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MAX MÜLLER’S REFUTATION OF DARWIN: A MISSING LINK IN THE DESCENT OF LINGUISTIC RELATIVITY FROM HUMBOLDT TO WHORF

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Perhaps you recall a scene in Through the Looking-Glass, which was first published in 1872, in which Alice finds herself in the Wood with No Names. She and a fawn are walking together, trying to remember what they are called. Alice and the fawn experience a closeness that is destroyed as soon as they leave the wood and remember their names, likewise recalling that fawns are supposed to fear humans (Carroll 1996:155). This scene could be described as a very simple (indeed nonsensical) rendering of the idea of linguistic relativity often attributed to Benjamin Lee Whorf. Without language, in this case, nouns, Alice and the fawn do not know where they belong in the universe or what the relations between them should be. With the words, their coded relationship is reinstated, and their intimacy is lost.

Lewis Carroll’s Alice books are very widely known. Less well known is that Friedrich Max Müller (1823–1900), a comparative philologist of German heritage and training, lived and worked at Oxford at the same time as Charles Dodgson, the Oxford logician behind the Carroll pseudonym. Müller¹ was a great popularizer of ‘the science of language’ (see below) and propounded a theory of language which included the idea of linguistic relativity as we understand the term today, as well as many other ideas which he borrowed and altered to some extent from his German teachers and predecessors, among them Wilhelm von Humboldt. It is probable that Müller influenced Dodgson, as his popular Lectures on the Science of Language were first delivered publicly at Oxford in 1861 and 1863 in two series, and first published in 1862 and 1865, respectively, roughly a decade before Through the Looking-Glass. But that is the topic of a different paper². The present paper investigates the extent to which Müller influenced Benjamin Lee Whorf in developing his theory of linguistic relativity and proposes to add modestly to the ongoing discussion of Humboldt’s influence on Whorf by positing Müller as a key link in the line of descent of Humboldt’s theory.

Rollins (1880:49–52) was the first to suggest that Müller influenced Whorf, and subsequent literature has, for the most part, reiterated his basic claim (Koerner 1990:120, Joseph 1996:390–91, Lee 1996:21). Yet as Lee (1996:21–22) notes, ‘the degree of this influence has yet to be traced with any finesse’. Apparently, the topic has failed to seem worthy of investigation to others, and Rollins’s treatment, a mere three pages, is too superficial to be definitive. Briefly, his argument can be summarized as follows: First, Rollins links Müller and Fabre d’Olivet as ‘Theosophic opponents of sensationalism’ (1880:49). He then points out the Kantian roots of Müller’s theory, and he notes that for Müller ‘language and thought were inextricably related’ (ibid:50). Finally, he claims that Müller

attempts to justify Christian faith to a skeptical age in his Gifford Lectures, and that he
does so largely using linguistics as a science that proves faith: ‘linguistics might prove
to be a science which would lead to what Müller called an experience of “intelligence
and bliss”’. Thus, Müller (with Fabre d’Olivet) inspired Whorf to use linguistics to jus-
tify faith scientifically (ibid: 52). A number of these points are taken up in the following
discussion, as they are worthy of further examination.

Lee (1996:14) makes a convincing case that Whorf has often been ‘misread, unread,
and superficially treated’⁵. The same can be said of Müller, and just as Lee argues that
many of the false interpretations of Whorf are based on a ‘dichotomized conception
of language and thought’ (ibid: 85), so are the false interpretations of Müller based on
this dichotomy. When the parallels between Müller’s and Whorf’s theories are out-
lined below, the comparison should offer further support for Lee’s analysis of Whorf’s
theory complex as an approach to language in which language and thought are inex-
tricably intertwined and interdependent processes.

