

Helen Keller: Mind Over Instrumentation

by Meghan Rouillard

In his recent report, “What Makes Sense,”¹ Lyndon LaRouche refers to the case of Helen Keller (1880-1968), as a case which can provoke us to think about the relationship between the human sensorium and the power of the human mind. LaRouche writes:

I have emphasized, on this account, that if we treat experiences of sense-perception as being shadows cast by some unseen reality, as a now rich harvest of scientific instruments suggests, our attention is turned to the evidence of cases such as that of the celebrated case of Helen Keller, which warn us that a realm of five attributed human senses, is not the essential means on which the human mind should rely to steer efficient interventions into whatever the real world might be, that apart from a presumed direct and unique reality linking the world around us into the fruits of sense-perception as such. For example, could a person blind from birth, gain knowledge of the real world, which can be ultimately, as reliable, in effect, as an idea of the real world around us had by one with ordinary use of the five preferred senses?

Let us examine this, here, by exploring aspects of her case, which, although extraordinary, is the case of how a human being is capable of operating with an impaired sensorium.

Helen’s Senses

Helen’s account of her senses begins with the “seeing hand” of the “blind seeing,” the sense of touch, which she says is unique:

“My fingers cannot, of course, get the impression of a large whole at a glance; but I feel the parts and my

mind puts them together. I move around my house, touching object after object in order, before I can form an idea of the entire house. . . . It is not a complete conception, but a collection of object-impressions which, as they come to me, are disconnected and isolated. But my mind is full of associations, sensations, theories, and with them it constructs the house. The process reminds me of the building of Solomon’s temple, where was neither saw, nor hammer, nor any tool heard while the stones were being laid one upon the other.

“Touch cannot bridge distance,—it is fit only for the contact of surfaces,—but thought leaps the chasm. For this reason I am able to use words descriptive of objects distant from my senses. I have felt the rondure of the infant’s tender form. I can apply this perception to the landscape and to the far-off hills.”²

However, she says she is not in a position to say whether vision or touch is a better sense to have. Smell for her is “the fallen angel” of the senses.

“Touch sensations are permanent and definite. Odors deviate and are fugitive, changing in their shades, de-

2. Helen Keller, *The World I Live In* (1907), in *New York Review of Books*, 2003.



Helen Keller referred to the sense of smell as “the fallen angel.” She is shown here, ca. 1920, holding a fragrant magnolia flower.

1. Lyndon H. LaRouche, Jr., “Science’s Next New Undertaking: What Makes Sense?” *EIR*, Dec. 17, 2010; and <http://www.larouchepac.com/node/16836>

greens, and location. There is something else in odor which gives me a sense of distance. I should call it horizon—the line where odor and fancy meet at the farthest limit of scent. Smell gives me more idea than touch or taste of the manner in which sight and hearing probably discharge their functions. Touch seems to reside in the object touched, because there is a contact of surfaces. In smell there is no notion of relieve, and odor seems to reside not in the object smelt, but in the organ. Since I smell a tree at a distance, it is comprehensible to me that a person sees it without touching it.”

On the one hand, Keller clearly demonstrates and expresses the capability to “milk,” if you will, her other senses more than most of us are able to. Her descriptions of these impressions are surely more vivid than for those of us who are neither blind nor deaf. But studies have shown that she did not, in fact, have senses that were extraordinary relative to our own (those of us with vision and hearing, that is). This, and Helen’s own words, will point us to an important fact about the power of the human mind over the senses.

In 1928, University of Chicago neurologist Dr. Frederick Tilney spent time with Keller and tested the acuity of her senses of touch and smell, as compared with those of people who have optimal vision and hearing. The results were rather surprising. Helen’s sense of touch and smell registered as no more keen than average. Dr. Tilney, in his research paper, a comparative sensory analysis of Helen Keller and Laura Bridgman,³ had hypothesized that Keller’s sense of smell must have contributed significantly to her development; Bridgman lacked this sense, in addition to sight and hearing. Among other differences, Bridgman’s command of language was much less developed than Keller’s. The following is an account of Tilney’s test of Keller’s sense of smell:

