Duality of thought and language: an outline of original research / by Emil Sutro.

Contributors

Sutro, Emil, 1832-1906. Sutro, Emil, 1832-1906. Duality of voice.

Publication/Creation

London: Dryden House: Kegan Paul, Trench, Trubner, 1904 (Printed in the United States for Emil Sutro)

Persistent URL

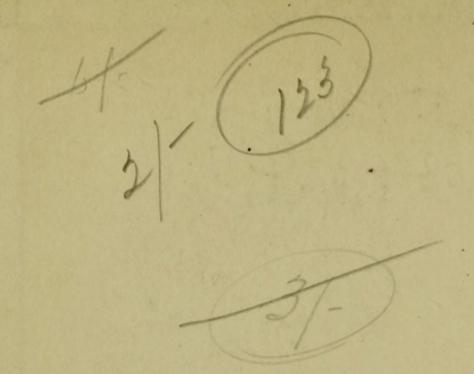
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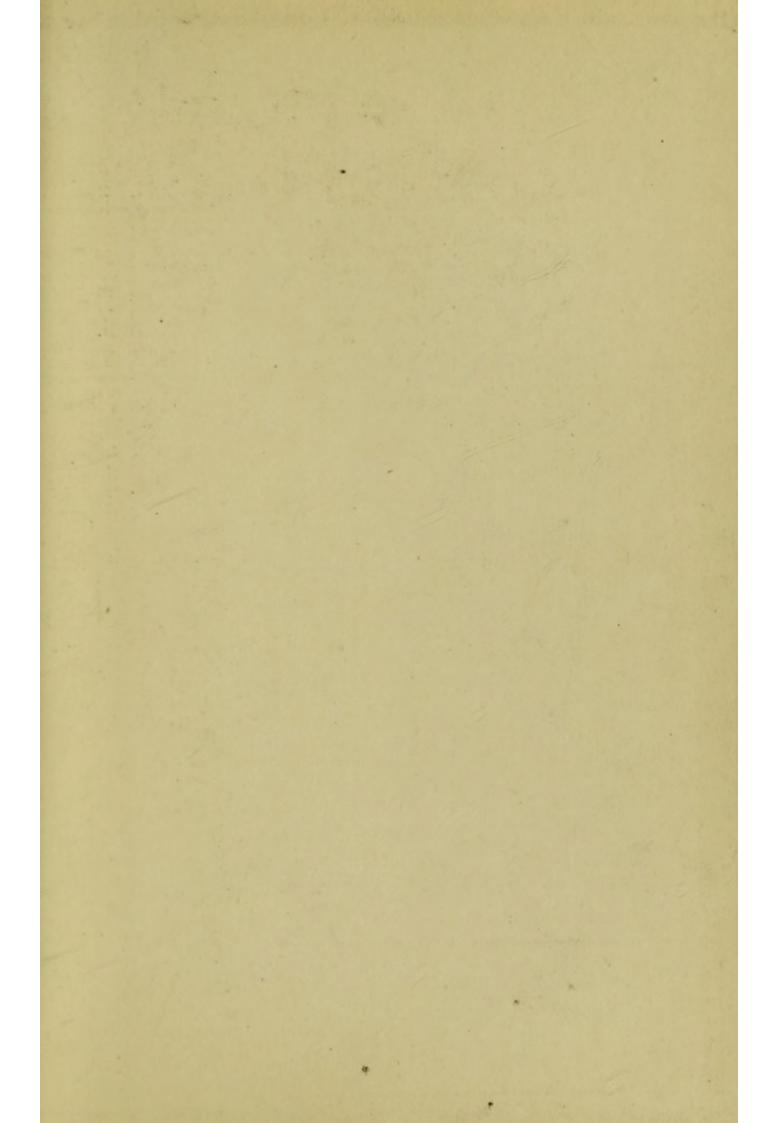
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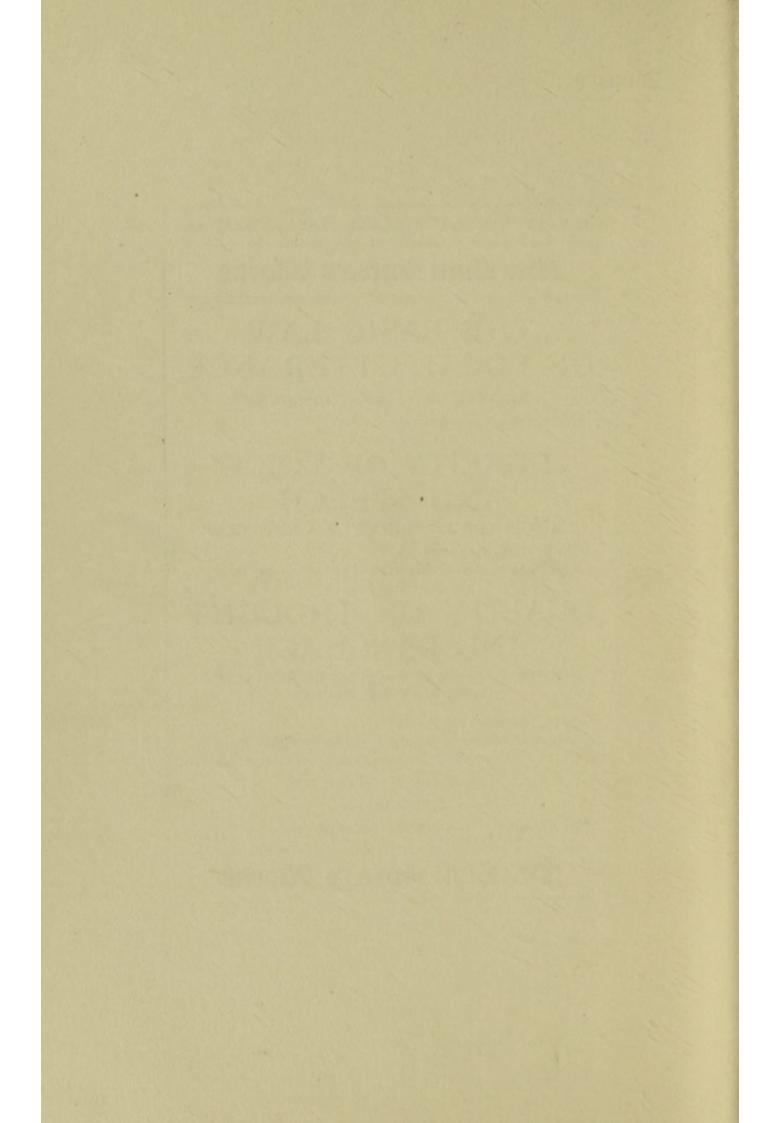
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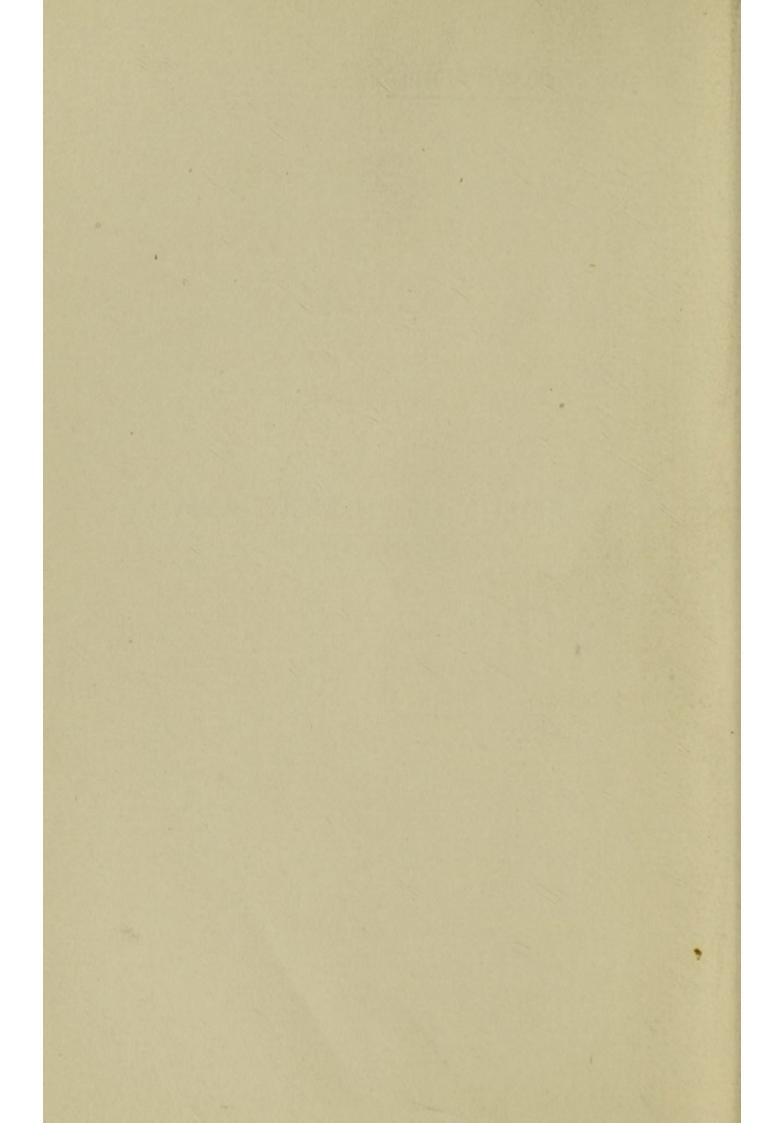
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II.—DUALITY OF THOUGHT AND LANGUAGE



DUALITY OF THOUGHT AND LANGUAGE

AN OUTLINE OF ORIGINAL RESEARCH

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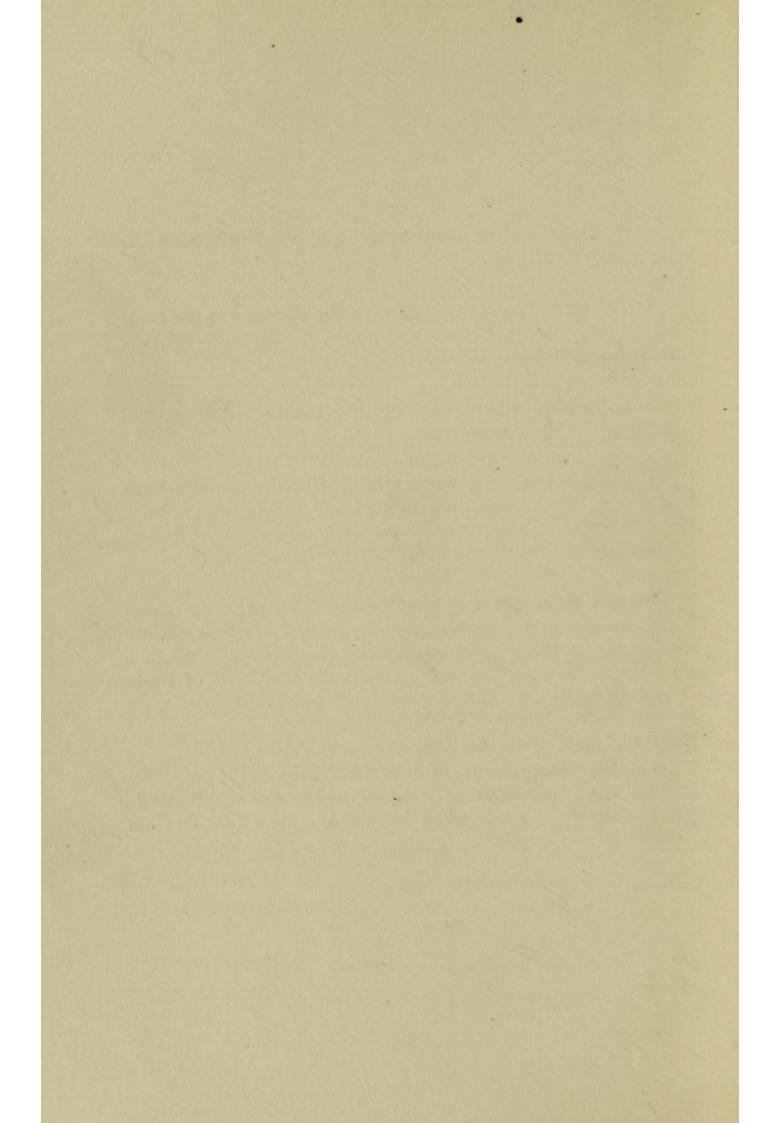
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- "Was wahr ist, ist vernuenftig, und was vernuenftig ist, ist wahr."—HEGEL.
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- "His mind is, as it were, coeval with the primary form of things; his imagination holds immediately from nature, and "owes no allegiance" but to the elements—he sees all things in himself."—HAZLITT on WORDSWORTH.
- "I see from morning to night and from night to morning, the spiritual. Bodies are all spiritual. All words are spiritual—nothing is more spiritual than words. Whence are they? Along how many thousands and tens of thousands of years have they come?"—Walt Whitman.
- "To some of us our epoch seems the dark stagnation of the night. But the very chill of the shadow is the prophecy of the day; and to those who are awake the rosy light is unmistakable. Their work has begun, for a new day has dawned."—GRIGGS.



PREFACE

WHILE I have in this work succeeded in again viewing various important questions from a new standpoint, I trust the reader will defer passing judgment thereon until he has given careful consideration to my arguments. It is not, in any sense, my desire to create a sensation at the expense of the truth. Though the reader may not be able to verify all my assertions by experiments of his own (for reasons specially explained in this book), I trust it will nevertheless be admitted that the "reasonableness" of my statements is largely in my favor as against views on these subjects held heretofore.

My clear-seeing, however, must not be attributed to higher natural endowments, but simply to the advantage I possessed in the discovery of the voice of the œsophagus and the consequent insight obtained into man's dual nature. But for this insight I would have been as helpless in matters of this kind as any one before me. In consequence thereof, however, and in spite of no little discouragement, I was induced to give all my time to the study of these questions ever since.

The fundamental idea which has been ascertained consists in the fact that there is a correlation existing

between the various phases of the human spirit and those constituting language, more particularly the *spoken* language; and that, but for this correlation, there could not be any language at all; this correlation being of the same general order as that existing between body and mind.

By penetrating into the inner being of the spoken language, I found that it owes its existence to a series of correlated physical and psychical factors of the same order as those constituting man, and that language, consequently, is a symbolical representation of human life.

This knowledge has enabled me to infuse a "soul" into the rigid conditions represented by ex-parte phenomena apparently constituting our physical and psychical existence. This soul, consequently, represents a tie which unites the various sciences known as Anatomy, Physiology, and Psychology into one all-embracing science. As all these sciences emanate from the entity man, there must also be a way to again reduce them to that entity.

In spite of the large amount of time devoted to the present work (it is five years since "Duality of Voice" made its appearance), it would have required a great deal more time still to have produced it in such a manner as to have given me complete satisfaction. Hence I must ask the reader's pardon for the imperfect, and in many cases almost abrupt mode of treatment of some of the subjects, and the want of system in the general arrangement. My excuse is comprised in the fact that there still remain a great number of important subjects for me to communicate. I may

have to state these in an even more abbreviated form, rather than run the risk of not being able to communicate them at all, which at my time of life would be apt to be the case should I attempt to state them more fully.

There remains one duty for me to perform, namely, of saying thanks to those, who, either directly or indirectly, have assisted in the performance of my task. These matters having been evolved out of my inner self, there is no especial work I can name as having been of more particular benefit to me than another. What has aided me most, directly, is the dictionary.