The question of influence is always a difficult one, because statements acknowledging
direct influence are relatively rare, and a lot of influence functions unconsciously.
Though Whorf does not overtly cite Müller as an influence, we can state with cer-
tainty that he read several of Müller’s works, including Chips from a German Work-
shop (read 1925–26), Science of Language, and Sanskrit Grammar (both read 1926) as
Also listed in 1926 is William Dwight Whitney’s Oriental and Linguistic Studies (OLS).
This is important and relevant here because OLS contains articles which are very
critical of Müller’s theory, just as Müller’s Chips volume 4 contains articles criticiz-
ing Whitney and defending his own theory against Whitney’s criticism. The fact that
Müller’s and Whitney’s works refer to one another in the volumes mentioned and the
chronology of Whorf’s reading suggest that Whorf may have read OLS as a result of
having found references to Whitney in Chips 4. Thus, this listing of books allows us
to establish with some confidence that Whorf was familiar with the major strands
of Müller’s thought from an early stage in his intellectual development, and specifi-
cally, that he was familiar with the controversy between Müller and Whitney which
was aired in articles reprinted in Chips 4 and OLS. This fact is significant, as the feud
revolved around Müller’s attack on Darwin’s theory of evolution, the main arguments
of which appear in altered form in Whorf’s mature linguistic writings⁴.

A closer look at the Müller-Whitney controversy is warranted here in order to
clarify just what Whorf read in Chips in 1925 because in that year, he, too, wrote a
refutation of Darwin’s theory of evolution entitled ‘Why I Have Discarded Evolution’,
which was mailed to Thomas Morgan in late October, though it was never published
(Rollins 1980:20). It seems that Whorf may have been inspired by Müller’s arguments
to attempt his own refutation.

The Müller-Whitney feud took place between 1874 and 1876. Müller’s refutation of
Darwinism was based on his identification of language and thought. The feud began
when Whitney published an attack on Müller’s refutation entitled ‘On Darwinism

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approached Darwin in an effort to get these views published in England. This attempt failed. George Darwin, the son of Charles, wrote an article entitled ‘Professor Whitney on the Origin of Language’, wherein he described Whitney as ‘the first philologist of note who has professedly taken on himself to combat the views of Professor Max Müller’ (quoted in Müller 1890:420). George Darwin summarized Whitney’s arguments in order to defend his father’s theory (Sutcliffe 2001a:262). Several articles back and forth then ensued. These were eventually reprinted in Whitney’s *OLS* and the fourth volume of Müller’s *Chips*. Specifically, the final two articles of the fourth *Chips* volume contain Müller’s reactions to Whitney’s criticisms: ‘My Reply to Mr. Darwin’ (417–55) details G. Darwin’s use of Whitney’s arguments, and ‘In Self-Defense: Present State of Scientific Studies’ (456–532), despite its title, is actually a meticulous examination of Whitney’s writings to reveal fundamental similarities between Müller and Whitney, particularly on the points that Whitney had argued were so different in the dispute over language and Darwinism. It is likely that Whorf read these two articles prior to writing his own refutation in 1925.

Müller’s ‘quarrel with Darwinism’ (Knoll 1986) is also important to the present discussion because it is precisely in Müller’s arguments against Darwinism that we can find the greatest number of parallels with Whorf’s later linguistic theories. Significantly, these parallels do not appear in Whorf’s own refutation for the most part, but rather, they come out in his mature linguistic writings. These parallels include, as I show below, an essentially Kantian conception of human understanding: the identification of language and thought, which correlates with the linguistic relativity principle, the fundamental linguisticity of man’s existence; the reconciliation of science and faith by means of linguistic theory; and the relevance of linguistics to all human knowledge. Significantly, however, I do not believe there is a connection to the Theosophical Society, as Rollins maintains.

1. Müller’s theory of language and his refutation of Darwinism. First, we need to examine Rollins’s claim that Müller was a Theosophist. Whereas Whorf’s connection to The Theosophical Society is clear (Lee 1996:21), Müller’s is less so. According to the The Theosophical Society’s homepage, it ‘is a worldwide association dedicated to practical realization of the oneness of all life and to independent spiritual search… founded in New York City in 1875 by Helena P. Blavatsky, Henry S. Olcott, William Q. Judge, and others’ (Theosophical Society 2003). The only evidence Rollins (1980:51) provides to substantiate his claim that Müller was a Theosophist is the fact that he published his Gifford Lectures in book form in 1893 ‘with a significant title, *Theosophy: or, Psychological Religion*’. Other writers who claim Müller was a Theosophist (or a theosophist) all ascribe this information to Rollins and accept it as truth (Lee 1996:21, Joseph 1996:390, Koerner 1990:120).

