- mental processes - symbolic processes - verbal processes
  - perceptual processes - sensory processes - emotional processes - motor processes - visceral processes
- cognitive domain - affective domain - aesthetic domain - psycho-motor domain
- academic - aesthetic - athletic - non-academic

Perhaps I should give you some authoritative definitions of these terms, as found in recent dictionaries—but in one way or another all dictionary definitions of mind-body words refer back to older definitions which were formulated by Plato and Aristotle some 2500 years ago. So, please bear with me while I try to sort out their original descriptions of being in general—and human beings in particular—beginning with their categorical distinction between concrete entities and abstract phenomena.

(And, while I am doing this, you might occasionally ask yourself: Do I agree with Plato and Aristotle? Or, does my own 20th century thinking differ from the thinking of two very knowledgeable men who lived and died in Athens, some 2500 years ago?)

By definition, any thing or entity which can be seen by the eye, heard by the ear, touched by the hand, sensed or felt by the body, moved by the muscles, or manipulated by implements is concretely real—or concrete.

Conversely, and also by definition, any conceivable phenomenon
which can not be sensed or perceived by the sense organs or moved by
the muscles of a concrete living organism is essentially non-concrete
or abstract.

Do such non-concrete abstractions really exist? Or, do men only
think that they exist?

Can you prove that such non-concrete abstractions really exist
in the same way that concrete things exist?

Are concretely real substances more real than non-concrete
abstractions?

Does the concrete precede the abstract? Does the abstract
precede the concrete? Does existence precede essence? Or, did
essence precede existence?

These questions have perplexed philosophers and scientists and
educators for twenty-five hundred years. So, we may skip them for
now--and get on to the subject of the concrete, conscious, living
organisms called animal beings and human beings.

In general, Plato and Aristotle thought that all conscious living
organisms or creatures were innately endowed with something called
awareness or consciousness. And they thought that this something was
evidenced by two abilities: the ability to be aware of the concrete
components of the universe, and the ability to respond to this
awareness in some concrete way--in general, by glandular secretion
or muscular contraction.

Or, we might say they defined the something called awareness
or consciousness in terms of the ability to respond to whatever
awareness was aware of--but they did not try to describe or define
the nature of awareness or consciousness as such.

Additionally, they thought that all human beings--as distinguished
from animal beings--were innately endowed with a distinctively human
kind of awareness, which was evidenced by two distinctively human
abilities: the ability to be aware of essentially abstract phenomena,
and the ability to respond to their own awareness of abstract
phenomena in both abstract and concrete ways.

But, even as they had not speculated about the nature of the
concrete kind of awareness which was common to both men and animals,
they did not speculate about the abstract kind of awareness which
seemed to be peculiar to human beings.

And so they could not ask the question: Is the human or abstract
kind of awareness only a more complex form of the concrete kind of
awareness which seems to reside in the concrete bodies of all conscious
living organisms?

In general, they thought that this human or abstract kind of
awareness resided in an abstract entity called the mind--as distinguished
from the concrete brain. And it seemed to them that this imperceivable
abstract mind was probably housed in the concrete body--probably near
the most complex part of the brain. And, in time, they thought that
this part of the concrete brain transformed the ordinary concrete kind
of awareness into the abstract human kind of awareness--and then passed
this humanized awareness on to the abstract mind for further processing.

But they always made a categorical and verbal distinction between
brain and mind--and between the concrete stuff which was processed by
the concrete brain and nervous system and the abstract stuff which was
processed by the abstract mind.

To restate all this in behavioral terms--they thought that behaviors
evidenced by all conscious, living organisms--such as sensing, perceiv-
ing, responding, secreting, and moving--were mediated by concrete mech-
anism which were located in the concrete body of the organism. And
they thought that distinctively human behaviors--such as thinking, cog-
nizing, conceptualizing, rationalizing, and verbalizing--were mediated
by abstract mental mechanisms which were located in the abstract mind.

And, in general, they thought that these abstract mental processes
did not participate in concrete bodily behaviors--except in the special
case of verbal behaviors such as saying, writing, hearing, or seeing
words or other verbalizable symbols. Then, for purposes of further
study, they assigned all verbalizable kinds of abstract mental behaviors
to the discipline called epistemology--which was Plato's specialty.
(The Greek word for mind is epistemikos.)

And they assigned the concrete mechanisms which mediate concrete
bodily behaviors to the scientific disciplines--which were Aristotle's
specialty. (The Latin word for knowledge is scientia--akin to scindere,
which means to cut or to split.)