Indirectly, I have been encouraged by various friends, and by those who have favorably reviewed my book "Duality of Voice," as enumerated at the end of this book. I also owe thanks to those who assisted in the translation and publication of the German edition of "Duality of Voice," which has been more instrumental in making my investigations known than anything else, and those also who in this country and abroad kindly helped forming the Physio-Psychic Society, intimately connected with the furthering and perpetuating of my work.

What shall I say of her, however, who during all these years, unsustained as I have been by my labor, has yet, cheerfully, hopefully, borne the burden with me? Whose clear vision and sunny temperament have dispersed the mists often gathering around me, and who has persistently led me away from a too arduous prosecution of my task, thereby making it possible for me to sustain my vitality, so necessary

to the carrying on of my work up to the present time. Thus my thanks are above all due the brave comrade of my life, my high-minded and devoted wife.

They are also due to my son, through whose labor, in another field, I have been enabled to give all my time to my work, which, though it has from a material standpoint remained unrewarded, has been recognized as valuable by many.

I would, finally, advise those of my readers not acquainted with my previous work to read the "Appendix" to this book and the "Consensus of Press Opinions" at the end of the same, which will afford them an insight into the general scope of my investigations as published previous to this book.

New York, May 1, 1904.

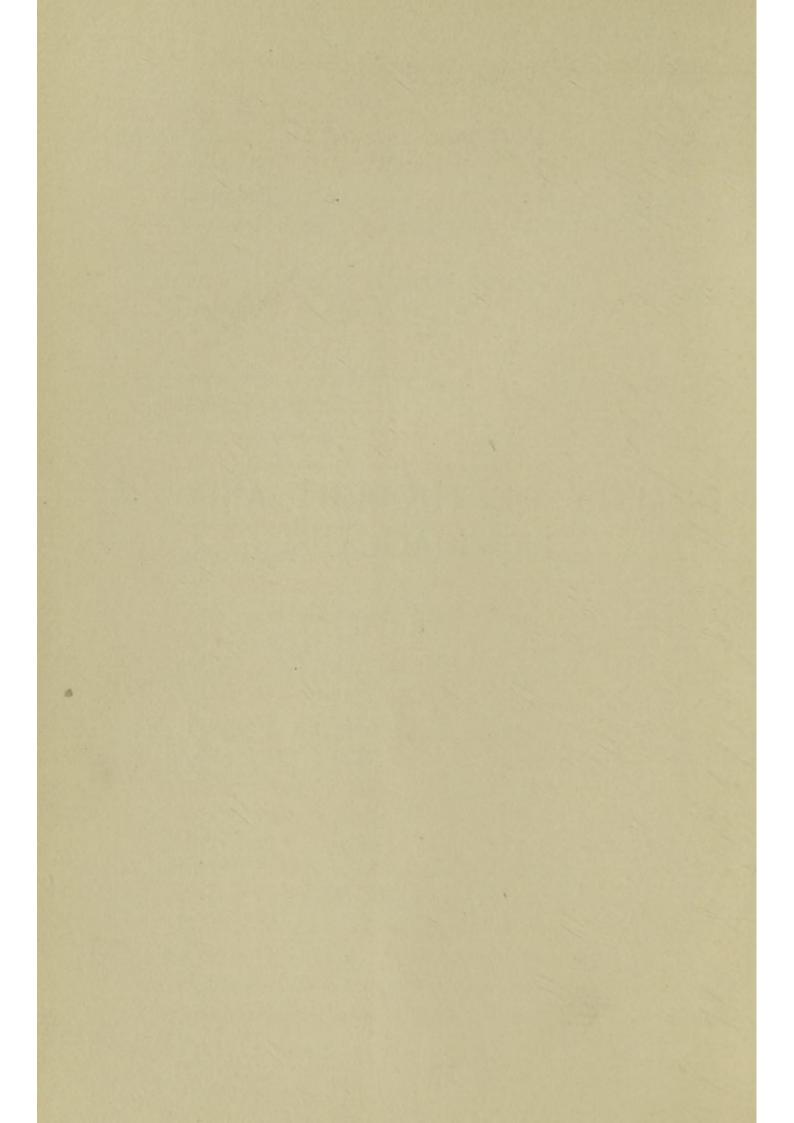
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DUALITY OF THOUGHT AND LANGUAGE





DUALITY OF THOUGHT AND LANGUAGE

INTRODUCTION

THIS is the third book I have published as a result and in consequence of my discovery of the voice of the œsophagus, already conceded by many to be the most important and far reaching physio-psychical discovery ever made.

While day after day witnesses new discoveries in mechanics and the sciences, that which is nearest to us and concerns us most continues to be shrouded in as great a mystery as ever. We know little more about our own existence and the occult agencies which establish and uphold it, than our ancestors did at the dawn of the history of our race. For centuries scientists have attempted to probe into the mystery of life by investigating matter. I have attempted to investigate the *spirit* which is imbedded in the essence of language, and in doing so have succeeded in probing into the mystery of life.

The discovery of the voice of the œsophagus owes

its origin to a oneness of purpose, a constant endeavor and effort during many years towards a single end, namely, the attempt to master the idiomatic expression of the English tongue by a German and from a German standpoint. And this, as it has since turned out, has been the cause of my success. No great thing has ever been attained by any other means. During all these years, previous to my discovery, perhaps thirty or forty, I did not know I was doing anything out of the ordinary, but I can see now that during all that time I was "tuning" the entire instrument of my being into another direction from the one in which it had its natural bent and inclination.

The attempt to produce those foreign sounds in the correct manner was taking something away from my own being and giving it to another in the act of coming into existence. This "new life," so to say, was a "spiritual fœtus" growing to maturity within me and to remain with me after attaining its full growth.

This straining over into new fields of vocal sounds was done at the expense of the harmonious production of my own (German) idiomatic expression.

I ceased to speak German for a while with the full development of its vocal sounds. It was a severance of something complete into its component parts. The two voices, which while speaking our native tongue naturally blend into one, had become separated, and while they would still join for the purpose of speech, it was done with an effort. It was only after completely mastering the foreign idiom that both my German and English speech ceased to be strained and once more assumed harmonious proportions.

In other words, before this last result was attained I had got into the habit of using "simple" sounds in the production of vocal utterance in both languages. The two voices simply *sustained* one another, and even in my own language had ceased to *reinforce* each other. I spoke and sang from the part of one hemisphere only. This mode of speaking is usually denominated "throaty"; still, a throaty voice may be perfectly pure if it is confined to a single register.

When I made the discovery of the voice of the œsophagus, and so many other discoveries in its wake, I was astonished beyond measure that they should not have been made centuries ago. After having obtained this fundamental knowledge the rest came to me easily and naturally. It was not difficult thereafter for me to trace sounds and words and sensations of various kinds to separate and very definite parts of the body.

While writing "Duality of Voice" I consequently called upon the reader to try this, that and the other, in proof of my assertions. It was all so perfectly natural and easy to me, that I never thought others would have any difficulty in doing precisely what I was doing. When some of those who had honestly tried to make these experiments failed to obtain the same results, however, it set me to thinking, and it was only then that it occurred to me that I had in the course of time become "educated" to a degree of knowledge in these matters which enabled me to successfully make experiments which others, who had not been thus "educated," could not make.

This in short is the explanation and at the same

time the apology I have to offer to the readers of my books, as far as they have found readers and students, for putting them to the trouble of attempting to make experiments, which in the nature of these things they were not prepared to make. In consequence of this new insight I have, as a rule, in this volume refrained from calling upon the reader to make experiments, thinking it to be futile and presuming that those fit to make them would find means and ways to do so in their own way.

A further explanation of what enabled me to make these experiments is the following: While during so many years acutely listening to the production of the sounds of my own voice my entire attention was turned towards things of my inner being to the exclusion of such as came to me from without.

In this manner my subconscious being was developed to such an extent that during these experiments it prevailed over my conscious. We are so constituted that during our awaking moments our conscious being prevails over our subconscious, our impressions coming to us through our senses. Our thoughts are of the outer view of things, hence we cannot gain a proper conception of their inner being. Our conscious and subconscious existence, however, being of a correlative nature, we may become educated so as to be able to reverse our nature in such manner that its conscious part takes the place of the unconscious and the unconscious that of the conscious.

While thus constituted, which we are while making such experiments as I have made, we exercise our faculties subconsciously and with the ability of minutely observing their inner mode of production. Anyone schooling himself to thus observing will at once comprehend how I have been able to press into matters which have heretofore been considered as occult.

While such observations are being made our faculties are exercised by the use of the *inner* or obverse side of our organs of sense, and thus the subconscious with us becomes conscious for the time being.

Everyone, of course, constantly exercises his faculties in this manner while *thinking* of something of the *past* of which he has become conscious through his senses, while *I* exercise them for things of which I become conscious at *the time being*.

One other subject must be mentioned. I have been asked time and again why I do not confine myself to one subject, more particularly that of vocal utterance. While this was my intention in the beginning, I soon learned that vocal utterance was not a superficial accomplishment, a mere function, perhaps, but one intimately connected with our innermost nature; that it was a faculty, in fact, a matter of the soul more than of the body, in which both body and soul have their share, however, and that thus our entire being was involved in it. Hence to arrive at the true nature of the voice we must come down to first principles. "When I speak and you listen, my soul communes with your soul, and thus my thought becomes your thought. And when you reply to what I am saying your soul becomes part of my soul, and thus your thought becomes my thought." Hence to ascertain the true essence of vocal utterance we must first attempt to find out how the immaterial thought is

translated into the material sound of speech; or in other words, what takes place when the soul uses the body to make known its thoughts to another soul, either through living speech or through speech represented by letters.

The translation of the thought into the spoken word, though apparently instantaneous, is a process involving a number of both vital and spiritual issues. Hence, vocal utterance is a question of life and of the spirit, and to attempt to explain it from any other standpoint is and must be futile.

Never having been viewed from this standpoint before, nothing has ever been ascertained that has enabled one person to assist another to better his speech, or song, or which, in other words, has been *really* instructive. You may tell a pupil what his vocal utterance *should* be, by repeating the sound, word or note for him, over and over again, but unless you can explain to him what he must *do* to make it the same, he will not succeed in the attempt.

I will not say by this that the ear may not guide him through instinct into the right direction, but instinct is not knowledge, and the instances where this is successfully done are rare. The fact that it is next to impossible for a grown person to learn to speak a foreign language idiomatically correct, yea, to even thus speak a single word, no matter how often he may try, should be sufficient proof that by simple imitation the production of correct speech-sounds cannot be learned; that it takes something more than what can be learned through the ear to accomplish that object. As far as the attempt is concerned to obtain any knowl-

edge on this subject through the study of the supposed material instrument of the voice, I have fully proven the folly and the futility of such attempts in my book, "Duality of Voice." (See also appendix to this book.)

No one would assume that by the most minute study of the brain, the supposed instrument of thought, anything could be learned as to thought production, yet it is assumed that through a similar study of the larynx, the supposed instrument of the voice, valuable information as to voice production can be obtained.

I have said that for a true insight into voice production we must ascertain "how the immaterial thought is transformed into material sounds of speech."

This at first sight will appear as an attempt at something impossible of accomplishment. Yet there is a mode in which this can be done; namely, through the study of the true essence of language.

Whatever can be learned from such a study must be regarded as the fundamental principle upon which all teaching of vocal utterance should be based. In other words, as the word spoken or sung, is thought incorporated, the manner in which this incorporation takes place is the knowledge we must acquire to enable us to ourselves bring about this transformation or incorporation, in our own way, and just as we desire it to be brought about. We can thus learn what should be done to speak or sing correctly, and for this purpose to guide voice production into its proper channels. Speech or song consisting of words, we must go to the root of words to find out the *modus operandi* by which thought is transformed into the word.

It will be admitted that there has been but little progress made, even in our progressive age, as to the true inwardness of our nature. The reason is obvious; all studies have been based upon what could be learned from outward appearances or phenomena, none from inner causes or noumena, which produce the former. They have been made from the standpoint of what could be seen, heard, touched, smelled and tasted, and not from that which *enables* us to see, hear, touch, smell and taste. Hence their futility and our continued inability to enter into the domain of the spirit by positive observation; no means having ever been discovered by which we could observe the manner in which the spirit influences the body or in which the body is instrumental in influencing the spirit.

I have discovered such a means in the study of the true essence of language, more particularly in that of the true essence of language in vocal utterance. In vocal utterance correlative spiritual and material agencies are represented. The spiritual agency is thought, the material agencies are the sounds through which we express our thoughts in the shape of words. Any one succeeding in ascertaining in what manner our thought, which is our spirit, is converted into words, composed of and expressed by material sounds of speech, has found a true entering wedge into the innermost secrets of our nature. Every attempt heretofore made has been from either a purely spiritual or purely physical standpoint. As living speech represents these issues in combination or correlatively, a true knowledge of its essence leads us directly into the road of a true knowledge of life.

THE OLD TEACHING AND THE NEW.

The voice has been a desolate creature living in a hut, which was filled with the foul exhaled air from the lungs, and in which it led a precarious existence, subsisting on such things as mucous membranes, muscles, sinews and the like. An abject creature, a pitiful existence.

Two flimsy membranes spanned across the throat were seen to vibrate in sympathy with vocal sounds. Presto, the conclusion was arrived at, that they, moved by the expired air, were the agents productive of vocal utterance.

Is it claimed that these bands, either the true or false ones, think? That they link the vocal sounds they are supposed to produce into words representative of ideas? Or is it claimed, perhaps, that nerves connected with the brain, influence them into this accomplishment? If not, what is the claim? Surely not that the expired air does the thinking. Yet there must be some way in which this is done. Vocal sounds, both vowel and consonant, are void of meaning. You can do nothing with "d" and "o" just by themselves, until you link them together into a word, when you can "do" or express that which represents a thought of action. Vocal sounds are like the numerals which are meaningless until you state what they denote, what they stand for. You can link ever so many of the latter together, but unless there is a \$ sign in front of them, or pounds of weight, or number of men or

something connected with them, they are but so much rubbish.

It is not claimed, moreover, that the vocal cords are productive of all vocal sounds, but only of the vowel sounds. Yet you can do nothing with either element by itself, the vowel or consonant, until it coalesces with the other. Vowels and consonants are the soul and body of speech and can never be severed when they are to represent an idea. They represent the "dual nature" of speech. I shall show that even when a word is represented by a single vowel sound, the consonant element, though not bodily represented, is and must be present in the intonation to sustain the vowel element. We cannot live by the air alone, we must have solid ground under our feet, as well. The vowel sound is the immaterial air we breathe, the consonant the material earth we stand upon.

But they say song is of a different order from speech and not subject to the same laws, but rather to universal laws appertaining to all people and languages alike. Song, however, is composed of words and these words are representative of ideas, else they would be meaningless and worthless. We could not produce song if we were confined to vowel sounds; we might at most learn to warble like birds, but could not express a single idea.

But I go further. I deny that the vocal cords of the larynx all by themselves are productive of vowel sounds or that they can thus be made to produce such sounds. They co-operate with other agencies in the production of such sounds. But there is something far above and beyond these sounds which applies them to the production of speech. The human voice in vocal utterance is not a thing that can be represented alone, all by itself; there is in fact no such a thing as a voice eo ipso, as already stated; the voice being a correlative emanation from our entire being. It is the most complex thing and cannot be taken out of this complexity and represented as a unit. No one can write about the voice except in connection with vocal utterance; for, what is the voice apart from vocal utterance? Yet the great majority of writers on the voice have disregarded this connection.