In point of fact, when we look at Müller’s ‘theosophical’ book closely, it appears that he was actually not a Theosophist, that is, not in the sense associated with The Theosophical Society of Madame Blavatsky. He explains in the preface his reasons for
adding the term *theosophy* to the title of the book, which was not part of the title of his lectures:

It seemed to me that this venerable name [theosophy], so well known among early Christian thinkers, as expressing the highest conception of God within the reach of the human mind, has of late been so greatly misappropriated that it was high time to restore it to its proper function. (1893: xvi)

We must examine the historical context of Müller’s words here to understand the full purport of his statement. As noted, The Theosophical Society was founded in 1875. In addition, Madame Blavatsky’s *The Secret Doctrine*, today still a foundational work for The Theosophical Society, was published in 1888 and proved exceedingly popular. Müller thus would seem here to be eschewing the use of the term *theosophy* in this new movement, which was rapidly evolving and spreading at the time⁶.

Rollins (1980:50) is more correct in suggesting that Kant’s *Critique of Pure Reason* was crucial to Müller’s understanding of language. In fact, Müller’s whole theory of language, as well as his refutation of Darwin’s theory of evolution, was based upon a Kantian understanding of mind. This is evident in *The Science of Thought*, in which Müller (1887:127–51) spends an entire chapter explicating Kant’s philosophy. Moreover, Müller translated Kant’s *Kritik der reinen Vernunft* into English in 1881 because he felt that it was so fundamental to all knowledge, and yet underappreciated and underread in Great Britain (G. Müller 1902:107; Sutcliffe 2001a:80). Significantly, Müller also felt that Darwin would not have developed the theory of evolution if he had been familiar with Kant’s philosophy of mind:

Such is my faith in Mr. Darwin’s intellectual honesty that I should not have been surprised at his giving up his theory of the descent of man from… some kind of animal, if he had been acquainted with Kant’s *Critique of Pure Reason*. (quoted in Knoll 1986:10)

According to Müller’s interpretation of Kant, the world cannot be known or understood directly, but must always be filtered through *a priori* categories of understanding. In Rollins’s words, Kant ‘[proved] the interpenetration of mind with reality’ (1980:50). Although things in themselves exist (Kant’s *Dinge an sich*), they are unknowable in their true state. Rather, the sensations caused by things in themselves must be perceived by the individual, thus becoming percepts, and the percepts in turn must be related to other percepts or to general categories of mind by the individual in order to be understood. Müller (1887:286) focuses on Kant’s categories of space, time and causality. In the end, being related to other percepts or to these general categories, percepts become concepts. In consequence, percepts and concepts are inseparable, and being inseparable, they are identical in Müller’s use of the term. As Müller (ibid:28, see also Sutcliffe 2001a:51) explains, the term *identity* refers to two things or processes that cannot exist independently of one another.
Müller extends Kant’s categories of understanding to language, and in so doing, he asserts the identity of language and thought in the same way as he postulated the identity of percepts and concepts. As with Kant’s other categories, Müller views language as a filter through which we see the world, and which we cannot escape. Thus, like Whorf, Müller propounds a theory of linguistic relativity: language influences the way in which we understand the world. In Müller’s logic, just as percepts become concepts by being related to one another, concepts become terms in a language by being related to it, simultaneously becoming identical with those terms in the sense of being interdependent and inseparable from them. In other words, language and thought are identical. Rollins (1980:50), as noted above, also remarks upon the inextricable relation between language and thought for Müller.

Müller’s identification of language and thought then provided the foundation of his refutation of Darwin’s theory of evolution as applied to mankind. If language and thought were identical, as he felt he had shown, then the one could not exist without the other. There is no language without the reasoning mind of man, nor is there man without language. Thus, man’s nature is fundamentally linguistic: ‘was den Menschen zu Menschen macht, ist die Sprache: wie schon Hobbes sagte, homo animal rationale quia orationale’ (Müller 1872:27). Thus, the identification of language and thought precludes the possibility of the gradual development of language, which would require that man be able to reason before he could talk.