“To measure the sensitiveness of Helen Keller’s olfactory nerves, Dr. Tilney prepared oils, such as wintergreen and asafetida, in various dilutions (also alcohol, peppermint, formaldehyde, eucalyptus), and asked her to tell him when she could notice any difference between various odors. The weakest dilution of alcohol that she could smell was one part in 16. She detected eucalyptus as weak as one part in 64, wintergreen one part in 128, peppermint one part in 1024, and asafetida one part in 2048. And this is about the sensitiveness of

the average person’s smelling equipment.”⁴

To Dr. Tilney’s surprise, his tests of Helen’s olfactory sense showed that it was no more keen than that of the so-called average person. Tilney cites a letter from Keller to himself, written at his request, on her impressions of the sense of smell. In it she referenced various passages from Shakespeare’s plays, Greek philosophers, and the Bible, in which she thought the sense of smell was referenced in an especially poetic way. He also tested the other sense which we might assume was a kind of supersense for Helen Keller, that of touch. He tested various aspects, such as localization, pressure, temperature, vibration, and found, in each and every case, that she scored only average.

An interesting side note regarding these tests, which alludes to another part of this report, is the reason given, at the time, to account for the discrepancy in “sense of direction” between Keller and Bridgman. This was a feature of the balance test. The action of spinning in a chair was only sensed by Keller by the wind blowing on her face. She experienced no other feeling associated with it. For Bridgman, there was more sensation involved, including dizziness, which Keller did not feel. Bridgman could also more accurately determine the difference between the direction she faced in the chair before and after being turned. Interestingly, Dr. Tilney attributed this difference in “sense of direction” to “a sense which would explain the mysterious homing of the pigeon and the straight, sure flight of the birds to their summer and winter homes. Experiments now underway at Columbia University indicate that this sense may prove to be a magnetic sense located in the retina of the eye. . . . Bridgman had a retina which may have functioned magnetically, even in blindness, to aid her a little in sensing direction. Whereas, Miss Keller, lacking this aid almost from birth, illustrates the negative side of the case.”

This is a provocative point to consider, but the results of these studies, and the further work since done on this, have not been explored much, and will not be addressed further here, but it should be kept in mind in the context of this entire report.⁵

Of course, we can question the kinds of tests which were performed, in terms of measuring the senses, but

3. Frederick A. Tilney, “Comparative Sensory Analysis of Helen Keller and Laura Bridgman,” *Archives of Neurology and Psychiatry*, 1928.

4. Emily C. Davis, “Helen Keller Shows Future of Brain,” *The Science Newsletter*, Vol. 14, No. 387 (Sept. 8, 1928) pp. 141-42, 147-48.

5. See Benjamin Deniston’s report on “Magnetoreception,” in this issue.

the results, and Dr. Tilney's ultimate conclusion, are interesting, nonetheless. On the one hand, we can ask whether the tests for the senses, in fact, test all of their possible dimensionalities. The possibility that they did not, and still do not, is alluded to in various other reports here.⁶ The other conclusion which can be drawn, is, in a sense, Dr. Tilney's own main conclusion, that, "Miss Keller's sensory organization for the primary conduction of afferent impulses thus does not appear to be different from that of the average run of humanity. Her sensory supremacy is entirely in the realm of the intellect."

He further specified that he thought that, "the great difference exists in her use of the senses by the development of her brain." He referred to the parietal lobe being potentially very developed, but this was not tested. The ability to test neuroplasticity was not available in 1928—for example, those investigations as to whether parts of Helen's brain, which would have been activated through the senses of sound and sight, were otherwise engaged. Tilney's suggestion that she appeared to be using more of her brain than we five-sensed creatures remains somewhat ambiguous as to its meaning, and it is a question we cannot answer now through studying her brain, of course.

Regardless, what we will be confronted with here, is that Helen's mind may have been more engaged and active than those of some typical seeing and hearing members of the population. How? Through some more active "higher brain functions"? Was it through the tools of irony and metaphor, those associated with human creativity? Whether or not Dr. Tilney spoke of this per se, it was clearly on his mind, and it is for you to judge based on the facts of her case.