To write about the voice in such a manner as to give another person useful information that can be applied to the perfection of such person's utterance, we must go down to the bottom of things; we have to descend to the very fountain-head of our nature and elucidate it out of our entire being, physical as well as spiritual.

Then, and only then, shall we be able to arrive at a basis from which rules may be deduced that will be helpful to others. I have arrived at such rules and shall lay them before the reader—rules that will be a real help and are worth more than ever so many singing lessons' by the "best masters." These rules are the outcome of this complexity. For in this, as in other sciences from complexity, we arrive at simplicity, and rules are complexity made simple. We must be able to gather all the threads into our hands to be able to arrive at a given proposition. Lose one and we may go astray.

There was not any complexity heretofore, as all was supposed to be simple; aye, too simple; neither was there any result.

Think of it; the expired breath possessing the faculty of exciting a bit of mucous membrane into the possession of the outflow of our soul. Two wonderful factors, these vibrating strings and air deprived of its oxygen. Have we come to that? Are these our scientific achievements, the result of centuries of thought and endeavor? A string and the expired breath, the faculty and motive power of the highest performance in our nature!

Vocal cords are sinews, possessing no qualities superior to other similar things in our composition. These sinews, however, are placed where they are influenced by numerous other physical factors and where they in turn again influence these factors, these factors themselves meanwhile being influenced by agencies of a higher than a mere mechanical, physical or chemical order.

The voice is both subjective and objective. It is an instrument of the highest order, after whose model all other musical instruments have been constructed. This model has been furnished by our sense of hearing. While through this sense we have been able to build objective instruments, we must furnish the subjective power which enables us to play upon them.

This is done with rare skill and knowledge by many musicians. When the objective and subjective parts of the instrument, however, as is the case with the voice, are combined in ourselves, we must not only thoroughly comprehend our instrument, but also comprehend the motive power which we are called upon to exercise upon it. It is another thing, of course, to possess a good voice as a gift of nature. In that case

all these things are done intuitively. Yet even the most gifted singers are often at a loss how to proceed for the purpose of obtaining good results.

What are we, anyway, we mortals, that the sun may shine upon, and the breath of eternity pervade generation upon generation of the wisest, truest and best, and yet our vision and our judgment be so warped that our highest possession should be judged to exist in a mere jugglery, an infant's plaything, a mechanical toy?

Are we better than the augurs of old, or the astrologers of the Middle Ages, or than any and all the brainless and soulless and heartless believers in necromancy, fetishism1, voodooism, Negroes, Indians and the lowest of mankind, to deal in such rubbish as our musical journals are full of even at the present day?

What do teachers teach who base their professional knowledge upon such absurdities? I could open any one of the aforesaid musical publications almost at any page and quote them ad nauseam. I take it for granted that this is unnecessary. It makes me ill to think of them, and I cannot comprehend how men of brains can be guilty of perpetrating them.

This has reference to pretty much all that is said "scientifically" regarding speech, song, elocution, defective speech, stammering, etc. I have no desire to use such strong language, but as what I have pre-

[&]quot;Fetish, a material object believed to be the dwelling of a spirit; an object of worship among savages."-Standard Dictionary.

viously said so moderately has been disregarded, I want to see if a blunter speech cannot arouse those against whom it is aimed to at least some kind of a reply. When a weaker instrument will not avail, a sledge-hammer sometimes does the work most effectually.

It would be better, a thousand times, to have no science, than one which serves but to confuse, disturb and pervert the natural stream and outflow of expression. When there was no "science," those who were gifted by nature with a talent for song exercised it in conformity with their instinct; now they are hampered by thought, which exercises its influence in leading it into all manner of wrong direction. It is often said that the best physicians are those who give the least medicine; so are those teachers the best who in default of true knowledge let nature work out its own salvation and give their pupils the least "science."

By and by we shall have a *true* science; then the teacher will have his brain and hands full turning out magnificent singers.

The fact of thinking of the physical instrument of the voice is a detriment, as it clogs the voice and hampers it in the freedom of its outflow. The thought should be of the soul, that is, the meaning underlying the expression as embodied in the word and sentence. In addition and as an assistance in producing pure sound, the voice being of dual nature, the part of the body also should be thought of from which the expression emanates.

The special parts as yet being unknown, it is best to simply remember that vocal utterance is divided

between what physically represents the soul and the body, trachea and œsophagus. A line should be drawn as between the two, which may extend from their actual dividing place in the oral cavity outwardly, or from the outer inwardly, in conformity with the fact whether the sounds are outgoing or ingoing; that is, whether the thought is of things immaterial or material. Such line should not be an air-line, however, but be equal to a division of the tongue into an upper and a lower half and embrace the entire body thereof.

To prove that the trachea is not the only tube producing vocal utterance, it is but necessary to attempt to speak or sing through it all by itself, when it will be found impossible to utter a vocal sound. Personally, I have no difficulty in separating the two voices. I can sing or speak or whisper through either trachea or œsophagus by themselves, but the product is not vocal, but simple utterance. This proves the correctness of my assertion that after the larynx has been removed by a surgical operation, the voice which remains is of the œsophagus, a fact to which I have repeatedly called attention.





VOWEL SOUNDS.

VOWEL sounds are spiritual elements, which as such have no meaning. They do not possess any special value until formed into words which have a spiritual meaning. What benefit then is it to make these elements the mainstay and basis of instruction?

I do not wish to say that when perfectly understood and properly produced, that is by constantly thinking of them during their production, the singing of the scales may not be of benefit—on the contrary; but they are not generally understood and are not always properly produced.

The same distinction which we must make as between breathing for vital and spiritual purposes, we must make as between mere voice production and production of vocal utterance. The former belongs to our functions, the latter to our faculties. When a vowel is used all by itself it conveys a meaning and stands in place of a word. In that sense, however, vowels are but rarely sung as exercises.

Besides, the *same* vowel sounds, apparently, are never the same in different languages. The Italian "a" is a different thing from the German or English or French "a." Hence the Italian teacher's "a" is

not the same as his English pupil's; nor can the latter produce it, no matter how often he may try. Imitation will not avail when a person has arrived at maturity and his vocal utterance is produced through set and unalterable channels. It is a well-known fact that people cannot acquire the idiomatic expression of another tongue after they have arrived at maturity. While the anatomy is the same with all men, the manner of setting it into motion for the purposes of vocal utterance differs with different nations. In infancy, when all its parts are still plastic, through our "mother tongue," the entire machinery is given an impetus in a certain direction and this impetus prevails during life. Hence every nation speaks its own language with the most perfect naturalness and ease, but cannot acquire the same qualities in the production of other tongues, for which the impetus is in some other direction.

If this fact obtains in connection with speech, why should not the same fact obtain in connection with song? Song being speech produced more measured and soulful, we do not detect the wrong expression as readily as we do in speech, wherein the expression is more compact and utterance follows upon utterance in quick succession. This new science, however, may be able to teach us how to produce the true idiomatic expression of foreign languages, both for speech and song, in addition to that of our own. By this means even if we cannot learn to fully master the proper intonation of foreign tongues we can learn to come near mastering it.

The singer is not a being apart from other mortals.

He but "speaks" in a more measured and soulful way. To accomplish the best results he must start from the simplest form of expression, but the expression must come from the soul always, even in his so-called "vocalizes," as we are unable to properly express a vocal sound without first thinking of it.

As to singing in foreign languages, that is a thing greatly to be discountenanced, unless those languages and their sound production have at least been fairly understood.

This, I know, is the greatest stumbling block in the way of the introduction of this new science. Singers want to sing the songs of every nation and want to sing them at once. These exotics, however, except with the highest talent, which sometimes accomplishes great results simply by intuition, are produced at the expense of the singer's natural abilities; nor are they when thus "forced" ever properly produced.

This takes the entire subject out of the hands of empiricism and raises it to the dignity of a science. Every other branch of knowledge is based on principles acknowledged to be correct the world over; else such science would have no standing; it would be a futile, unrecognized endeavor. It would not exist as a science. Vocal art is devoid of any fundamental principles acknowledged to be correct. Hence it has been open to every inroad of speculation, none of which ever hit the mark, none of which ever came near hitting it; consequently the entire subject is at sea.

In his ardent desire to obtain a correct knowledge of the principles underlying vocal utterance, man, despairing of his ability to do so by means of its spiritual motive power, has always grasped at what appeared to be its material instrument. While our material being is represented by a thousand visible and tangible factors, is it likely that our spiritual being, far more complicated in its nature, should be represented by a couple of mucous membraneous strings? Is it not more likely that all these countless material things known to us in anatomy should be the instruments, the agents, which by some motive power constantly exercising its influence over them, but to us unknown, are productive of our soul-life in all its endless variety as represented in language?

How wofully physiology has failed in explaining what speech is, is attested by the utter failure of teachers in attaining definite results. From everywhere comes the same sad story. Voices ruined instead of improved, healths impaired, fortunes wasted. There never has been what might be termed a "true" teacher of the voice, because the subject has never been understood, and it is impossible for a person to teach what he himself does not understand.

Man's understanding is so circumscribed that it continues to cling to two separate things, a material and a spiritual factor, which are supposed to be far apart from each other, while as a matter of fact and as every one knows, or should know, they must for the purposes of life and any action thereof sustain each other and act correlatively. Hence every endeavor to explain the action called vocal utterance, song, etc., from any other than this correlative standpoint is, and must be, futile. Singers, however, live too much on

the surface, they do not take the "time" to read such books as I have published. They "cultivate the voice" by singing notes, in place of cultivating the soul by singing words. Unfortunately, moreover, it is not the singer alone who has not the "time to read," for he must practice, practice, practice, in the same restless, headlong and resultless fashion as heretofore, but it is the editor, the man of science, the physiologist whom the singers look to for their information, who are most to blame. Even in Germany, a country on which I had staked such high hopes, Lilly Lehmann's book, "My Art of Singing," which appeared about the same time as mine, is everywhere praised, while mine is passed by unnoticed by musical journals.

In spite of all this discouragement I have to continue to write, not because I wish to, but because I cannot help it.

Words, either spoken or sung, stand for ideas expressed in the English language, or the French, or the Russian, or any other. Words in song are subject to the same laws as the same words are for speech. In poetry our feelings find expression in the words of which the poem is composed. Song being poetry set to music, the same laws govern both. Song is poetry given its *full* expression. At first poetry, it is alleged, was always sung, not spoken.

For song all the strings are set in motion, the entire body vibrates, or should vibrate, in harmony with the entire soul. When in speech the immediate parts concerned only are brought into action, one hemisphere sustaining the other, in song both hemispheres act in harmonious undulation. The substratum, the mode of recognition, the first impulse that creates

the word, spoken or sung, is of a different order with every nationality. Hence the various languages and the difference in their idiomatic expression.

Now speech or elocution or song, no matter what mode of expression may be used, are meaningless, unless they represent the thought that underlies them in every word thus expressed. These are self-evident facts and it would be superfluous to call attention to them but for the repeated assertion that song is something altogether different from speech and not subject to the same laws.

In song each syllable, represented by a note, is supposed to stand by itself, and to be expressed by itself; this, at least, is the way it is usually taught; the scholar, however, involuntarily goes beyond the teacher, and has the idea, the entire word, in his mind always; else he could not express it. Syllables are component parts of a word, as a word is a component part of a sentence. After the thinking of a word, therefore, we must assign it a place in the sentence. A sentence may be composed of a single word or of many. It is the sentence, however, always which represents what we want to express. The final purpose of vocal teaching, therefore, should be to express the sentence; the component parts of the sentence must then be given attention. Of course, you may begin with the component parts, the consonants, vowels, syllables, words, the connecting links, and thus arrive at the sentence. It is the old-time spelling and grammar as against phonetics and object lessons. I vastly prefer the latter in this instance, the analytic as against the synthetic.

Compositions for song should be remodeled in

some way, so as to first produce before the mind the entire sentence; then its representative words; then the words forming the connecting links; and finally each separate syllable, this being about the process in which we conceive a sentence and read it. Songs written thus could be sung without the aid of a teacher.

There is not much more sense eternally singing the scales of vowel sounds than there would be in eternally repeating the numerals as an assistance in the solution of arithmetical problems. Still, vowel sounds being the soul of speech, they possess the elasticity, the power of expression which the soul has; while consonants, representing the body, are confined to a narrow and rigid compass. Hence, consonants in song cannot be uttered as scales. This is reserved to the vowel sounds. The problem, however, to be solved in vocal utterance, song, etc., is language and the expression thereof; not vocal sounds merely and their expression. Children nowadays are taught words as to their meaning through object lessons instead of letters and syllables without any meaning, to begin with. Why should singers be taught differently? Why should they not in the beginning be taught to speak and sing words and sentences, and their expression in conformity with their meaning? The syntax that treats of the sentence and its construction can come in later as a higher study. We do not inhale oxygen or nitrogen, but we inhale atmospheric air. This we need to sustain life; the knowledge of the composition of air is a study necessary to the chemist, as that of words is to the artist.

LEARNING TO SING.

Each word possesses a rhythm of its own in conformity with its spiritual meaning. A word is subject to just as many different rhythmic movements as it has different meanings. This rhythm is hidden in the word, quite apart from tempo or melody, and is a matter of feeling. In ordinary conversation this rhythm is seldom brought out to perfection. The art of singing is, or should be, to produce each word in such a manner as to give by its slower movement this rhythm and all its other hidden treasures their full value. The music accompanying song but wakes in us a feeling or a mood in which the expression of our temper should be uttered as to time and volume. It can never affect the utterance of the spiritual meaning of the word proper, however, except as an echo of what is slumbering within us. The music should be a guide more than a teacher; a guide to lead us into our inner being and to properly bring out, to educate, what there is therein hidden in the word and the sentence. This can best be done by intensely feeling what the word, the sentence and the entire meaning of the poem really stand for. The music does not influence the utterance of the word as much as the immanent spirit of the word does or should influence the music. Hence the composition, to be true, should be of the inner spiritual nature of the word; or rather there must be an alliance between the spiritual nature of the word and sentence and the manner in which they are set to music.

We must learn to produce song utterance in conformity with nature before we can learn to produce it in conformity with art. We must know how to converse properly before we can begin to speak as an orator or actor.

The singing teacher should therefore begin to teach his scholar how to speak well and soulfully, more especially in his own language and later on in other languages. After that the scholar should be taught to sing without the accompaniment of music, beginning with the vowel sounds, syllables, words and simple sentences, always thoughtfully and harmoniously. Even the singing of the scales of vowel sounds should be accompanied by thought always. It makes a vast difference whether they are produced thoughtfully or mechanically. Thought of the sound infuses the spirit into the vowels and makes them a basis for thought embodied in song. Then simple songs should be taught, still without musical accompaniment.

After the production of simple songs has been sufficiently mastered the study of song in connection with musical notes should be begun, but not before.

It appears to me that to begin singing with the accompaniment of notes is attempting to overleap a chasm which should previously be gradually and carefully bridged. The physiological and psychological part of voice and song production must be firmly built; and song must be produced naturally by dint of it, before we begin to climb the artificial ladder which will gradually lead us to the highest pinnacle of the art of singing at the hand of music.

Children must begin with the primary school before they can enter the grammar and high school and finally the college and university. The art of singing is usually begun by entering the high school, and in some cases even the university. The scholar has not had any previous education and cannot grasp and spiritually digest the themes set before him.

The composer must bear the inner (spiritual) value of the word in his mind when setting the text of a song or an opera to music. Unless he does, his composition will be artificial but not artistic.

He may, but should not, choose his measures, melody and harmonies, apart from given laws to which they are subjected; he *cannot* arbitrarily choose the rhythmic intonation belonging to the word and the sentence.