Where, then, is the difference between brute and man? What is it that man can do, and of which we find no signs, no rudiments, in the whole brute world? I answer without hesitation: the one great barrier between man and brute is Language. Man speaks, and no brute has ever uttered a word. Language is our Rubicon, and no brute will dare to cross it. This is our matter of fact answer to those who speak of development, who think they discover the rudiments at least of all human faculties in apes, and who would fain keep open the possibility that man is only a more favored beast, the triumphant conqueror in the primeval struggle for life. Language is something more palpable than a fold of the brain, or an angle of the skull. It admits of no cavilling, and no process of natural selection will ever distill significant words out of the notes of birds or the cries of beasts. (Müller 1862:354, emphasis added)

Again, Kant’s theory of human understanding provided the justification for Müller’s view of the non-gradual development of language. For Müller, Kant’s category of causality renders humans incapable of conceiving true origins because even the very beginnings of something must be perceived as having had a cause (Müller 1887:149, Sutcliffe 2001a:83). Where we cannot find a cause, we assume a Creator as the cause. Therefore, in Müller’s mind, we can posit the sudden emergence of language as a true origin beyond human understanding, a gift from God, beyond the reach of science. Müller’s application of Kant’s theory of mind to his theory of language thus protected his faith, as I have argued elsewhere: ‘Science, Müller reasons, dependent as it is on
the structure of the human mind and on human language, will never be able to break beyond the limits of that mind, thus leaving room for even the most scientific soul to believe in God as part of the unknowable outside of language’ (Sutcliffe 2001a:83).

Finally, as language is so intertwined with human understanding, Müller gave the Science of Language the highest position among the sciences of the world, when he declared in his lecture at the University of Strassburg in 1872 that no field of scientific endeavor could escape its influence (1872:10). He divided the science of language into three stages including the empirical, which comprised grammatical analysis, the classificatory, which placed individual languages into larger classes, and the metaphysical stage. It was the metaphysical stage, however, which would deal with ‘the great questions which underlie all physical research, the questions as to the what, the whence, and the why of language’ which he was really interested in (Müller 1862:81; Sutcliffe 2001a:58).

2. PARALLELS TO MÜLLER IN WHORF’S THEORY OF LANGUAGE. Rollins’s contention that Müller inspired Whorf to use linguistics to justify faith scientifically (Rollins 1980:52) now seems probable when Müller’s refutation of Darwinism is examined, particularly given the fact that Whorf wrote his own refutation at the time he read Müller’s, as shown above. Whorf’s refutation does not share many arguments with Müller’s, but the mere fact that Whorf wrote his own refutation shows that he, like Müller, felt that the special status of man was somewhat threatened by the development of the theory of evolution.

Whorf’s mature linguistic writings, on the other hand, contain significant parallels to most of the ideas about language here attributed to Müller. Whorf held an essentially Kantian conception of mind, and he recognized the interdependence of language and thought, as well as the linguistic relativity that results from it. Moreover, like Müller, Whorf viewed language as fundamental to all human activity and therefore considered linguistics relevant to all human knowledge. I now turn to Whorf’s own writings to establish these parallels.

The principle of linguistic relativity itself is the clearest indicator of Whorf’s Kantian basis, although Whorf was most likely unaware of his connections with Kant’s philosophy. In ‘The Punctual and Segmentative Aspects of Verbs in Hopi’, Whorf’s description of this idea sounds particularly Kantian:

[This discussion of Hopi grammar] is an illustration of how language produces an organization of experience. We are inclined to think of language simply as a technique of expression, and not to realize that language first of all is a classification and arrangement of the stream of sensory experience which results in a certain world-order, a certain segment of the world that is easily expressible by the type of symbolic means that language employs. (Whorf 1964:55)

Like Müller, Whorf viewed language as a filter through which we view the world, not unlike Kant’s categories of understanding.
The second parallel, the interdependence of language and thought, follows as a natural consequence of the first. If language shapes our view of the world, it shapes our thoughts as well, as Whorf (ibid:85) states, ‘Language does not just communicate thought but functions in its very inception’. Müller described this interdependence as the identity of language and thought, which brought a great deal of criticism upon him because it has most often been misunderstood. Significantly, Sapir, whose influence on Whorf is widely attested, described the interdependence of language and thought in a fashion very similar to Müller’s when he wrote, ‘Language and our thought-grooves are inextricably interrelated, are, in a sense, one and the same’ (quoted in Joseph 1996:368). This surprising parallel between Müller and Sapir supports the interpretation of Müller’s term identity as interdependence and suggests that Whorf would have understood Müller in this same way.