The Analogy of the Senses

In addition to an added reliance on her senses of smell, taste, and touch, Helen also used what she called analogies, among these senses, to fill in for the missing senses, such as vision, whose impressions she adduced from a sense of taste. Today, we might call this a kind of synesthesia.⁷ She says of it:

"I understand how scarlet can differ from crimson because I know that the smell of an orange is not the smell of a grapefruit. I can also conceive that colors have shades, and guess what shades are. In smell and

taste, there are varieties not broad enough to be fundamental, so I call them shades."

"Through an inner law of completeness my thoughts are not permitted to remain colorless."

She is attacked sometimes for using such controversial imagery as "color" in her poetry. For, of course, according to such critics, she does not understand the right idea of color. Keller's obituary recounts the story of one particular reaction to her 1902 autobiography:

"Most reviewers found the book well written, but some critics, including that of *The Nation*, scoffed. 'All of her knowledge is hearsay knowledge,' *The Nation* said, 'her very sensations are for the most part vicarious and she writes of things beyond her power of perception and with the assurance of one who had verified every word.'"⁸

Sense perceptions clearly vary from individual to individual, another reason why a single visual perception, for example, is not reality. She agrees that her concept of color may not be the same as mine, or yours, but insists that her own thoughts do not lack that attribute. We may ask ourselves the question—was she tuned into some other dimensionality of these senses? LaRouche has now made this a provocative point to consider. But we can also ask ourselves how the power of the human mind itself serves to overcome these frailties. On this she says:

"Philosophy constantly points out the untrustworthiness of the five senses and the important work of reason which corrects the errors of sight and reveals its illusions."

Let us explore for a bit this philosophical debate.

The Mind's Role

In 1886, six years after Helen Keller's birth, Ernst Mach, associated with the positivist school of thought, said that the only thing which is, in fact, real, is the sum of our sense impression; the human soul is the receptacle for these impressions, nothing more. It is as though Mach would say, that when we stop seeing and hearing, we lose 40% of ourselves, since 40% of so-called reality is no longer accessible to us through our senses.

From Mach's *Contributions to the Analysis of Sensations*, "The Sensations as Elements: Antimetaphysical":⁹

6. See variously, the reports by Aaron Halevy, Sky Shields, etc., this issue.

7. See Oyang Teng's "Synesthesia," this issue.

8. <http://www.nytimes.com/learning/general/onthisday/bday/0627.html>

9. Ernst Mach, *The Classical Psychologists*, compiled by Benjamin Rand, PhD (New York: Houghton Mifflin, 1912).

“The primary fact is not the I, the ego, but the elements (sensations). The elements constitute the I. That I have the sensation green, signifies that the element green occurs in a given complex of other elements (sensations, memories). When I cease to have the sensation green, when I die, then the elements no longer occur in their ordinary, familiar way of association. That is all. Only an ideal mental-economical unity, not a real unity, has ceased to exist. . . . For us [the positivists] colors, sounds, spaces, times . . . are the ultimate elements, whose given connexion it is our business to investigate. In this investigation we must not allow ourselves to be impeded by such intellectual abridgments and delimitations as body, ego, matter, mind, etc.”¹⁰

We can imagine the 12-year-old Keller, taunting the misanthropic Mach: “Mind, mind alone, is life and hope and light and power!” Keller was clearly no philosophical student of Mach:

“From philosophy I learn that we see only shadows and know only in part, and that all things change; but the mind, the unconquerable mind, compasses all truth, embraces the universe as it is, converts the shadows to realities . . . though with my hand I grasp only a small part of the universe, with my spirit I see the whole, and in my thought I can compass the beneficent laws by which it is governed.”

In addition to her own words, Keller’s very existence shows Mach’s outlook to be problematic in several ways. On the one hand, we can ask ourselves whether losing the ability to perceive visible light really means losing vision entirely, and she herself questions this:

“Has any chamber of the blind man’s brain been opened and found empty? Has any psychologist explored the mind of the sightless and been able to say, ‘There is no sensation here?’”