When properly composed, his music will wake in the singer the same feeling which he (the composer) had when he wrote it, and the singer will reproduce out of his own soul what the composer had put into the song out of his soul. In other words, the composition must be of such a nature as to be able to wake an echo slumbering in the soul of the singer.

To write the music first and the words to suit the same afterwards, as has sometimes been done, is about as sensible a thing as to first make the ornamentations and then erect the building for which they are intended, in which case in all likelihood the one would in no wise fit the other. The building, the substructure, the word, is the fundamental principle. Its inner nature, its intonation, must be expressed in the song quite apart, yet in addition to the ornamentation, or the

melody; furthermore, the proper feeling must be infused into the word.

It therefore seems to me that, in addition to the notes for the melody, there should be signs indicating the soulful expression, or intonation, and the feeling, for each separate word. These signs intended to illustrate the psychologic and physiologic process which takes place in the evolution of the word should be incorporated in the *text*. After having become familiar with these signs it will be possible to read them as easily as the notes, and in properly reading them, the process which they represent, and consequently the *voice*, will in every separate instance be produced correctly and in conformity with natural laws.

Simple signs may be invented for this purpose, designating the place where words originate in the body and the place they correspond with the brain. This will indicate the relation of body and mind, and the *direction* which the voice takes, in which it is evolved, and is produced for each separate word.

To speak of voice production in a general sense and apply it indiscriminately to any word and sentence and to any language, is no more to the point than to speak of chemical analysis in a general sense and apply such teaching indiscriminately to every chemical process of whatsoever nature. When songs are marked as indicated, they will offer the student the opportunity at comprehending the full scope of the demands that are made upon him. With the aid of a competent teacher, who has made a thorough study of these matters, or even without such aid, if the scholar is himself competent to make these studies, he

should be able to develop his voice to its full capacity in conformity with natural laws and avoid all false efforts and unnatural straining thereof. When thus gradually and naturally developed, it will in fact be difficult for him to commit errors and ruin his voice, which is now so frequently done by false guidance and consequent false efforts. The time for developing the voice would be vastly reduced, as the haphazard mode of attempting to do so, as at present, would be replaced by a progressive science in which every step would count in being one in advance of the previous one. Besides the signs spoken of for the intonation, those for the accent (\(\circ\)), and also those designating time (\((-\circ\)), might be used advantageously in connection with the text.

Music produced on musical instruments is analogous to a subconscious language amenable to people of all nations alike. It is a spiritual language which is of the same order as our subconscious language, a language which is imbedded in every man's nature, as the substructure to his spoken language, and which led me on to the remark "that all languages, at bottom, are the same."

For the proper comprehension of the word and its intonation in song in various languages, however, besides the general laws underlying the substructure, we must make a study of the laws and the science of the idiomatic expression, specially applicable to every separate language. These laws which are formative of the superstructure (the various languages) require a separate study of their own. When music, in place of simply expressing feelings of a general nature, is to

convey a special and direct meaning to our minds, besides the general laws applying to it as the substructure to harmony, it must be accompanied by words, which in the various languages are subject to special laws and thus form the superstructure to that more complete harmony designated "song."

Not being a musician I trust my meaning will nevertheless be clear. In how far I may be right or wrong will be for musicians to decide. So far, in matters of a similar nature I have succeeded in very nearly expressing the truth by dint of my physiopsychic studies. Still, I am quite ready to admit that these are "suggestions" merely, and not by any means laws and directions implicitly to be followed. The latter may be evolved from them, however, by musicians. Regarding the places where words originate and the direction the voice takes in producing them, that is a subject to which much attention will be given in this and future publications.

As for breathing, we breathe for words while thinking of them. The deeper and longer we think of them the deeper and longer we breathe for them. This dynamic or spiritual breathing is different from vital breathing and cannot be replaced by the latter. In this connection it must also be remembered that the voice, properly speaking, is not the producer of vocal utterance, but that it is the FORCE rather which is infused into the spiritual meaning of words; into the idea, for the purpose of incorporating it into speech-sounds and thus imparting to it a material element amenable to our sense of hearing.

Hence the expression to "cultivate the voice" is

not quite correct. The *voice* cannot be "cultivated," but we can cultivate the spiritual expression of the word through the singing voice. The voice can be *strengthened* through exercise, but that can scarcely be called cultivating it.

A SIMILE.

We must deal with the word and the sentence, and the sound only as it is represented in the word and the sentence. The following simile, though not appropriate in every sense, may explain matters perhaps better than I could explain them in a more direct manner.

To deal with vowel sounds alone is like studying the colors of a piece of embroidery work by someone altogether unacquainted with such work and without any reference as to the design, the texture, fineness and quality of the yarn or the canvas on which it is made, and then from the study of the colors alone try to deduce laws as to the nature of embroideries in general. The colors may be imbedded in material of endless variety, and that material may be used in an endless number of ways. We must view the embroidery work as a whole, if we want to obtain a proper concept of its design and a true appreciation of its beauty. The yarn as such will tell no tale, as little as the canvas by itself or the colors.

The colors and their shades are representative of the vowel sounds, the design of the sentence, the various parts composing the design, of the words contained in the sentence; the quality and the texture of the yarn are representative of the consonants, and the canvas on which the design is embroidered, of the language in which the sentence is written.

It is a well-known physiological fact that there is a close relationship between colors and their shadings and between the vowel sounds and their various shadings. A similar likeness also exists, symbolically at least, between the yarn on which the colors are dyed and the consonants.

If the same colorless yarn were to be used for the embroidery work that is used for making the canvas, the design would not stand out and could scarcely be distinguished. Thus vocal utterance is also mainly made audible and distinguishable through the colors and shades of the vowel sounds. In both instances it is the shade, therefore, which produces the effect.

The color as such, however, is neither speech nor a work of art, as many additional factors have to be added to produce either the one or the other. Hence the simple singing of the scales of vowel sounds cannot contribute very materially to the true culture of the voice; it can at most develop its volume.

To study the mechanical or chemical process by which colors are produced cannot avail. They will give no appropriate comprehension of the color as such, which is immaterial, an impression, both inherent in a thing and in ourselves; or correlatively rather inherent, in a thing and in ourselves. It is so with vocal sounds. A study of the instrument of the voice will give us no conception of the nature of vocal sounds, not even of their mode of production (in con-

tradistinction to the mode of the production of colors), there being many subtle agencies at work of which we have no conception. Such study all by itself would be a futile endeavor, even if the instrument were known, which is far from being the case.

And yet it must be admitted, when we reproduce all the shades of a design imbedded in a woven carpet or in handiwork, we have a simile of the design itself. Thus also if we can produce the vowel sounds just as they are imbedded in each separate word we have the word itself. The question then would be to properly produce the vowel sounds as used on every special occasion. No two occasions being precisely the same, the intonation of the vowel sounds are never just the same, apart from the word in which they are imbedded. It goes without saying that the consonant sounds always follow the lead of the vowel sounds and partake with them of their special intonation.

As we cannot take the vowel sounds out of the words and produce them precisely in the same way as if they were connected with them, we must take words as we feel them and express them; we must make language and not sounds the basis of instruction. In words, the elements of speech, vowels and consonants are applied in thousands of different ways to produce the "design," and by their shadings bring about the "effect" of the "embroidery work;" each word being a separate design. Some sounds stream in and some out and fuse in the most wondrous manner in the formation of words. In the subtle workshop of our thoughts precisely the same color or vowel sound is seldom used twice, but each color is applied rather

in its endless shadings; these shadings themselves being the product of the special composition of such word, besides the event, occasion, feeling, emotion, etc., which produces it, and for which it is used to express the *thought* which underlies it.

I have in this simile not even mentioned the greatest factor, the embroiderer, the mind which creates the design and guides the hand with its needle and thread; the spirit without which nothing can be accomplished, not even the selection or recognition of the color, the fineness of the threads and the quality of the material; without which there can be no thought, no sound, no composition, no sentence, no word, no intonation or expression.

Still we can take the spirit for granted and proceed with our instruction on the basis indicated, knowing and feeling that it will take care of itself and of us, and guide us aright if we but earnestly will.

The spirit in this connection is the rhythm, the accent and the intonation, besides the metre and the emphasis. Of these I have already spoken. This shows that even in such a material thing as a piece of embroidery work there are many other factors to be considered besides the canvas, the yarn and the colors of the design. How many more factors must be considered in teaching singing, besides those usually taken into consideration, I have but simply hinted at in the foregoing.

THE SPIRIT'S DIRECTING INFLUENCE.

The main difference between the production of a piece of embroidery work and that of a sentence may be said to be in the use or not use of the hand. In the production of "manual" labor, or of art, from the lowest to the highest, the mind guides the hand in the performance thereof, while the eye mediates between the mind and the performance. With the blind, in place of the eye the touch is the censor which watches, guides and corrects.

In vocal utterance, however, we have no hand which performs and no eye which censures, but their vocation is replaced by the ear. In music we have a hand which performs and an ear which censures, but in song we lack all that is tangible; the only factor on which we rely being the impression made by the material sound upon our immaterial power of hearing. Having no hand to perform, no eye to see, no finger to touch, and only an ear to hear, it is difficult for us to know whether we are proceeding right or wrong. When our ear hears we are wrong, or our teacher informs us so, the question arises, how can we correct what is false and for that purpose guide such factors as are productive of speech and song into the right direction?

While our eye enables us to see material things and to also become conscious of spiritual things in combination with material, as beauty, for instance, our ear never becomes conscious of material things except in the shape of sound. While the ear is the paramount

factor through which we become conscious of material, the ear is the one through which we become conscious of spiritual things.

All material guidance failing us, we would never be able to arrive at positive facts in connection with the production of vocal utterance, but for the muscle of the tongue, which by patient practice we can learn to guide as the artist learns to guide his hand and fingers directed by the mind; the body of the tongue represents the hand, its tip the fingers.

We use the body of the tongue, but mainly its tip for the performance of vocal utterance, as we use the hand, but mainly its fingers' tips, for every other artistic performance; the sensitive action of all the fingers being represented in the tip of the tongue. The difference, however, is this, that while the use of the hand with its fingers and their tips is under the control of the mind, the movements of the tongue for vocal utterance are involuntary and on account of their rapidity cannot be watched.

The tongue is a most perfect and extraordinary artist. It does the bidding of the master, the mind, unconsciously and with unfailing rapidity. When the mind is right it executes its demands in a perfect and exquisite manner; when it is wrong it still executes them, but often in a most deplorable manner as to their outcome.

Now the tongue is capable of not only reflex but also of voluntary movement, and the latter, when under observation, can, in contradistinction to the vocal cords, be made subjective to the control of the mind. And in this there is our salvation. We can guide the tongue so as to perform on the aerial keys of the oral cavity such themes as we desire it to perform. The next question is into what direction must we guide it to correctly perform what we desire it to do? In the first instance, where must its tip point to, to produce the various vowel sounds in the different words of the different languages in conformity with their idiomatic expression? That is the main point. The proper production of the consonants and of words follows involuntarily when we can properly produce its vowel sounds, or the soul which animates them.

Inasmuch as we are in total darkness regarding the physical instrument of the voice, except what we know about the larynx and its vocal cords, over which we have no control, we still have everything to learn about vocal sound production and the production of vocal utterance.

The main trouble in this emergency and which has retarded progress, is the fact that every effort heretofore has been placed upon supposed "physical facts." These supposed facts, however, are of the flimsiest kind, and being simply material, are uncontrollable by the mind. As a help to the performer, consequently, they are worthless. On the other hand we are in possession of an endless number of spiritual facts, which are perfectly reliable, in the manifold properties of the voice and vocal utterance in general.

An early reviewer of my book, "Duality of Voice," has said: "Attempts to place physical facts upon a spiritual basis are seldom successful." To which I replied: "To be sure they are. But I have not attempted to do this. On the contrary, I have attempted

to place spiritual facts upon a physical basis." (See appendix.)

Knowing so much about the spiritual properties of the voice and so very little about the physical instrument, our aim must be to trace the spiritual performance to its physical origin; or, to express it perhaps more correctly, to attempt to get at the bottom of the relationship existing between body and mind in the dual performance of vocal utterance.

It was by watching the movements of the tongue that I first became conscious of the voice of the œsophagus. I found that by lowering the tongue I gained access to the tube of the trachea, by raising it to that of the œsophagus. As we breathe through these tubes alternately during the production of vocal utterance, we breathe for speech by raising and lowering the tongue; a fact which I published ten years ago in "The Basic Law of Vocal Utterance." This raising and lowering is not only done by a vertical motion, but by a horizontal as well. It is wavelike in its action, resembling in its general aspect the endless variety of the waves of the ocean from almost a calm to a storm, in conformity with the nature of every utterance.

In studying the movements of the tongue, besides the eye, the sense of touch also comes to our aid. While experimenting with sounds we guide the tip of the tongue from one direction into another until we strike the right sound.

In thus guiding it we touch its walls, its bottom and roof, the teeth and the lips in every direction trying to find our way. When we finally strike the right sound we must remember what we have done, so as to be able to reproduce it. We use the sounds of a foreign language for this purpose, and those of our own language as a mentor to help guiding us on our way. To all this I have also alluded more explicitly in my book, "The Basic Law of Vocal Utterance."

Speech, or vocal utterance in whatsoever form, is an outcome of our dual nature; the sounds of the voice being the physical, the underlying thought the spiritual factor of this duality. Speech is of our innermost nature. It is actuated by the same secret forces which actuate our soul life. It is thought translated into the sound of words. The secret process by which this is done cannot be reached by modern science, which deals with things only as they appear on the surface. Our entire being is involved in vocal utterance, all our spiritual and physical forces.

Arrogant man, thinks because he can create, direct and control intricate devices by the aid of mechanical, physical and mathematical laws of which he has obtained some knowledge, he can in a similar manner direct and control issues of the highest order in the unfathomable plan of the creative force of which he himself is but an outcome; issues in which his spirit fails and his boasted understanding pales and becomes as dim even as the brightest hue after the setting of the sun.

Does it matter whether muscles and cartilages move upon one another in this way or that in the estimation of the investigator, who, besides, always investigates from the narrow standpoint of his own nationality, and a much narrower mechanical one at that? As the sounds shape themselves into words of thou-

sands of meanings so do these muscles, cartilages, etc., influenced by numerous agencies, move upon one another in as many different ways. And they thus move variously for the same words, but of different meaning, and for words of the same meaning in different languages in conformity with the spirit which animates each separate word in each separate language. Their movements are countless, yet they are regulated by immutable laws. We need not heed them. Our spirit, rightly directed, will direct these into their proper channels. Then why trouble about them until we comprehend this directing influence of the spirit and in comprehending it ourselves learn to control it. The knowledge of the properties of mere matter is valueless for our purposes, as long as we do not comprehend how it is influenced by the spirit in fulfilling these purposes. To comprehend this influence, more especially in connection with vocal utterance, is the great problem I have set before me and hope to solve to some extent at least for others, as I have solved it for myself. If I live, the future will tell.

I have taken the poor man out of his hut in the alley and have built him a palace on the hillside, where the sun shines through its windows and the fresh wind from the East pervades its halls and corridors. The gloom and the mystery have left his abode and the air and the sunshine have taken their place. The monotony of his poverty-stricken existence has been exchanged for the word and the spirit; for a god within and the endless universe without; for the communion of man with man by aid of the spirit which

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presides over vocal utterance in its spoken and written word, and which unites the past with the present and the present with the future. Why wait and hesitate? The evangel of a new religion has come to take the place of a wooden image.





IS THERE ANYTHING ELSE?