The uniqueness of human language, as well as the fundamental linguisticality of man’s existence, can be found in Whorf (1964:220) when he says, “There is no need to apologize for speech, the most human of all actions. The beasts may think, but they do not talk. “Talk” ought to be a more noble and dignified word than “think”. This quotation is strikingly similar to Müller’s that we saw above in which ‘man speaks, but no brute has ever uttered a word’. For Whorf, as for Müller, humans, precisely as talking beings, are more noble and dignified than animals.

Finally, Whorf’s view of the relevance of linguistics to all the sciences is revealed in his article, ‘Languages and Logic’ wherein he shows the dependence of modern science on the structure of Indo-European languages.

Western culture has made through language, a provisional analysis of reality, and without correctives, holds resolutely to that analysis as final. The only correctives lie in all those other tongues which by aeons of independent evolution have arrived at different, but equally logical, provisional analyses. (Whorf 1964:243–44)

Linguistics thus can reveal the relativity of modern science, and, at the same time, provide the closest thing to a ‘cure’ for our merely provisional analysis of reality by giving science the perspective (see Whorf 1964:218) of all the various provisional analyses of reality with which to construct a more complex, and thus, more true, analysis. As he says earlier in the same article,

… science can have a rational or logical basis even though it be a relativistic one and not Mr. Everyman’s natural logic. Although it may vary with each tongue, and a planetary mapping of the dimensions of such variation may be necessitated, it is, nevertheless, a basis of logic with discoverable laws. (ibid:239)

Again, it is linguistics that can discover those laws and provide a planetary mapping of the different logics of the world’s cultures, making linguistics indispensable to all other sciences.

Crucially, Whorf’s linguistic relativity principle, like Müller’s application of Kant’s categories for him, created a realm of the Ideal or Unknowable outside of language such that Whorf could preserve his faith and view science and religion as working in concert. Rollins argues that Whorf was religiously motivated throughout his life and in his linguistic writings. His descriptions of some of Whorf’s early polemical writings, most of which remain unpublished, make his case particularly convincing. Early on, before Whorf began to study language, he had already decided that science and religion need not be in conflict, because science could never fully comprehend the universe. As he wrote in his novel of ideas, The Ruler of the Universe, which he began writing in 1924, ‘We live in an unknown universe. How vast, how dark are the abysses around the little circle of knowledge that is lit by the light of the lamp of science…’ (quoted in Rollins 1980:41). Once he came upon the principle of linguistic relativity, he could reinforce this failure of science to comprehend the universe fully by pointing out the relativity of its logical basis. Another early example of his defense of faith comes in an editorial to the New Republic published on December 9, 1925, in which Whorf ‘ridicul[ed] the idea of a conflict [between science and religion]’ (Rollins 1980:13) by arguing for what we would today understand as ‘intelligent design’:

There is a purpose in nature, and it is seen in static nature. The discontinuous and unit-wise structure of the whole universe, the concentration of matter into foci, the absence of any gradations between its major forms, the rigid restriction of matter to a definite small number of kinds (the chemical elements), the fixed set of properties possessed by each element, the discrete stepwise structure of all matter, of electricity, of light, even of energy—in these and other things the universe bears those unmistakable earmarks which, possessed by any article, would tell us that it was a manufactured article. (quoted in Rollins 1980:14)

In 1925, Whorf upheld his belief in a creator with reference to the patterned relations of the universe familiar to him from his education in chemistry. His exposure to linguistics did not change his mind. Rather, he extended his understanding of the patterned relations of the universe to include the patterns of language, as he states in Language, Mind and Reality:

Speech is the best show man puts on. It is his own ‘act’ on the stage of evolution… But we suspect… that the order in which his amazing set of tricks builds up to a great climax has been stolen—from the Universe!