But more important, reflect on the point which became a source of much contention between Mach and the behaviorist school in psychology, on the one hand, and the likes of Max Planck and Wolfgang Köhler, on the other. What is implied in the writings by these latter two

scientists, is that, that which we know to be real is first and foremost our own thoughts. Of course, we can test their efficiency; and the conceptions communicated by Helen Keller, about the nature of man, for example, resonate with us because they are true. Unlike the animals, we can create an efficient conception in the mind,

known to be efficient because it can be tested experimentally. And if it represents a true discovery, it would represent, in potential, a complete break from all that we have experienced. But, the main point missed by Mach, and the most glaring thing that he cannot account for, is that after one’s death, something real, in terms of something efficient, does persist. Something which has no sensual perceptions, but whose presence can be powerful in its effect.

As Helen Keller’s case illustrates and reveals to us, the reality which is most important, is that which we know through the mind. It is that part of us which lives on, and acts when we are no longer able to perceive.

Gottfried Wilhelm Leibniz, in a correspondence with the Prussian Queen Sophie Charlotte, elaborated why it is that, contrary to positivist belief, sense impressions are something other than truth which the mind gleans:

“Being itself and truth are not known wholly through the senses; for it would not be impossible for a creature to have long and orderly dreams, resembling our life, of such a sort that everything which it thought it perceived through the senses would be but mere appearances. There must therefore be something beyond the senses, which distinguishes the true from the apparent. But the truth of the demonstrative sciences is exempt from these doubts, and must even serve for judging the truth of sensible things. For as able philosophers, ancient and modern, have already well-remarked:—if all that I should think that I see should be but a dream, it would always be true that I who think while dreaming, would be something, and would actually think in many ways, for which there must always be some reason.



As a young girl, Keller, challenged the misanthropic Ernst Mach: “Mind, mind alone, is life and hope and light and power!”

10. Or, as one of Newton’s worst enemies pointed out to me, see the end of Newton’s *Principia*, to the same effect: “What the real substance of any thing is we know not. In bodies, we see only their figures and colours. We hear only the sounds. We touch only their outward surfaces. We smell only the smells, and taste the flavours; but their inward substances are not to be known either by our senses, or by any reflex act of our minds. . . .” See Michael Kirsch’s report on the history of empiricism at: <http://www.larouchepac.com/node/13834>

“Thus what the ancient Platonists have observed is very true, and is very worthy of being considered, that the existence of intelligible things and particularly of the Ego which thinks and which is called the spirit or soul, is incomparably more sure than the existence of sensible things; and that thus it would not be impossible, speaking with metaphysical rigor, that there should be at bottom only those intelligible substances, and that

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sensible things should be but appearances. While on the other hand our lack of attention makes us take sensible things for the only true things. It is well also to observe that if I should discover any demonstrative truth, mathematical or other, while dreaming (as might in fact be), it would be just as certain as if had been awake. This shows us how intelligible truth is independent of the truth or of the existence outside of us of sensible and material things. This conception of being and of truth is found therefore in the Ego and in the understanding, rather than in the external senses and in perception of external objects.”¹¹

Max Planck, who refers to Leibniz in his writings, used this same example to convey the same idea, over 200 years later, against the positivists such as Mach.

“I may dream all sorts of things during the night; but the moment I wake up the reality of my surroundings gives the lie to the dream. The empiricist however cannot logically admit that. For him there is no waking

11. G.W. Leibniz, “On the Supersensible Element in Knowledge, and “On the Immaterial in Nature,” *Philosophical Essays* (1702), trans. by Roger Ariew and Daniel Garber (Indianapolis, Ind.: Hackett Publishing, 1989).

reality; because the subjective sensation is the sole basis and criterion of knowledge. Now the dreamer during the dream believes automatically in its reality and, according to the empiricists, the wideawake person believes automatically in the reality of his sense-perceptions; but has no more reason than the dreamer has for saying that one set of perceptions is false and the other true. . . . All of this of course amounts to a repudiation of common sense; so much so that even the most advanced sceptics of this school find themselves constantly compromising between the claims of common sense and the purely logical conclusions of their own philosophic system.”¹²

He clarifies the fundamentally opposed outlooks himself:

“As long as we logically pursue the positivist teaching we must exclude every influence of a sentimental, aesthetic, or ethical character from our minds. . . .”