A SHINING light among vocal teachers modestly admitted that there were "some things in connection with the voice unknown even to himself." A German professor, in answering my question regarding the position of science in spiritual matters, enlightened me by saying "we (the scientists) have not quite mastered those points yet," thus intimating, as they knew everything else, they would soon get there. A professor of philosophy returned my book, "Duality of Voice," remarking, "it did not fall within the field in which he was working." He was busy with the "will." A physiologist wrote me, "The title page of your book is a stroke of genius," not another word; he would not commit himself any further. He had previously seen the manuscript, but not the altered title.

The remarks of these gentlemen are characteristic of the entire endeavor of the materialistic school. It is laboring under the delusion that it is really attempting to probe into the mysteries of life, while it is merely looking at its "title page," having never read a single line of the real book. I have been kept on the rack by its representatives for ten years, not one of them, to my knowledge, having been willing to seriously

look into these matters or to discuss them openly in one of their journals.

Physiology will never be able to reach conclusions worthy of its endeavors as long as it confines itself to the outward appearance of things; to the outer consciousness in its researches, in place of the inner; the physical in place of the psychical; the outer being another man's consciousness, which we cannot look into, and therefore, as far as any results are concerned, in reality no one's; the inner, being our own, we can probe into its secrets, and in so doing, into everybody's secrets.

The outer consciousness sees but what is on the surface, the phenomenon; the inner penetrates into causes. Unless physiology changes its methods, any schoolboy who has trained himself to look into himself during his endeavor at explaining phenomena may laugh it to scorn. What have all its boasted accomplishments ever amounted to in regard to the exercise of our faculties? What aid have they been to humanity? What has it taught us regarding our soullife? It denies the eternal moving power of the spirit and lays every accomplishment, yea, our very existence, at the door of mechanical and chemical agencies. It tries to make machines out of us, we who are spirits. Carlyle, when invited to go to a haunted house to see the "spooks," replied, "I do not need to go that far, I can see thousands of them moving along London Bridge or the Strand any time of the day."

In the introduction to the fifteenth edition of Kirk's Handbook of Physiology, 1899, you can read the following: "The question arises, however, is there any-

thing else? Are there any other laws than those of physics and chemistry to be reckoned with? Is there, for instance, such a thing as vital force?" It may be frankly admitted that physiologists at present are not able to explain all vital phenomena by the laws of the physical world, but as knowledge increases it is more and more abundantly shown that the supposition of any special or vital force is unnecessary; and it should be distinctly recognized that when, in future pages, it is necessary to allude to vital action, it is not because we believe in any special vital energy, but merely the phrase is a convenient one for expressing something that we do not fully (sic) understand, something that cannot at present be brought into line with the physical and chemical forces that operate in the inorganic world.

It will be in connection with the nervous system that we shall have principally recourse to this convenient (sic) expression, for it is there that we find the greatest difficulty in reconciling the phenomena of life with those of the non-living."

"Denn eben wo Begriffe fehlen, da stellt ein Wort surrechten Zeit sich ein."—Goethe.

"Just where we fail to grasp a meaning there comes along a most convenient word."

Vitality! So they reluctantly concede there may be such a thing as that at least, unexplainable "for the present" through material laws. That's what we have come to in this the dawn of the twentieth century. "A little learning is 'indeed' a dangerous thing."

"A little," in spite of the accumulation of the re-

sult of centuries of study in endless tomes of scientific lore. We, who are spirits, have been decreed matter. Matter moved by matter. The task of the century upon which we are now entering will be to disprove all this and to make us again spirits—matter presided over and moved by spirit.

Scientists look at life and its manifestations from the dead man's point of view; as a man would look at them whose judgment and feelings have been eliminated, but who is still gifted with the faculties of sight, touch and hearing, as far as these faculties might be capable of being exercised under such circumstances, but no further.

They leave their own life and feelings out of the question and describe what they notice in other lives from this cadaverous standpoint. In other words, though we are spirits, in their examinations they omit the spirit. They describe the manifestations of the spirit, yet deny the spirit. They build a race in the river, but do not let a drop of water run into their mill, yet expect the grindstones to move and grind their grain into flour. They bathe in a stream from which the water has been drained and come out as dry as when they went in. In consequence, they are not much wiser after their studies regarding the essence of life than they were when they first entered upon them. What the professor cannot demonstrate in his laboratory certainly does not exist.

Psychology follows in the same footsteps. It delights in the examination and description of the unusual, the abnormal or supernormal, being incapable of comprehending the normal. Yet it is necessary to

comprehend the normal before we can begin to comprehend the abnormal or supernormal.

It cites extraordinary, wonderful or miraculous cases and expects to attain results in the comprehension of the normal by making exhaustive studies into the abnormal. It also looks at phenomena from the dead man's point of view, leaving its own living entity and all its endowments out of the question.

In other words the modern scientist is determined to penetrate into the secrets of life, in what appears to him the only rational standpoint, namely, the one over which he thinks he has control, the material or physical, but he fails because in reality he has no such control, except through those very spiritual agencies which he discards as non-existent.

He tries to reach conclusions through observation, experience and experiment; but confines himself to observation of phenomena without attempting to probe into their causes; he confines himself to experience of a physical order and to experiments with physical things; meantime denying the existence of the spirit without whose aid he could not possibly even attempt that much.

Is it necessary that we should comprehend and know everything, we little men that strut this little earth? Should we not rejoice rather and be content with what we possess and are capable of possessing, and in the onward course of our evolution hope for further enlightenment, hereafter?

It has been said that a scratch made with the point of a needle upon a large globus representing the earth would be about equal to the deepest point ever reached by man below the surface of the earth, or to the deepest ditch, hole, mine or artesian bore ever made.

This is about the standpoint of the science of today regarding life and our entire human existence; a standpoint which recognizes nothing as scientifically proven that cannot be ascertained through the senses. From this standpoint we can at most make a scratch with the point of a needle upon the great globus, representing the spiritual laws and truths which govern the universe and govern ourselves, and point to that scratch as our scientific accomplishments in the knowledge of our physio-psychical being.

That I have gone a step further in the exploitation of these laws, have made the scratch a little deeper upon that mighty globus, I positively, but with due humility, assert.

Who will sustain me in this "bold" step, or will it be forgotten and go for naught?

I will not claim any undue merit for myself. A window pane in an ancient castle had been obscured, being covered with cobwebs and the dust of ages. I persistently cleaned it; and see, when the sun began to shine through it, vista upon vista presented itself to my astonished view. The old castle, which had been swarming with all manner of spooks, began to be filled with beautiful forms of life and color. It ceased to stand by itself solitary and alone, but became part of the surrounding landscape and the world; forms of life, gifted with spiritual beauty, began to float in and out, mingling with the air and the ether and ascending to the very stars.

That window pane was the diaphragm. It was

covered with the dust of ages. All that was spiritual in us was supposed to belong to the brain alone. When I succeeded in looking through the diaphragm I found there was spirituality below as well as above it.

Mr. Bell constructed his telephone on the strength of his discovery that the voice could be sent through a diaphragm of man's construction. But he probably did not know that his diaphragm in reality was a duplicate, in a mechanical sense, of the one separating thorax and abdomen. The voice had to pass through the latter before it could find its way into Mr. Bell's diaphragm. Freighted with positive and negative or spiritual and physical elements it could then be carried along his wires and be understood at the other end.

After I learned to look through the diaphragm I discovered a new world. That world was the hemisphere of our material existence, which, together with the "old" world, the hemisphere of our purely spiritual existence, constitutes the sphere called man. It used to be the brain alone. To this, through my discovery, has been added every other part located above the diaphragm, while all that is located below the diaphragm was ascertained to apertain to the hemisphere of the spiritual-material world. This world of ours, man's body, proved to consist of two hemispheres, the spiritual and the material. It was found to be of dual nature.

The sphere of thorax and abdomen, in fact, proved to be a representation not only of dualism, but of monism as well. Two in one as well as one in two. And this is the mystery and probably always will be.

Before Columbus, this little world of ours was a flat body anchored somewhere in the universe "as its centre," everything else revolving around it. Man, as the centre of this centre, was great then, which, however, did not prevent him in "divine" questions from bitterly persecuting and torturing his fellow men " for the benefit of their souls." The earth was the "world" around which sun and moon and all the stars, "as shining points in the canopy of the sky," were revolving. This view of the "world" has been retained to the present day in our speech, for we still "sail around the world," we show "a map of the world," or are willing to "let the whole world know it," and many other expressions of a similar nature, when we are simply thinking of the earth. In this sense God also sent us His Son to do penance for the sins of the world by surrendering his life for man's benefit. To Him also this earth was the world in which all His grace and benefactions centred; else He would not have limited the Son's mission to our tiny globe. God cannot be greater than the time and the people from which He emanates. Since then the telescope has opened to our eyes the endless eternity of the universe, but the Church still lives in the dark ages, and until lately menaced everyone with its ban who dared to offer scientific proof which could not be reconciled to its doctrines.

"Science" has since reduced man from his high estate; it has "shorn" him of his "divine" qualities, has made him a brute even with a brute ancestor. We must uplift him again from this low estate and degradation; lift him higher, in reality, than ever he was

before; not by so-called "divine" laws, but by laws of nature heretofore hidden from our gaze.

Adding the new world to the old, Columbus made of our earth a "sphere." Adding the hemisphere of the abdomen, the physical, to that of the thorax, the spiritual, through these studies body and soul have been united in the "dual sphere of man"; this sphere, though divided in two, is nevertheless throughout spiritual as well as physical. The proof of this seeming paradox shall not be wanting.

After Columbus, our earth, from its original moorings somewhere in the universe, was launched by Copernicus into the sky, where it has been serenely floating, a little star, a vassal to the sun, ever since. The sphere of man, after having been moored fast, first in purely spiritual, and of late in purely material issues, always at war with each other, will hereafter, I hope, be also seen serenely floating aloft in the correlative union of these two.

The pre-natal as well as the post-mortem forces which influence man's destiny should be looked at as an "advancement" from the lowest to the highest, rather than as an "evolution" of the higher from the lower. It is but a word, but words are mighty factors through their spiritual meaning; it being simply the difference as between looking forward and looking backward.

DEGENERATION.

When I look at my tongue I am looking at as many millions of tongues as there are people living upon this earth, and at as many countless millions more as have lived upon it in the past, as well as the myriads of tongues of men still to appear upon this earth; not to speak of the tongues of such animals as bear a close resemblance to man's tongue. For such is the constancy of nature that what is true with the individual is true with the entire race.

If this were not so, there would be no knowledge, no science, no truth; we would not understand either the past or the present and could have no hope for the future. There would be chaos. The constancy of nature is our anchor of trust, confidence and hope in all the apparent vagaries and inconsistencies of life. It consists in unalterable and eternal laws, which no God, real or imaginary, can change. If He could, but in a single instance, it would be done at the peril of the entire edifice of the universe. Hence, the miracle has no standing before the enlightened knowledge of the present age. Conception and birth, life and death, must in every instance be produced by the same causes and in conformity with the same laws.

Man is the highest outcome of these laws upon this earth. He has been evolved from the lowest form during epoch upon epoch of favorable circumstances. For these laws, once concentring in any one given individual form, no matter how simple such form's construction, work on incessantly towards a higher goal.

This central idea of Darwin's has delivered us from the thraldom by which we were bound to an external and arbitrary "God." It was a great liberating and uplifting idea and deed. From servants it made masters of us all. How did this knowledge originate? By observation; constant, painstaking, incessant, careful observation of nature's action and accomplishments. For while we are creatures merely and subject to laws we cannot alter, we are gifted with the gift of observation of these laws. While we are not actors, we are spectators; more or less intelligent spectators, observers and critics.

Still, Darwin, while closely watching what was going on in nature and informing us of the results of his observations, was from beginning to end but a spectator, an observer of phenomena. He never got behind the scenes to find out how these phenomena were enacted.

Whatever knowledge I may possess has also been attained by observation, not of outward appearances, however, but of actions that are going on within us.

While Darwin and his school were the authors of the liberation of our race from superstition and thraldom, in one direction, they were also the authors productive of a disastrous retrograde movement.

Man, in abolishing "God," constituted himself a god in God's place. He forgot that he was a mere observer and fancied himself a creator. Following Darwin's example all of man's energy henceforth was displayed upon observation. Very many very wonderful facts were thus noticed and brought to our knowledge.

But the triumph of these scientists ended in tragedy. The tragedy of the banishment from the world of faith and hope (of faith in higher laws than those indwelling in matter, of hope in a higher development of the soul after this life), and in the destruction of the ideal. With the destruction of the arbitrary "God" the spirit and the soul were also discredited and abandoned. Matter governed all; matter moved by matter, physics, chemistry and mechanics.

Great observers, like Haeckel and his school, delved into the mystery of mysteries and endeavored to solve them from this material standpoint, which they denominated "monism." Everything was involved in matter and evolved from it. It became sovereign and supreme.

These observers inaugurated the "reign of the natural sciences" and the recognition of the *truth* through the same. There was nothing under the sun that could not be thus explained. This explanation was the solution of the "Weltraethsel," of the mystery of mysteries. To accomplish it two things were required, "experience and causality"; which, together with every other faculty, were evolved from the "highest factor in our composition—reason."

What is the consequence of this endeavor? A low conception of all human thought and effort, which makes its presence felt in a dark and sinister vein stretching its unwholesome length throughout every department of art, literature, the drama, as well as every other poetic and idealistic conception, and eating its way even into the sanctity of the home and the hearth.

In being deprived of "God" we were deprived of religion. The "religion of nature" was to take the place of a discarded and moribund "faith."

As the wonders of nature, largely by the aid of the microscope, unfolded themselves ever more to the astonished gaze of mankind, the observers dropped as obsolete, the Jewish and Christian mythology, and embraced instead the cult of the "True, the Good and the Beautiful." An admirable cult. Yet something was wanting; that which *produced* this trinity of grace, which was behind these mechanical, physical and chemical, stern, unalterable and eternal laws moving ourselves and the universe.

Great and fruitful as the endeavor has been in one direction, the world must be rescued from its summary result, the destruction of the ideal, by the restitution of the soul and the spirit. The purely spiritual can and must be shown to be the highest factor in the world dominating every issue. It must be shown to be of *universal* presence, constituting in itself the creative and *all*-sustaining power. It must be shown to be the force of forces, the energy of all energies.

We all know that it exists; but as scientists have been unable to bring it within the compass of their comprehension through their senses, they are begging the question by discarding it as non-existent. Science wants to explain all things. Yet it is the very mystery which surrounds us, and into which our understanding can never penetrate, which gives us our highest consecration.

The fact has been lost sight of that while we are, and in the main will always remain hopelessly ignorant of the inner working of our nature, our yearning, longing, praying, hoping and desiring for something beyond and above us are our best possessions. They are at the bottom of music, art, poesy and religion. Without them the world would be hopelessly drear and sterile. And in this sense, also, Schiller's words must be understood:

- "Nur der Irrthum ist das Leben Und das Wissen ist der Tod."
- "Life is error everlasting, Yet in knowledge there is death."

The last verse, however, may also be rendered:

"Ours is knowledge after death."

I have found a means by which the spiritual can be brought within the compass, not of our faith, but of our knowledge, mainly through the manner in which it reveals itself in the essence of language, and it requires neither microscope nor telescope, nor chemistry or physics, to thus reveal it to all men.