The idea, unfamiliar to the modern world, [is] that nature and language are inwardly akin. (Whorf 1964:249)

If the patterning in the universe is cause to posit the existence of a creator, then the patterning in language provides even more cause, thus aligning Whorf’s defense of his faith closely with Müller’s attribution of the origin of language to a creator. This
parallel is even more compelling when one considers that Whorf’s letter to *The New Republic* postulating intelligent design was written at the time he was reading Müller’s *Chips*, which contained Müller’s argument.

3. CONCLUSION. HUMBOLDT AS MÜLLER’S SOURCE. To conclude, most of the parallels found here between Whorf’s and Müller’s linguistic theories can also be found in Wilhelm von Humboldt’s theory of language, including the principle of linguistic relativity, the identity or interdependence of language and thought, the fundamental linguistic nature of man’s existence, and the importance of the study of language to human understanding. A tremendous amount has been written on the subject of Humboldt’s influence on Whorf with many researchers suggesting at least indirect links between Whorf and Humboldt, as well as Herder and Hamann¹⁰. Elsewhere, I have outlined the specifics of Humboldt’s influence on Müller (Sutcliffe 2001b), and Koerner (1990:120), too, has linked Müller to the Humboldtian tradition. Thus, I hope to have shown here that Müller, having strongly influenced Whorf’s linguistic ideas, provides another crucial link in the line of descent from Herder and Humboldt’s ideas to Whorf’s¹¹.

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¹ ‘Max’ is often considered to be part of Müller’s surname, especially in the United Kingdom, but this use is not consistent in the literature. I have used ‘Max Müller’ in the title for clarity but just Müller in the rest of the paper for simplicity.

² I have written an article exploring this topic in greater depth, forthcoming in the *Henry Sweet Society Bulletin*, entitled ‘Friedrich Max Müller’s Lectures on the Science of Language Made Silly: Lewis Carroll’s *Alice* Books as a Reaction to Max Müller’s Popular Lecture Series?’.

³ Lee (1996:18) reports, for example, that there was a conference in 1953 to evaluate the value of Whorf’s hypothesis, but that ‘the tenor of much of the debate was negative and deeply disappointing’ to Whorf’s admirers. Moreover, the report of the conference became well known and has increased ‘a tendency to read Whorf’s work superficially or to rely on others’ interpretations and judgments’.

⁴ See also ‘The Müller-Whitney Controversy’ (Chapter 9 in Alter 1994:484–548) for a detailed description of these articles and a historical analysis of their disagreement. (This will appear in revised form as chapter 8, ‘The Battle with Max Müller’, in Alter’s forthcoming volume.)

⁵ I use ‘Theosophist’ capitalized to refer to members of The Theosophical Society and without capitalization to refer to Müller’s classical use of the term.

⁶ Every reference to the word *theosophy* throughout Müller’s book is used in a similar manner. For example, he explains the term *psychological religion* as encompassing ‘all attempts at discovering the true relation between the soul and God’, which is the true meaning of theosophy. But theosophic now ‘conveys the idea of wild speculations on the hidden nature of God’ (Müller 1893:91). See further Müller 1893:92, 106, and 541.
Humboldt also considered language and thought to be identical in this sense, for example, when he wrote, ‘[Die intellektuelle Thätigkeit] und die Sprache sind… Eins und unzertrennlich voneinander’ [Intellectual activity and language are one and inseparable from one another (my translation)] (quoted in Sutcliffe 2001b:26). Please see Sutcliffe 2001b for a more complete discussion of this and other parallels between Humboldt and Müller.

Humboldt, too, rejected the idea that language could have evolved gradually, precisely because he viewed language and thought as such intertwined processes (Sutcliffe 2001b:26).


For example, Penn notes that Sapir wrote an article on Herder’s ‘Ursprung der Sprache’ in 1907 (1972:54); Whorf’s thought is connected with Humboldt’s via Boas, someone he acknowledged openly as an influence (Koerner 1990:119), who Koerner (1990:113) claims brought Humboldt’s ideas to America from Germany with him in 1886.

This argument directly opposes Joseph’s contention that there is little evidence to support Whorf’s links to the Herder-Humboldt line, whereas there is ‘abundant evidence for theosophy and other brands of mysticism,’ whereupon he uses Müller as an example of this (1996:391).

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