But, neither Plato nor Aristotle cared about the perceptual arts--
such as music, sculpture, or painting--so they assigned all behaviors
which were mediated by the concrete sense organs to the realm of
aesthetics. (The Greek word for senses or sense organs is aesthetikos.)

Then--as you all know--they agreed that all behaviors which were
mediated by the abstract mental processes--such as abstract thinking,
cognitive thinking, rational thinking, and verbal thinking--were worthy
of academic credit.

And, in the belief that the abstract mental processes did not
participate in aesthetic or athletic endeavors, they ruled these non-
verbal perceptual and motor behaviors out of Plato's Academy and
Aristotle's Lyceum, and out of all academic curricula from that day
to this.

Is "what we know in what we see," perceive, sense, feel and move
"too much like thinking to be less than thought?"

Is visualization too much like cognition or conceptualization
to be less than mental?

How does the process of visualizing an object or a picture differ
from the process of visualizing and cognizing a printed word?

Are movement experiences too much like cognitive experiences
to be non-cognitive in nature?

Our tongues stutter over these questions--which imply the co-
existence of two categorically different kinds of awareness: a
mental kind and a perceptual-sensory-affective-muscular-visceral kind. And so, we are tempted to ask: Are these two kinds of awareness really all that different from each other?

Plato and Aristotle thought that verbalizing students, philosophers, scientists and educators were really thinking about what they were talking about. They thought that non-verbalizing artists were sensitive, but mindless, kooks, who could only sense, perceive, and feel their awareness of the perceivable forms they created. And they believed that the abstract mental processes did not participate in concrete athletic endeavors. But did Plato and Aristotle settle all questions about differences between seemingly concrete and seemingly abstract phenomena for all time and eternity?

Here I shall ask you to recall one minute of participation in a game called basketball--or tennis, or dodgeball.... Choose a particular minute in which the ball is coming toward you--a particular minute which involves necessity for decision and action.

Let your mental eye race around the playing space--the floor, ground, playing surface, markings, uprights, baskets, walls, overhead space. Visualize all of these concrete objects, and the relationships among them....

Then, visualize ten concrete players moving about in relation to these spatially-defined objects...and in relation to each other...and in relation to you....

Do their movements make sense to you? How are their movements related to the spatial artifacts? To the rules of the game? To you--as you receive the ball?

Now, let your mental ear pick up the sounds of the game--the murmuring or shouting voices--the shrill blast of a whistle--the soft slap of running feet--the tattoo of ball on hardwood.

Add the smell of sweat and leather--the salt taste in your mouth--the dryness in your throat--the feel of sweat on your skin--the feel of the ball in your hands--the feel of tension in your muscles--and the feeling of excitement or fear or confidence, or whatever feelings are churning within your own viscera.

Now, try to put it all together in one complex and wordless recollection of everything you were seeing, hearing, touching, tasting, smelling and feeling in that 5 second interval between receiving the ball and getting rid of it. Add your own knowledge of your own strength, skills, abilities--your best estimate of the strengths, skills, and abilities of nine other players--everything you know or think you know about the game of basketball--everything you know or sense or feel about the immediate situation. Put it all together and ask yourself: What shall I do?


Think fast and intensively--because you must put it all together, decide what you will try to do, and act out that decision--all in five seconds or less--and then move on to the best position for the next play.
Now, try to ask yourself these questions: Was the kind of awareness which is aware of abstract kinds of phenomena involved in your athletic endeavors? Was the kind of awareness which is aware of concrete entities involved in your athletic endeavors? Did the concrete mechanisms which mediate glandular secretion and muscular contraction respond to either or both kinds of awareness?

Then turn to the question: How did Plato and Aristotle know that there are two kinds of awareness? And two kinds of stuff called abstract and concrete?

Were the imperceivable somethings which brought a picture of the moon into your living room abstract somethings or concrete somethings?

Are the cytologists who are looking for traces of DNA and RNA in all "conscious cells" looking for abstract or concrete traces of consciousness or awareness?

Many physiologists have now demonstrated a functional connection between "conscious attention" and the behavior of a single muscle fiber, single motor unit, or a bit of arterial tissue. Is this functional connection abstract or concrete?

And, what about those conditioned worms that were ground up into conditioned wormburgers—and fed to unconditioned worms, which ingested the "conditioning," and henceforth behaved as conditioned worms? Was this "conditioning" abstract or concrete?

Many theorists are now speculating about the nature of awareness as such—and others are speculating about experiences called loving, or hating, or being involved in another person's life, or in a matter of concern. Are they speculating about abstract somethings which can not be explained in concrete terms? Or, do they think that such experiences really happen in concrete ways?