The world has ceased to be an absolute monarchy and has become a republic, whose constitution consists of eternal and unalterable laws, which exercise their influence throughout the universe. They may be summarized under the headings of Mechanics, Physics and Chemistry, constituting material forces, or energy; and under those of Vitality, Emotion and Spirituality, constituting the higher, so-called, supernatural forces. The former are of the earth, the latter of the ether. While the former are recognizable through our senses and may be governed by our will, the latter are im-

ponderable and govern us more than we are able to govern them.

Of these, spirituality is the most potent. It is of the ether which pervades all things. It exercises its influence backward and forward through all eternity, and dominates by irresistible laws space and whatsoever obstructs space. It is thus the parent of both space and time.

The telephone has annihilated both space and time. I talk to my friend a thousand miles away as if we were in the same room. Our conversation is of a purely spiritual nature transmitted by electricity. Hence it is the spiritual which thus annihilates space, and the time usually required for traversing it.

When in the beginning of this chapter I spoke of the "constancy of nature" as illustrated by the tongue, I had, as a matter of course, in mind the material aspect only of nature, and consequently also of the tongue. The *movements* of the tongue, on the other hand, for vocal utterance, are an outcome of every man's, and more particularly every nation's individual spiritual nature, as represented by their language, and are of a different order from any material development. Nature's "constancy," however, is also paramount in every *spiritual* issue and can be positively demonstrated through the laws which govern language.

THE ABILITY OF FORMING CONCEPTS.

Men are said to be descended from monkeys, or, to speak more accurately, from the anthropoid ape, and to belong to the same race. Yet the ape, in spite of that, is but a poor creature. It has no soul and would have scurried around unknown in the primeval forests forever had not the human spirit come and made it a mere epoch in the history of the ascent of man. The human spirit discovered the anthropoid ape, and in that it communicated the fact of its existence to all other men, it has to all intents and purposes created him for us.

An ape, however, could never discover a man, and, having discovered him, create him for his fellow apes.

Without the word every discovery would be useless, for it could never be communicated either to contemporaries or posterity.

Let us stick then to the word.

The world first begins for men with the consciousness that perceives a world. The first consciousness was the child of the idiomatic expression which had long slumbered in humanity and was first waked to activity through the mediation of the word. The soul, thus having found a body, was enabled to perpetuate this expression. Then for the first time had we a world. Whatever exceeds that, is born of a later imagination.

With the idiomatic expression, preceded by the idiomatic impression, commenced human insight, and consequently civilization. Before that there were only

animals in human form. By means of the idiomatic impression a soul was breathed into the animal. Therefore we must consider the idiomatic impression made by the elements, the flowing waters of a brook, the wind, the waves of the ocean, or even rest and peace, as "the beginning," for however we look at it, before man, there was for us no world, as there will be none when man has passed away. Nor can we imagine one, for with man as the first capable of forming a conception, began the first conception. From the first impression arose the first expression, that is to say, the concept translated into a word, and therefore the first word, because the first expression of an intelligent soul, must be called "the beginning."

Before man there was no beginning in the proper meaning of the term, although we will always be trying to picture one, for it passes the bounds of human ability to put a limit to infinity. For want of something conveivable it is always striving to conceive the inconceivable. This attempt leads to superstition and mysticism and at the present day wields a potent influence even among the educated in the shape of the Jewish-Christian mythology.

However incomprehensible may be the mystery that envelops us, and however endless may be the infinity of time and space in which we are immersed, yet in the first spoken word can we find firm standing ground. This is "the beginning." The study of the word, as the representative of the thing, is of equal significance with the study of the ego. If we once understand the word in its origin and development we are upon the right road toward understanding everything else.

It comes to us we know not how, embodies an idea and makes that idea comprehensible to others.

Science makes a mistake in trying to judge things according to appearances. Their nature can only be understood properly in their relationship to ourselves. They have their being in us and it is their relation to us and our intelligent soul that lends them substance and lies at the bottom of their appearance.

He who will discover the truth must be content with the bounds of human reason. To go beyond them is to have nothing intelligible to communicate. For us man is the quintessence of the world, the world creative in his consciousness and reason, as well as the world created.

Although geology furnishes indisputable proof that man is a relatively recent product of the earth (it needed the longest time to bring forth the final product), and although astronomy furnishes proof that the world has existed for endless ages before he made his appearance, yet it is only through his own power of thought and reasoning faculties that these results have ever been arrived at. We must, therefore, in spite of this knowledge, consider as one the origin of human thought and consciousness and the origin of the world, in as far as we come in contact with it; and this brings us again to the word, which, through its dual nature, makes it possible for us to know both ourselves and our world; and, because it can be communicated, lays the foundation for every science.

It is the presence or absence of this power of vocal mediation that forms the line of demarcation between man and the animals. One thing seems clear to

me. If the word is able to make a man out of an animal, we need only investigate the word to discover the truth that lies at the base of this process; a truth that ought to lay bare the most secret springs of our nature.

We can to a certain extent by means of the imagination think ourselves back into our prehuman condition. But our imaginations are the representatives of our consciousnesses and our intellects, and so we are by means of them brought back into this condition "in persona," so to speak. But while our imaginations are able to carry us back into the dimmest past, that past ever recedes before our grasp and has no independent substantiality. It is a creature of our mind.

It is man himself, then, that makes the beginning, and his beginning is coeval with the dawn of his self-consciousness. The beginning of the world, then, is well stated in the sentence, "In the beginning was the Word."

The world was soulless till man came and breathed his soul into it. We do not know whence the spirit of man came, nor will we ever know. But we do know that the life in nature as far as we are able to perceive it is a correlative emanation from man and nature, and thus without him there would be neither nature nor world. The sentence "There is nothing new under the sun" has its justification only in this, that everything that has yet been discovered and ever will be discovered, and everything that ever has been said and ever will be said, really was already in existence and only awaited the human spirit in order to be brought to light.

In this way a new act of creation is taking place every day, every hour. The world never ceases being created (quite apart from births and the development of living things into new forms), for the human spirit is never at rest. Its work is without beginning and without end. Apart from the human spirit the world has no meaning. Should it cease in its activity, the world would vanish, as there would be no intelligence to conceive it. We can, however, confidently assume that then another race would people our earth, the successors of man. They would be a higher race, which would carry to completion the work that humanity had begun and steadily progress to higher achievements and nobler goals.

The artist who has created this world has need of witnesses for his art, someone to understand it, assimilate it and admire. For what other purpose would it exist? There would be no artists and no art if there were no one to recognize and appreciate their products.

True appreciation does not consist in crawling in the dust before our Maker and hiding our faces from Him, but in standing upright and beholding His creation face to face. Thus only will we be able to comprehend Him and hope to become ever more worthy of Him.

We ought only to busy ourselves with the relationships with which our intellect is competent to deal. Whatever is beyond that is idle fancy, never leads to clarity of conception, and only succeeds in producing distraction.

Of all the divinities that ever ruled the world there

was none that could help us and give us succor but that which in us dwells. The deeper we investigate ourselves and the wider we carry our researches, so much the deeper, more intelligible and more spiritual becomes our world. The broadening and deepening of the human spirit is, therefore, and ought to be, not only our highest privilege, but also our highest duty. Everything depends on this. Whatever is more than this is mere speculation and has no direct influence on our world and being.

Literature, art and science and a poetic conception of the universe are the altars upon which we must sacrifice. These are no dead gods, but live and ever strive toward higher goals, and conduct us with them upwards on heavenward leading paths.

A philosophy which savors not of the breath of poetry may speak to the reason, but will never comfort and do justice to the propensity in us for something better, our desires, our longings and the feeling which bows before a higher power, and which we usually call "religion."

We can only speak for ourselves. As to what concerns other worlds and their inhabitants we can only take it for granted that they, too, are animated by the same world-spirit that comes to us raw material, is worked up in us into the finest fabric, and leaves us a spiritual product.

THE GOSPEL OF HUMANITY.

If we abandon the theory which teaches that there is a power external to us and the universe which loves, protects, guides and sustains us, and with which we are in rapport, to which we cry in our necessities and are heard; if we abandon the idea of the existence of such a personal power which we call God, what have we to put in its place?

Denying as I do the possibility of the existence of such a power, I would put in place of an unknown, incomprehensible, even impossible God, "The divine mission of man," "the God-man," "God in man."

We are always groping after the supernatural (of which we know nothing and which we can neither conceive nor comprehend) in order to marvel at it and adore, but we have so much of the supernatural in ourselves that it ought to give sufficient object for our adoration. We know that this supernatural exists, although we are not in a position to say from what sources it springs. We call it Love, Friendship, Reverence, Sacrifice, Courage, Joy, Righteousness, Feeling, Music, Art, Poetry, Genius, and give it many other names and designations. We know that these gifts, powers, qualities and potentialities are well grounded in us, that we are imbued with them and have ever been under their influence. But if the question is asked, whence come they, we stand uncertain and helpless, just as before the similar concept of the word "God." The deeper we penetrate into the relations

existing between soul and body, the deeper we also penetrate into this latter concept, as I have shown by means of these, and others by similar investigations.

This penetration into the divine principle which dwells within us is a higher honoring of God than the groping after things which lie beyond us and are foreign and unattainable to our finite nature. Priestcraft has long understood how to bind a yoke on the necks of mankind by leaving unnoticed and passing over the *living* wonders known to us through our own perception and our immanent consciousness, and to foist on us instead wonders "impossible" to our comprehension. They have put our God in an untenable wonderland and have enslaved and martyred those who refused to believe in this God and wonderland.

On account of the isolation of those of different belief, particularly of whole tribes, races have sprung up who to this day hate and kill each other. All on account of a personal God, a scheme that far transcends our reason and which, when viewed in a proper light, must be considered delusive and impossible.

A mutual faith, the same as a common language, as a mighty and influential spiritual element, is apt to exercise a powerful influence in the development of spiritual and material characteristic traits, which will impress its stamp upon a number of people and in course of time create them a separate race, and races are apt to antagonize each other.

The miracle is man himself, man healthy and sane, much more so than man weak, ill, impotent, hypnotic, spectral. Let us cling to normal man and worship him in his good and high qualities and strive to imitate him in everything good and high which he offers. Let this be our priesthood and our church.

Of the inborn nobility of man we have positive knowledge, not only from countless examples drawn from the history of the past, but also from our own time, which gives us apt examples personally known and accessible to us. We can hardly open a newspaper that does not tell of noble deeds performed by someone even lowest in the social scale. Man as we know him, even though he often errs, yet taken as a whole, can only deserve honor and trust.

What we are able to know of God is a knowledge that springs from ourselves, the knowledge of the highest of which man is capable. By conceiving our God as our highest ideal of man we get a Buddha, a Jesus, etc. The greatest fancy of immortal poet or painter has never been able, when portraying a god, to pass beyond the qualities which characterize man. We are in, and ever remain within, the limits set by our "ego." It circumscribes our whole reason. Our God is the reflection of ourselves. Conversely we are the reflection of our God. Why should we worship this image that springs from our imaginations and through superstitious additions is ever further removed from our reason? Why not rather the original from which it sprung? Would it not be better if we sought. to imitate the high examples of great men? If we sought to be the god we worship?

When we rightly understand man we come more and more to the conviction that he is not only of divine origin, but also that he is predestined to fulfil a divine

mission. If the divine principle did not dwell within us we could not exercise any influence over other men and over the nature of animals closely related to us. As these are under our influence so are we under the influence of higher powers, about which we can only conjecture, and of whose actual being we have no conception.

Whatever transcends man and does not directly belong to his conscious ego, the nature and the operation and the power of eternal laws and forces which influence him, we can confidently assume that while they rule him, he is through them nearly related to the eternal divine.

Hence, we ought not to regard the divine in humiliation, weakness, awe and terror, as a power external to us, but as that which is the best in us, which sustains and elevates us.

If this once becomes our religion we might hope not only to convert the savage in the wilderness, but even the savage which dwells in us and enables us to mistrust, hate and kill our fellow man because he does not share our particular inherited spiritual theory, which as a rule exists more in externalities than in inner conviction.

When once the whole of humanity arrives at this conception, that the divine principle, however different it may have seemed to different peoples in different times, has always been the product of their own fancy and their own ego in its highest potentiality, they would cease to war about this phantasy and all unite on the divine principle which lives in us and is our own.

When this takes place man will honor man for his high and good qualities, wherever he lives, whatever he does, whatever he thinks, and from whatever race and people he may be. A higher religion we do not know and will never learn.

REALISTIC DUALISM.

Regarding some of the questions mentioned in the preceding chapter the reader can find in the book, "Ernst Haeckel, die Weltraethsel," or the great "World Enigmas," solutions based upon the latest scientific investigations.

This book treats upon such "simple" questions as:

"Our life, our existence in the embryo, the essence of the soul, embryonic history of the soul, cognition of the soul, immortality of the soul, evolution of the world, God and the world, solution of the world enigmas, etc."

All these questions are treated from the point of view of what may be cognizable through the senses, and the book solves them in a manner satisfactory to its author.

Minor "world enigmas," probably being beneath the author's notice, are not paid any attention to.

Such questions, f. i., as the manner in which we breathe, sleep and dream; eat, drink and digest; speak, read and write; in which the tongue moves for breathing, speaking, singing, etc.; in which we walk, forward, backward; in which we sit down, rise and lie

down; in which we ascend and descend; in which our arm, our hand and the fingers move; in which we see, taste, feel, hear and smell; in which we cough, sneeze, yawn, laugh and weep; in which we frown and smile; in which the eyebrows rise and fall, the lips tremble, etc., and hundreds of other similar questions, quite aside of such distant ones as our inclinations, sensations, feelings; our ability to think and speak, and many others in which our entire nature is involved and which we are constantly called upon to exercise.

Such questions also remain unanswered of how our hair and nails grow; how and from what they originate; how our skin constantly changes and is as constantly being renewed; how wounds, and be it but the slightest cut, quite apart of heart's wounds, heal again; how we know and recognize one another; how we grasp each other's hands and kiss one another; how we attract and repel, love or hate one another; not to mention the relations of the sexes, birth and reproduction. Such "remote questions" also receive no attention, of how a spire of grass grows; how the seed is converted into the plant, the flower into the fruit, and a thousand other "natural" things, which no son of man has ever come near unto solving.

Meanwhile the "simple" questions of the "world enigmas" are being solved with "logic clearness" and inner satisfaction. In the solution of these "simple" questions, no simple expressions are used. I have already called attention to a similar state of affairs in connection with Mr. Lunn's attempt at solving the question of vocal utterance.

In Prof. Haeckel's book such expressions occur as the following: Æsthesis, Amphimixis, Anangke, Athenismus, and thus it continues on throughout the entire alphabet.

The wisest man that has ever lived, and whose teachings still find an echo in every heart, never used any extraordinary phrases, but could find expression for all he wished to convey in the simplest terms.

We are starving for bread and they give us these stones of science.

These men delve into all things of a distant nature and have no use for what is nearest to us and concerns us most. In their inability to comprehend nature they once more revert to speculative metaphysics. This time into "material metaphysics," from which we can gain as little for our "daily bread" as we could heretofore from the study of any similar purely spiritual conceptions. As metaphysics heretofore reached out too far into speculation as to spiritual issues, this modern metaphysics reaches out too far into speculation as to material issues.

These studies may have a certain right to exist, a "raison d'être," from a strictly scientific point of view, but no good has ever been deduced from the same for the benefit and welfare of mankind.

Wer will was Lebendiges erkennen und beschreiben, Sucht erst den Geist herauszutreiben, Dann hat er die Theile in seiner Hand, Fehlt leider nur das geistige Band.—Goethe.

There is something comedian or carnival-like in all this. They "make up" in a heroic manner, and

finally unmask again without having accomplished anything of any inner value.