But, he elaborates, this alone leaves out entirely the role of hypothesis, which no one can deny has been the source of science’s achievements. He refers to the case of astronomy, as a science which has developed not simply because of the catalogued observations of individuals. The very nature of science as a study by mankind depends on recognizing the contradictory nature of various experiments done by various individuals, from which new conceptions must be developed. The unique conceptions of individuals, not simply their cataloguing of observations, is what has caused science and mankind to advance.

“If we look at [empiricism] purely from the viewpoint of knowledge it leads to a blind alley. . . . In order to escape from this impasse there is no other way open but to jump the wall at some part of it, and preferably at the beginning. This can be done only by introducing once and for all, a metaphysical hypothesis which has nothing to do with the immediate experience of sense-perceptions or the conclusions logically drawn from them.”

With Helen, we have a clear case of someone who thought of herself as having instrumentation, from which an image of reality could be gleaned through the mind; through generating a mental picture which can, potentially, be something completely efficient. She implies that her imagination is more actively engaged as a result of lacking the sense of vision. The particular

12. Max Planck, *Where Is Science Going?* (Woodbridge, Conn.: Ox Bow Press, 1981).

burden of vision, as she describes it, is that sensing persons are less clear of the fact that their minds are forming a picture of reality from impressions of instruments. Reality is not being imparted from the eyes to the mind, which is simply a receptacle. Rather, the mind is always working to construct this picture of reality, and perhaps more so when the impressions are not being perceived at the same time, as with an image which can only be built up over time. At least the primacy of the mind's role may be more clear to the perceiver in this case. She says that she will not claim who generates a more efficient conception, the seer or the blind, who sees through touch, but, as her own writings show clearly, this woman, who could not see or hear, had a real sense of the power of her own mind, and an efficient conception of reality, which we know because her thoughts can move us, and can generate powerful ideas within our own minds.

“Order, proportion, form, cannot generate in the mind the abstract idea of beauty, unless there is already a soul, intelligence to breathe life into the elements. Many persons, having perfect eyes, are blind in their perceptions. Many persons, having perfect ears, are emotionally deaf. Yet these are the very ones who dare to set limits to the vision of those who, lacking a sense or two, have will, soul, passion, imagination. . . . I, too, may construct my better world, for I am a child of God, an inheritor of a fragment of the Mind that created all worlds.”

She constructed an image of the universe outside of herself, and within herself, which, as we can attest from reading her writings, is not foreign to those of us who lack her impairments. We have suggested that Helen's senses, those she possessed, were not more powerful than our own. The question can be asked, to what extent was she also tuned more into dimensions of the senses than those associated with their characteristic impressions? Are there perhaps other aspects to which we are less sensitive, or simply less aware?

Cosmic Tuning

In a recent report, LaRouche, provocatively referred to the possible implications that the “extra senses” of animals had for the case of Helen Keller:

“As in the case of bird migration dependent upon a feature of cosmic radiation, there are a large number of types of cosmic radiation, within the relevant ranges, which have such a function specific to one or another type of living entity of either plant or animal life.

“One might ask, what might be the relevance of this latter consideration to the case of Helen Keller?”¹³

Some of Helen Keller's thoughts on this subject are provocative, and I think can be thought of in a new light in this context, in that they can point the mind in the direction of thinking about what, in fact, she was “tuned into,” potentially from this standpoint of cosmic radiation. I think it is fair and appropriate to leave as a question provoked by her own words:

“Critics delight to tell us what we cannot do. They assume that blindness and deafness sever us completely from the things which the seeing and the hearing enjoy, and hence they assert we have no moral right to talk about beauty, the skies, mountains, the songs of birds, and colors. . . . Some brave doubters have gone so far even as to deny my existence. . . . I throw upon the doubters the burden of proving my



What was Helen enjoying when she “heard” the tenor Enrico Caruso sing, and was moved to tears? Vibrations? Or something more?

non-existence. When we consider how little has been found out about the mind, is it not amazing that anyone should presume to define what one can know or cannot know? I admit that there are innumerable marvels in the visible universe unguessed by me. Likewise, O confident critic, there are a myriad sensations perceived by me of which you do not dream. . . . Certainly the language of the senses is full of contradictions,

13. Lyndon LaRouche, “The Global Crisis Now at Hand,” 2010, larouchepac.com

and my fellows who have five doors to their house are not more surely at home in themselves than I . . .”