Here let me quote two paragraphs from a recent book by William Barrett, who is known to many of you as the author of Irrational Man. In this earlier book, you will remember, Barrett dealt with some of the existentially-oriented philosophers who disagreed with certain aspects of Plato's and Aristotle's thinking—but not with their conception of two mutually-exclusive kinds of phenomena, called abstract and concrete.

Now, in Ego and Instinct, which was published by Random House in 1970, Barrett (and Daniel Yankelovich) raise the "mind-blowing" question: Does the abstract/concrete dichotomy, as such, really exist within the universe of human experience? Or, was this dichotomy invented by the creative minds of Plato and Aristotle?

Here I have deliberately used the student phrase "mind-blowing"—because the following paragraphs, which you will find on pages 267 and 269, really did "blow my mind"—

...In short, the phenomenally given world, the world in which we live, is the root of whatever meaning and intelligibility human beings can attain to...
This world--the world of human experience

...contains all the rich items in man's everyday experience. The cardinal point here is that a religious experience, a delusion, a friendship, a rock, a worm, defecating, being born, feeling crowded, loyalty, automobiles, making love, taking a walk, dying, being depressed, going to the laundry, saying hello, questing for certainty, coveting your neighbor's wife, mountains, TV sets, being a comedian, waging war--all have exactly the same ontological status. No one is more real or less real than any other--all are really real...and no one item can a priori be reduced to any other item...and none can be explained a priori (assumptions about) psychic apparati and quantities of instinctual energy that lurks behind them.

Thus, to the question, "What is really real?" we propose an answer that locates reality in the raw experiential world of the individual, to be comprehended without a priori judgments as to what is primary or secondary, truth or delusion, concrete or abstract, cause or effect....

And so Barrett and Yankelovich are urging us to make "a fresh start philosophically"--by taking the "raw experiential world" of human existence and human experience as given--and then trying to describe being in general, and human beings in particular, in terms appropriate to the understandings of our own time.

Frankly, I do not quite understand all of the implications of this proposal--and neither does Barrett. Nonetheless, he now feels impelled to explore those implications--and so do I--and so do many thoughtful people who abandoned the doctrines of Plato and Aristotle long ago, without quite recognizing the fact that they could no longer think as Plato and Aristotle did in the 5th century B.C.

While I was trying to sort this out for myself, I happened to recall a poem called The Latest Freed Man --which I had known for many years without really understanding what Stevens was saying. Now, I think I do understand it, at least in part.... And, in part, I think I am now beginning to understand what I have been trying to say about so-called perceptual-motor behaviors for many, many years.

Tired of old descriptions of the world,
The latest freedman rose at six
And sat on the edge of his bed.

He said: I suppose there is a doctrine in this landscape...

But the moment's sun...overtaking the doctrine of this landscape...
Of him and his works I am sure.
He bathes in the mist like a man without a doctrine...

The light he gives...
It is how he gives his light...
It is how he shines, rising upon the doctors in their beds...
and on their beds...

And so the freed man said:

It was how the sun came shining into his room...
It was how he was free
To be without a description of to be...

It was how his freedom came...
It was being without description...

It was everything being more real, himself
At the center of reality...

composing his own doctrine of being...being his own description of being...being his own description of to be.

The task of composing a 20th century description of being in general and human beings in particular will be difficult beyond the difficulties of verbally-structured thinking--because we shall have to abandon all of the old abstract-concrete constructs which are imbedded in such words as essence-existence, concrete-abstract, body-mind, moving-sensing-feeling-perceiving-thinking-verbalizing, mental-physical, psychic-somatic--and academic vs non-academic.

But here we may be encouraged by a remark attributed to Albert Einstein: "I seldom think in words at all. I work out my own understanding first...and then, after I begin to understand my own understanding, I may try to explain it to other people by diagramming it, by saying old words in new ways, or by creating new methods of communication."

Perhaps that is about where we are now in our own attempts to understand something called perceptual and motor behaviors, experiences, and processes. We really do understand much that we know--or think we know--about such aesthetic-athletic experiences--but we can not explain this understanding in words which imply the co-existence of two kinds of awareness and two kinds of phenomena, called abstract and concrete.

This suggests a familiar quotation from Connoisseur of Chaos -- which I used on the title page of Movement and Meaning:

The squirming facts exceed the squamous mind,
If one may say so. And yet, relation appears...

A small relation spreading like the shape of cloud on sand...

Or, perhaps you would like some lines from Life is Motion -- which is about two joyous children who were

...dancing around a stump,
Celebrating the marriage of flesh and air...

celebrating being in general, and their own beings in particular, by being their own description of being--by being their own "description of to be."