Amiel says: "Science is a lucid madness occupied in tabulating its own hallucinations."

The great naturalist and thinker, Ernst Haeckel, is honest enough to acknowledge this fact in making the following declaration at the end of his work: "We do not hesitate to say that, in regard to the inner working of nature, we have not to-day reached a standpoint which brings us any nearer to it than the one occupied by Anaximander and Empedocles, twenty-four hundred years ago; and it is as foreign to us and we are as much perplexed and in the dark in regard to it, almost, as they were."

I want to quote just one other sentence from this celebrated work: "The old world view, with its mystic and anthropomorphic ideas, is sinking into ruins; but above this field of ruins rises high and majestic the new sun of our Realistic-Monism, which opens up to us the wonderful temple of nature, etc."

It requires but the change of a single word in the preceding for us to stand face to face with a higher, a greater and a truer view of nature and of the universe; namely, the change of the word "Realistic-Monism" into that of "Realistic-Dualism." That is the only conception which can unlock to us the comprehension of the inner view of nature so unalterably closed to us up to this time.

From a philosophic standpoint, that is, from one capable of overlooking a diverse subject as a whole, it is for me sufficiently clear that the endeavor of science to penetrate into the mystery of life from the point of view of the observation of ex parte phenomena, is, and forever will be, futile. For this reason:

In making an effort to penetrate into the inner nature of our being, it is above all things necessary to view body and mind as correlatively related. The realistic-monistic mode of operation, however, is an attempt to solve questions of a spiritual nature (which to a very large extent relate to man alone), by trying to bring certain subtle material parts, more particularly in animals, into relation with spiritual issues.

I have shown the futility of such an endeavor in connection with the human voice; and all similar attempts made from the same narrow standpoint must also fail to be finally successful. In these endeavors the spirit is not taken any account of as a factor per se, but is viewed rather as an outcome of material parts, more particularly of those forming part of the nervous system and in connection with the brain.

It will not be denied that it would be impossible to establish anything of importance regarding our spiritual life by questioning the body alone in this respect; nor will it be denied that it is the spirit, which animates the body, that we must consult, to be able to obtain any solution whatever regarding the relation existing between body and mind.

I would have been as helpless as anyone else, if the accidental discovery of the œsophagus as an integral part in the exercise of speech, had not pointed out to me the fact that to definite parts of the body are assigned respectively the production of real and ideal parts of speech.

Thus the relation existing between body and mind

was established in regard to the exercise of vocal utterance. This gave me a positive hold, from which a start could be made for the further penetration into similar heretofore unsolvable questions.

It will be seen from this that in place of making the body a basis for my investigations, I have made the soul such a basis; the soul as it reveals itself in speech. Speech being the outcome of a correlative action as between body and mind, or a translation of the spiritual thought into the material sound of the voice, the study of its essence offers every opportunity, and probably the only opportunity, for man to penetrate into the correlative relation existing between body and mind.

I have observed the "living speech" as it emanates from us, and have obtained more knowledge from its study than it will, under the best of circumstances, be possible for me to properly communicate to others during the few years still remaining to me. I have looked into my inner being while making my investigations in place of looking externally, and this constitutes the entire difference.

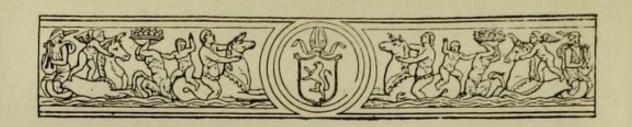
The further pursuit of these matters, it seems to me, will enable man to eventually penetrate into every relation existing between body and mind. It will even permit us to enter with an approximate degree of lucidity upon the contemplation of such questions as the condition of the soul before its union with the body, and of its state and condition after their final separation.

This knowledge will not assist, however, as far as I can see, to clear up the mystery of the relation exist-

ing between the creator and the creature, God and man. I have not made any attempt in that direction, nor does it appear to me possible for man, limited as he is to this body and this earth, to ever gain any positive knowledge regarding this relationship.

Supposing a watch to be gifted with a spirit proportionate to its limitations, would it not be a rash endeavor on its part to brood over the relation existing between it and its author, the watchmaker, not to speak of its presumption in trying to form an idea of the inner nature of the watchmaker?





THE TRUE CONCEPTION OF MY TASK.

A CRITICISM of my work, "Duality of Voice," from the same real-monistic standpoint of the modern natural-scientific investigation has appeared in the Berlin "Journal of the International Musical Association," Vol. IV, No. 4, which is published under the editorial auspices of Professor Oscar Fleischer. It begins by saying, "The performances of the author are such as to simply make a person's, educated in natural science, hair stand on end." To pay more particular attention to this critic's animadversions would be but to repeat the answers which have been given the other reviewers who travel the same path in the same way.

My reviewer has read my book most superficially, or he would not have constantly remained on the surface only, but would have at least, at times, entered a little more deeply into its real meaning. With other zoölogists he holds fast to "phenomena." But the human voice is an expression of our inmost being, and ever behind it lie physio-psychical causes. With such things zoölogy does not trouble itself. Nevertheless, the above-mentioned Journal has assigned the task of passing upon my investigations to a man

"trained in natural science." The result is shown by the thoroughly worthless judgment.

A physician or surgeon whose diagnosis rests upon false premises can only make matters worse by his treatment. There is no end of this trouble in matters of the voice.

"Unto the spirit's wings, alas, no wings material can be added," Goethe says. And yet it happens that wings material are added to wings spiritual, just in these studies that have to do with the inmost being of vocal utterance, that "mirror of the soul."

I fear that in the matter of depth of spiritual conception I have unduly exalted the Germans over the Anglo-Saxons, for there as here the same phenomena appear. It is due principally to the entire intellectual direction of our time, which finds a representative in my Berlin critic, and is a direct result of the materialistic conceptions of modern science. So far has this tendency been carried of late that even music and with it the "voice divine" have been forced into the maw of this all-devouring science.

What the above-mentioned critic has urged against me, I believe to have sufficiently answered in treating of similar objections. (See Appendix to this book.)

Only one thing deserves mention, namely, his satiric attempt to make it appear ridiculous that I expressed myself so "naïvely" as to my insufficiency to handle such questions as I tried to. Even my friend Schneider in his introduction to the German edition of "Duality of Voice" says: "On the other hand there stand in contradistinction to the places mentioned, a considerable number of other passages

where the author exhibits an extremely modest conception of his task." Against these insinuations I must defend myself. In relation to what I have discovered, tested from a thousand different directions and found ever true, I do not take a modest attitude. I have furnished the mathematical demonstration of the correctness of my obervations, for, starting not alone from the principles discovered, but from a hundred points, different from one another and unlike, I have always come back to the same principles as fundamental for the conception of the whole range of vocal expression. These principles stand firm as Gibraltar and will never be shaken.

Thanks to the proper comprehension of these principles it has been possible for me to batter a breach in the hitherto impassable wall of our spiritual being, by making a beginning in the knowledge of things hitherto regarded as unknowable. This "beginning" will give a new direction to the whole substance of the more or less *speculative* physiology and psychology of the present age, and will give these sciences a firm ground on which to build and develop in a safer manner than heretofore.

Although my discoveries seem important when taken in relation to the comparatively vague and sub-ordinate position held by the mental sciences up to this time, I am too deeply convinced of the insufficiency of the human mind to press into the core of the fundamental questions of nature, and of the mystery that surrounds us, not to recognize myself a mere atom in the universe. An atom that cannot and dares not forget for a single instant its own insig-

nificance and impotency, though it were an Aristotle, a Copernicus, a Galileo, a Newton, a Darwin, or a Helmholtz. Therein and only therein consists the "extremely modest conception of my task."

THE VOICE OF THE ESOPHAGUS.

Let me add a few additional observations on the " voice of the œsophagus."

I do not take credit for the discovery of it, for I am indebted for that to a mere chance that happened during the course of my experiments. But what I do take credit for is the fact that I at once recognized the meaning of this "chance," though not by far in its full significance, and have ever since been continually busy in working it out towards its conclusions.

If we assume, what undoubtedly is the case, and which I know from my own experience, namely, that in all things nature has a positive and a negative, an active and a passive, a spiritual and a material aspect, it will easily be seen that an invaluable discovery has been made in the recognition of the voice of the œsophagus as the negative, passive, material factor of vocal expression, and consequently of the realm of our soul and thought.

The purely spiritual factor lies too far beyond our ken to enable us to get possession of it all by itself; for the immaterial can only be perceived in connection with the material. Nevertheless, in the voice of the œsophagus I have discovered a bridge which leads from that which is patent to the senses over to the

purely spiritual through the correlative connection and the unity which exists between these factors. Through the recognition of this fact we advance an appreciable distance nearer the secret of life; for here for the first time we get light on the mediating link that connects spirit and matter. Without a knowledge of such a connecting link all our knowledge of the inner being of our nature and its potentialities remains one-sided and lacking in all inner consistency.

The cause of our previous exclusion from a knowledge of the inner motivation of our spiritual being was the fact that in seeking it men always looked outward as if in search for the nature of material phenomena, while we will never be in the position to know it till we are able to see into the spiritual treasure stored up in our own individual ego.

If I have been able to cast a look, no matter how limited, into the workings of spiritual forces, I have to thank the accident which revealed to me the voice of the œsophagus—a discovery which, viewed in the proper light, will be called the greatest physiopsychological discovery ever made. The debated question between monism and dualism will here find its solution. The correlative relation which exists between soul and body, rightly viewed, must give the key.

While in the confines of mechanics, physics, and chemistry we are continually told of wonder upon wonder, and the progress knows no end, in the field of the knowledge of our own capabilities, our powers of thought, our inner being and existence, in short, our soul-life, which alone brings those physical won-

ders to light, we stand to-day almost exactly in the same place where we stood thousands of years ago. While we press outward with enlightening search in nearly every possible direction, we ourselves remain the same unsolvable riddle. There must be, however, ways and means by which we will be enabled to press to the bottom of these secrets. Only a beginning need be made, only a breach in the hitherto impassable wall, and that, be it said with all due humility, I have done in these studies.

As far as language is concerned, the bridge of which I have spoken leads us from the inner being of such words as denote things that are perceptible through the senses, to such as present abstract conceptions. In the vocal expression of such words (the seat of the former kind being in the abdomen and of the latter in the thorax) an entirely different tone is used, which may be perceived even by an untrained ear.

But when I treat of this subject I am anticipating what is to be set out fully later.

MAN'S DUAL NATURE.

When I first commenced to write upon these subjects it never occurred to me to enter upon so vast an undertaking as that of "man's dual nature." I was inadvertently drawn into it. The study of the voice led on to that of the essence of language, voice and language being intimately connected and interwoven.

Considering that language in either its vocal or written form is the medium which conveys our

thoughts to others and theirs to us, it stands for all that constitutes our spiritual life; considering, further, that our spiritual life is intimately connected with our material life, it would seem that, if we were able to fully explain the phenomena of speech, we would, in so doing, be able to explain to some extent both spiritual and vital phenomena.

Speech is the outcome of material and spiritual factors. There is nothing in our composition or in connection therewith that so fully represents our dual nature. It is not only the representation, however, but at the same time the outcome of every agency at the bottom of and influencing our existence. Speech is spiritual by the thought which underlies it, material through the sounds in which this thought is clad. Hence it is spiritual-material, and in consequence offers a basis for investigation into our dual nature not possessed by any of our other faculties or functions.

It has been said, "I think, hence I exist." The corollaries to this are, "I exist, hence I live." "I speak English, hence I think and live like an Englishman." "I exercise my faculties and functions in the manner in which an Englishman exercises them; in which he produces his works of art which are of the 'English school'; his literary works which are in the 'English style'; his handicraft whose products are of 'English make.'"

Belonging to the English race, all his acts and performances are of the order of that race. While all men are alike anatomically, they differ in respect to the manner in which their anatomy is set in motion for the production of their idiomatic expression, for the outcome of their artistic, literary and other work.

I speak English, hence I am an Englishman or an American—in fact, an Anglo-Saxon. I belong to the Anglo-Saxon race. Or I speak German, hence I live and think like a German, etc. I belong to the Germanic race.

There are race distinctions of another order, of course; but as far as nationality is concerned, the drift of a person's spiritual and physical being, its dominating influence, is language. Every other influence, excepting that of heredity, is subordinate to this.

The influence exercised by heredity is of a different order and affects individuals only. The influence of language creates races and nations.

A person who speaks two or more languages idiomatically correct combines within himself the characteristics of the peoples whose language he speaks.

If language is capable of communicating our thoughts to others, and in so doing making others participators with us in *our* spirit, does it not seem logical to assume that if we should succeed in tracing the modus operandi in which this is done we would be able to reach the very fountainhead of our spiritual existence?

This is not a fantastic or exaggerated view, but one based on experience in connection with tracing vocal sounds and words to their origin.

Language, consequently as such, can be made a basis from which we could penetrate into the mystery

of life. It is the only basis, apparently, from which this can be done successfully. To spin metaphysical systems out of one's head, unsustained by scientific facts, no matter how great the mind, how deep the insight, is not apt to lead to results which will be acceptable as true by all. If philosophers would, instead, affiliate themselves with the woof and weaf out of which language is woven, they might reach such positive conclusions regarding our nature as the world has looked forward to ever since man has begun to think.

We cannot deduce facts from philosophy, but we can deduce a true system of philosophy from facts, as they obtain in the voice, when it embodies the correlation of matter and mind in speech; that is, when we can trace the sounds of speech to their material and spiritual origin.

SUBCONSCIOUS LANGUAGE.

I must take the material current of thought of the day in matters of the spirit by the horns and stop it in its mad career towards an aimless aim.

What an undertaking! Yet it must be attempted. The path before me is open, broad and clear, while that of the present psychology and physiology is tortuous, intricate and obscure and leads to nowhere. Why should not I succeed? It is a new education. Others must be taught to see as I do; many, no doubt, more highly gifted, will then be able to see further than I have been able to do. This world of ours will

become luminous with the light of lights, which is of the spirit, or the spiritual. This light has always existed. It has illumined all things but itself. We could not see this light of the spirit because we are the spirit. We could not see ourselves. It could not be apprehended because the mirror was wanting in which we could see its image reflected. That mirror is the conscious reflecting the subconscious; the apparent, the temporal, reflecting the real, the continuous; the phenomenon reflecting the noumenon. All our dealings are with the former; it is our world, yet we are rooted in the latter, without which the former could not exist. The temporal, the apparent, borrows such light as it possesses from the continuous, the real.

As our nights are illumined by the reflected light which the moon borrows from the sun, the latter being unseen, so are our lives lightened by the reflected light from the subconscious, which again, it appears to me, borrows *its* light from higher unseen sources. We must deal with the subconscious, with that which is *beneath* the surface, with the root, the principle of a matter, if we want to get at its true nature. There is no action of life of which we become cognizant which has not its first source in the subconscious.

During introspection the subconscious becomes the conscious, the conscious the subconscious. The former, which in our ordinary existence is the anode, becomes the cathode; the latter, which is the cathode, becomes the anode. The apparently real world for the time being recedes, and we live in a spiritual world, being cause to effect. Hence the truth can be

ascertained only, as far as mortals are at all capable of knowing it, when the spiritual within us comes to the surface and in so doing is "materialized," so to say, and thus becomes amenable to our consciousness.

Henceforth the spirit must be taught to see itself, to analyze itself, and the influence which it exercises in and over ourselves. The spirit which enables us to live, and will, and do, and communicate with others by word of mouth or of pen, which mediates between us and the world, the past, the present and the future; the spirit which presides over the thought expressed in this writing and permits my psyche to communicate with and enter the psyche of the reader.