This quote from Shelley’s *Prometheus Unbound* is also referred to by her, respecting her condition:

My wings are folded o’er mine ears,
My wings are folded o’er mine eyes,
Yet through their silver shade appears,
And through their lulling plumes arise,
A shape, a throng of sounds.

Is it really the case that the deaf cannot hear music? Keller says of the voice of a soprano, “When I read the lips of a woman whose voice is soprano, I note a low tone or a glad tone in the midst of a high, flowing voice.” What was Helen enjoying when she “heard” the tenor Enrico Caruso, and was moved to tears? Vibrations? Or something more?¹⁴ Perhaps it involved a kind of sixth sense, as LaRouche has referred to, which perceives other characteristics of performed Classical music than simple audible sounds.

The critic from *The Nation* who reacted so strongly to Keller’s use of the concept of color would probably be sent into a rage in response to the following, by Keller, on the work of the artist:

“In their highest creative moments, the great poet, the great musician cease to use the crude instruments of sight and hearing. They break away from their sense moorings, rise on strong compelling wings of spirit far above our misty hills and darkened valleys into the region of light, music, intellect.”

But could we deny that this woman herself was not a veritable poet? However, perhaps the most provocative question yet, is, how she developed her language capability, which seems to suggest a means that surpasses that of sense perception.¹⁵

The Human Element

We can examine this question through reflecting again, now, upon a question posed by Lyndon LaRouche a couple of years ago: How did Keller know that her teacher was a member of the same species as herself? The answer does not lie in some kind of group communication signal, like that which we see in the



Before meeting her teacher Anne Sullivan (right), Helen described herself as living in a “no-world,” in which she responded mainly to sensory stimulation. She is shown here in July 1888, at age 8.

cephalopods or the mantis shrimp.

As a young girl, before being introduced to her teacher, Anne Sullivan, Keller’s relationship to the outside world was extremely limited. She describes herself as living in a “no-world.” She says she responded mainly to sensory stimulation and desire, and did not understand that dogs and other animals were much different than she was. She only realized later that they did not have the cognitive powers which she says she only later developed—recognizing and reflecting on the fact that her earlier responses to these desires and sensations were not something fundamentally human.

Her role as part of a human species was made increasingly clear to her through the process of human interaction and communication, and this is clear from her own telling of her story. This question became more clear through specific kinds of interactions based on language. For example, being presented with a paradox, in language, as presented by her teacher. This word, which you thought you understood, also means

14. See Sky Shields’ report on Auroral hearing, and Aaron Halevy’s report on Digital vs. Analog music, this issue.

15. Lyndon LaRouche, “The Sixth Sense,” *EIR*, Jan. 14, 2011, and <http://www.larouchepac.com/node/17156>

this! She describes various experiences of this kind, where a flash of insight, almost like a flash of light, thus expanded her capability to communicate, and also, to think. When we learn that the word “love” can be used to describe an idea about the entire human species, and not simply the feelings about one person, we have a case of this. We make sense of this through a process of challenging our old idea, and this can put us at ease, in a certain way, through then knowing a more truthful idea. Perhaps an example of why Keller said Greek was her favorite language, had to do with the more precise words, in this language, to indicate the different meanings in this case.



“I cannot always distinguish my own thoughts from those I read, because what I read becomes the very substance and texture of my mind,” Keller wrote. Helen (left), at age 18, “reading” with Anne Sullivan.

This process of overthrowing old conceptions is actually what any young child experiences learning a language, and the child’s universe expands through this process.¹⁶ Dr. Tilney had also concluded that the main explanation for the overall difference in the development of Laura Bridgman and Keller, lay in the different approaches to introducing them to language and to society. Bridgman, who only used 50-60 monosyllabic sounds, which were not words, but were known to those who knew her, led a life which was much more isolated, and her education was halted at 20 years of age.

It would seem that, in order to explain the clear quality of genius, and the ability to overcome a sensory handicap in a person like Keller, if it were not able to be explained by senses or supersenses, as Dr. Tilney concluded, then perhaps it was primarily through something like paradox, something which involves the contradiction between experiences. The ability to

16. Jean Sherwood Rankin, “Helen Keller and the Language Teaching Problem,” *The Elementary School Teacher*, Vol. 9, No. 2 (October 1908), pp. 84-93.

comprehend a paradox is what arms us with the highest powers of language, which can be learned precisely because we can grasp ideas which bridge single sense impressions, and can develop through such a means.

Let us continue to dwell on this, because it would seem that the answer lies beyond sense perception or information: We can ask ourselves how one would teach a blind and deaf child concepts which were not merely the names of objects. Initially, when Helen was taught the word “to think,” it was a word which her teacher Anne Sullivan wrote on her head while Helen was beading a necklace. Keller said this made sense. But how was she then able, later in life, to wield the power of this word in such a

different context? For example, we have these much more advanced uses of the word thought:

“I cannot always distinguish my own thoughts from those I read, because what I read becomes the very substance and texture of my mind,” or, “Just as the wonder-working mantle of the Nautilus changes the material it absorbs from the water and makes it a part of itself, so the bits and pieces of knowledge one gathers undergo a similar change and become pearls of thought,” or, “Greek is the loveliest language that I know anything about. If it is true that the violin is the most perfect of musical instruments, then Greek is the violin of human thought.”¹⁷

Clearly, we can only bridge this gap through conceiving of the mind resolving new paradoxical uses of this idea over time. Here we have a hint as to a kind of characteristic of the mind which is transcendental to the declarative statements of information presented to it.

17. Helen Keller, *The Story of My Life* (1902) (New York: Bantam Classic Reissue, 2005).

Sullivan reveals in the journal that she kept throughout her years of teaching Helen, a Platonic view of the human mind, as opposed to the outlook which she found to be more prevalent among educators. Keller herself said that a deaf-blind person could find special meaning in the writings of Plato. Sullivan wrote that the more typical and cynical outlook reflected the idea that “Every child is an idiot which must be taught to think.” Sullivan’s own experience in teaching Helen taught her otherwise, and she approached the task, from the beginning, with confidence in another view. She wrote:

“It is as easy to teach the name of an idea, if it is clearly formulated in the child’s mind, as to teach the name of an object. It would indeed be a herculean task to teach the words if the ideas did not already exist in the child’s mind....”

She insisted on speaking to Helen in complete sentences, so that she could “catch from context the meaning of those words she did not know,” and did not overly explain words which were new: “Little by little the meaning will come to her.”

Informed by this outlook, Sullivan had the confidence that there was an activity of the mind which superseded sense impressions, here, in the form of communicated words. As we have seen, Helen herself was later able to wield the power of language, by which we change our self-conception as a species. As a human species, we, unlike the animals, have this power to hone the powers of the mind, and to increase our power over nature. Unlike the animals, who do this through cleaning their instruments, as Keller herself says of our role, “All men shall bring mind and soul to the control of matter.”

In reviewing the facts of the case of Helen Keller, it seems that it is our ability to grasp various levels of irony which permits the true development of the human species, in science, and in language. For without that, there is no pathway by which a blind and deaf girl could develop a broader concept of love, for example, another of the first concepts she learned, than that associated with her first experience of it. But this same word took on a far greater meaning over time, which became as great as mankind and his garden, the Earth, of which she spoke and wrote, but whose characteristics she was never able to sensually perceive in the same sense as one with five optimally functioning senses. Let us keep this case in mind as we explore the differences and similarities between the human and animal sensoriums in the rest of this report.