The duality called speech is composed of vocal sounds as its material factor and thought as its spiritual. It is the only means at our disposal by which we can penetrate into the realm of the spirit; its material factor, vocal sound, permitting us to study its relation to thought, which is the spirit.

I did not go about this business of penetrating into the spirit of language in a deliberate manner and with purpose aforethought, but it came to me by my necessities. I have explained several times before that it was by attempting to arrive at the essential differences in the production of two such heterogeneous languages as the German and the English that these studies originated. They clashed at every point, and this gave me the opportunity of making my observations, which resulted in not only arriving at special laws regarding these respective languages, but also at general laws underlying the production of all languages. Among other things I arrived at the

extraordinary and remarkable fact that all languages, the same as every impression obtained through the eyesight, are at bottom the same; that their spiritual conception, that is, the subconscious or substructure, is of the same order, though their superstructure, which is of the body and the spirit combined, varies with all. Hence we speak of the "republic of letters," which is of the spirit and embraces all mankind, though it is composed of various nations and tongues, which are very unlike in their outward appearance and utterance.

If this were not really the case we would never be able to comprehend any language but our own. The foreign word would be eternally foreign, incomprehensible. No flight of the imagination would be able to make us comprehend that it would be possible to learn an *entire* foreign language by heart, unless every word thereof had a representative factor within us, coinciding with the word representing the same idea in our own language. If, in the place of using letters to represent a *word*, like the Chinese we had signs expressive of an *idea*, our writing could be read at once by every nationality using the same signs. For, after all, it is the idea represented by a word, not the word as such, which is a living factor.

This has already been partly explained (see page 180, etc., of "Duality of Voice") and will receive further elucidation hereafter. I here merely want to make a remark in this connection regarding the predominance of the spirit and our belief in a future life. If speech is the same with all peoples in its subconscious utterance, which is of a subtler nature than

anything we can become conscious of in a superficial manner through the ear, although it can and will be demonstrated that it exists as intonation, and that speech cannot be audibly uttered unless this subconscious element pervades it; I say, if this is the case, if there is a spiritual language which is the original motive power of speech with all peoples alike, would not that go far towards demonstrating the truth of the concept that the soul is the positive factor presiding over our existence, whose negative is the body, yet beyond our sensible conscious conception? Must it not also be assumed that if there is a life for the soul of the hereafter and an intercommunication of the spirits therein, that there must be a medium in the shape of a language all can understand? A Volapuk of the spheres? Thought communicating with thought. Considering that language on this earth, going back but a few centuries, is of an endless variety, intercommunication among the departed would be impossible, unless there be a spirit-language used by and comprehended by all.

This spiritual conception and utterance already exists, as stated, on this earth unconsciously with all mortals alike; it expresses the thought through the "intonation" of the word apart from the word's incorporation in the sounds of speech.

We cannot become conscious of the meaning of this spiritual language, because we are incapable of comprehending the true nature of anything purely spiritual, pure spirituality belonging to a sphere beyond our sphere. Owing to this fact we cannot have communication with the departed, nor they with us. If we were able to express our thoughts in the subconscious or spirit-language, which we now use in connection with our conscious language, it seems to me we might be able to communicate with the spirits of the departed.

The fact that the spiritual undercurrent is precisely the same for all languages appears to me of great psychological importance. It has assisted me more than anything else in the correct pronunciation of the English language, and will, if once properly understood, assist scholars in every land learning to correctly pronounce other tongues in addition to their own. No book or teacher can teach this as we can teach it to ourselves; nor will it be possible by mere "imitation" to ever attain the same result.

When I want to ascertain the correct pronunciation of a word, say, in English, French or Italian, I utter the word, not aloud, but mentally, spiritually, by vividly thinking it, in my native tongue; from this spiritual form I can at once elucidate the corresponding word and speak it correctly aloud in any other language that I am at all familiar with. German being my native tongue, and hence the language which I always speak idiomatically correct, I thus think of the word in German. Without the slightest hesitation, like a flash, I can then utter the corresponding word of another language idiomatically correct, no matter how different it may be in its spelling or construction. This fact, however, naturally applies only to such languages as one is already familiar with in their general character, at least. I can in this wise pronounce the

foreign word correctly without any apparent change in the vocal organs taking place.

With words which are in dispute as to their correct pronunciation, in the English language, for instance, which on account of its composite character occurs more frequently than with any other language, I can thus, almost without hesitation, determine the correct mode of pronunciation. When I am not sure as to the correct intonation of a foreign word I always resort to this mode of ascertaining it and very seldom fail in hitting upon the correct utterance. It must be upon the basis of this fact that Mr. Alexander Melville Bell was able to build up his system of "Visible Speech," which embraces all languages.

Thus the subconscious language, which is of the mind, predominates over and rules the conscious language, which is of the body, and is of such a different nature with different peoples. When I say "of the mind," I mean, of course, that the mind predominates over the body; when I say "of the body," I mean that the body predominates over the mind.

In all matters of which we become conscious body and spirit are in correlation, and it must be assumed that in all such cases either material or spiritual factors *predominate*, as neither the ones nor the others ever act exclusively by themselves.

Speaking of "correct" pronunciation or orthoëpy, a question of considerable importance with Anglo-Saxons, as regards their language, I should like to know who determines and what determines what is correct and false in regard to the same. In most other languages, not interlarded with so many foreign

words, the pronunciation is "natural" with the people and but seldom in dispute. With Anglo-Saxons it is a question of "usage" among the best people; but the question is never raised "what principles underlie this usage by the 'best people,' what is it based on?" I say it is based on the subconscious intonation, pervading all languages, which in its "special expression" is made to conform to the physical instrument of every separate nationality. It is by no means arbitrary with the "best people," but they instinctively feel what the subconscious expression of a word is and regulate their speech accordingly. If this were not the case such expression or pronunciation could never become the same with all the different members of a nation.

THE THING AS SUCH. "DAS DING AN SICH."

Thus the spiritual import of the word in its subconscious relation determines its intonation and in connection with the body its pronunciation for every separate language.

Now what, in fact, is the word? It is not a thing belonging to us, nor is it something inherent in an object, either concrete or abstract. It is not a thing that emanates from our understanding, nor is it a direct outcome of our will.

Upon closely examining it, it seems to be unsubstantial, a mere shadow, a phantom.

Yet this shadow, which is neither subjective nor objective, has the power to mediate between me and the world, to make me part of the world and to make the world part of myself.

The word assumes the title of everything we become cognizant of. It takes its place. It assigns a status and a condition to all things. The mere perception or cognition of things would not suffice to make the thought thereof amenable to us and to others. But for the word, perception and cognition would remain vague and shadowy. The word puts a stamp upon them and the things they represent, which makes them pass current the world over, not only the world of the present, but in its written or printed form also that of the past and the future.

The word is neither in time nor space; yet it determines both time and space in relation to the world and ourselves.

All things may exist and probably do exist quite apart from ourselves; yet unless we become cognizant of them, either directly or indirectly, they have no established existence for us. Hence, for their rightful existence it is necessary that there should be an object not only, but also a subject that can recognize them. If it takes two separate factors, however, an object and a subject, to give a thing a standing as such, there must be something that mediates between them to facilitate this conciliation and make it possible.

This something takes away a part from both subject and object and unites them in itself. Now, what is that which is taking away a part from both subject and object, without really reducing the entity of either,

yet in so doing mediates between the two? That thing is the word, which for all practical purposes is "the thing itself." Through the word we can bring all things far and near, concrete and abstract, within our reach and the compass of our knowledge. Without the word we would be lost; we could neither express our thought or communicate it. It is our anchor and stay in this world of appearances. The congenital deaf lack but the "word" to comprehend as others do. As soon as Helen Keller, or any other congenital deaf and blind person, became cognizant of words their spirit commenced to expand, while previous to that time their mind was beclouded, almost as much so as a dumb beast's. It is generally conceded to be a greater misfortune to be born deaf than blind. To be born deaf means the blindness of the soul through the absence of the "word," which unites the outer world with the inner and the inner with the outer.

The word, while both giving and taking, yet still leaving both subject and object intact, itself also remains intact. It never changes its own status. It always was and always will be; its form may change, but its inner being remains the same.

A word stands for a thing, no matter what order it may belong to, though, itself, is not the thing it represents, or which we become cognizant of. Yet standing for the thing, it mediates between us and it, and in so doing is the thing itself as far as we are concerned; for without it there would be neither subject nor object to recognize or to be recognized.

Now, as a matter of fact, the word is really part of

ourselves, and also part of the object it represents. It is both, inherent in us and in it.

Of this fact I shall have further proof to offer. The word at bottom is universal, though with different peoples it is couched in different forms. The thought, or idea, being universal, its representative, the word, must be. I have attempted to ascertain what mediates between the thought and the word, so as to give currency to the latter in all the different forms of language among all the different nations. This idea has naturally led me on to attempt to determine what mediates between subject and object. I feel confident that the answer is, the word; that the riddle which Kant has given the world to solve, under the phantasmal expression of the "thing as such," and which philosophy ever since has endeavored to give a comprehensible form to, as a matter of fact, is what is represented by the "word."

By penetrating into the true essence of the word I have learned that it connects our inner being with our outer, our subconscious with our conscious. Cut this connecting link of the word, and with all the physical machinery of our faculties perfectly sound, we are hampered in their exercise in every direction. We think in words. They give the abstract conception a concrete form. Hence the concentration of our spiritual cognition into the material form of a word is the connecting link between mind and matter. The word mediates between the soul and the mind (the subconscious and the conscious), and the result is recognition, comprehension, understanding.

Speculative philosophy in its metaphysical endeav-

ors has wound a coil, serpentinelike, around and around this truth without having ever been able to penetrate into it.

MATERIAL-IMMATERIAL.

We distinguish as between things material and things immaterial in conformity with our ability to recognize them through our senses or to not thus recognize them, but to become cognizant of them in a spiritual way.

This is the main division we make as between all things of whatsoever origin or nature.

It has not been heretofore given to us to recognize the true nature of things immaterial except in the way of their relation to other things, either spiritual or material. Incidental to the discovery of the voice of the œsophagus, however, it will hereafter become possible to recognize the nature of things spiritual also in a direct manner, that is, regardless of their relation to other spiritual or material things.

As in language we find expression for all things that come within the scope of our knowledge, I call words representative of things recognizable through our senses, material; words representing things not thus recognizable I call spiritual. As words represent substances and ideas, or things concrete and abstract, I consequently call the former material, the latter immaterial or spiritual.

Now, it is a remarkable fact, never before noticed, that this difference is represented by a demarcation line of the most decided character in the *production* of these two great classes of words; and that the sound of the words belonging to these classes is also of a decided different character.

The division as between material and immaterial finds expression in the sphere of our body in such a manner that all things material are represented by the hemisphere of the abdomen, all things immaterial by that of the thorax.

Of all the startling discoveries I have made, I was confronted with this one as the most startling; the most startling, perhaps, of any that has ever been made within the entire radius of our human experience.

The diaphragm in dividing thorax and abdomen, at the same time divides all that is material and immaterial, physical and spiritual in our composition. To simply call attention to this fact, even without proving it, would suffice to at once recommend it to our understanding.

The "breast" is always spoken of and thought of in conjunction with things spiritual, the abdomen with things material. That they should be the "seat," however, the "abode" from whence these respective representations or spiritual elements in the shape of words emanate has never been stated. I shall offer incontrovertible proof in great abundance to sustain this assertion.

I ascertained this all-important fact during my endeavor at pursuing from my German standpoint the mystery of the "idiomatic" expression of the English language, commonly called "pronunciation." The word "pronunciation," usually used in this sense, even in our best dictionaries, is improperly defined. The Standard has this:

Pronunciation: The act or manner of pronouncing words or syllables; used absolutely for *correct* pronunciation, as "to acquire the French *pronunciation*."

The very word "pronunciation" is in dispute as to the correct manner of pronouncing it, and so are a great many other words in the English language. There is no dispute, however, as to the "idiomatic expression." All native-born persons utter every word in their language "idiomatically" correct; they cannot help doing so, no matter what their pronunciation may be. Not so with foreigners; though they may pronounce words "grammatically" correct, they never utter them "idiomatically" correct. They always speak a foreign language with an "accent."

In therefore saying, as the "Standard" does: Pronunciation is used absolutely for correct pronunciation, as "to acquire the French pronunciation," is an explanation that does not explain, as it tries to hit off two ideas, different and apart, as one and the same.

An Englishman after acquiring the French pronunciation will still pronounce French with an English accent; he will not speak it idiomatically correct.

This distinction must be prominently borne in mind in connection with these studies. The Englishman acquires the physical habit, the dress of the French language, in his pronunciation, its soul he cannot acquire.

I have entered into the soul of language, and in so doing have inadvertently entered into the soul of man.

We speak of the "soul" as something apart, almost outside and beyond us, as something mysterious that we may never know. We shudder at the thought of ghosts or souls apart from their bodies entering our presence. Yet the soul enters our presence and communes with us, or through us with others in every word we utter or hear others utter.

In entering into the soul of language I have ascertained facts, which, when properly understood, will enable us to become possessed of the soul, or idiomatic expression, of every foreign language. They will at the same time enable us to give every word in our own as well as in foreign languages its true intonation. As classes of words emanate from various parts of the body in conformity with their meaning, or the idea they represent, we can learn their proper intonation for speech and song by closely watching the manner of their production.

There is no other way in which this can be done scientifically or *knowingly*; though there still remains, of course, the way of producing speech and song instinctively, or in conformity with our hearing; that, however, it must be admitted, is a very unreliable guide for artistic speech production.

Before discovering the fact that the hemispheres of the thorax and abdomen respectively represent immaterial and material factors, I had previously ascertained, though in a somewhat vague manner (in fact, it was one of my first discoveries), that *some* vocal

sounds belong to and emanate from the thorax, while others belong to and emanate from the abdomen. I finally succeeded in positively locating these sounds in the respective parts of the viscera in which they have their origin. I had also ascertained that sounds, as it appeared to me, passed through the diaphragm and came to the surface on its opposite side, in conformity with the fact whether they emanated from the thorax or the abdomen.

This was succeeded by the discovery that words passed through the diaphragm in a similar manner, and that those of a material order, or rather words representing things material, made their appearance on the upper surface, and words representing things spiritual on the lower surface of the diaphragm.

This was a very puzzling fact, as I could not comprehend how words representing abstract ideas could come from the side of the abdomen and then pass into the thorax and come to the surface through the trachea; nor how words representing material elements could come from the side of the thorax and then pass into the abdomen and come to the surface through the œsophagus.

I finally ascertained that this apparent passage through the diaphragm was due to the fact that for the "composition of words" sounds make an impression on the diaphragm in a similar manner in which for repoussé work by striking with a pointed tool (by means of a hammer) against a metal plate a design is made on its reverse side. The tool thus used is the tip of the tongue, the hammer numerous

spiritual and material agencies, and the metal plate the diaphragm, whose movements correspond with those of the tongue in an inverse manner, the impressions being made partly from above the upper and partly from below the lower side of the diaphragm.

It will thus be seen, that while the "picture" for a material word appears on the thoracical side of the diaphragm, the performance takes place on its abdominal side, and vice versa, for a word representing an immaterial idea, the "picture" appears on the abdominal side, while the act which produces it takes place on the thoracical side.

This repoussé work of ours, however, is of but momentary endurance, the impressions being obliterated almost as fast as they are made. The pressure of the air on its other side, owing to the redundancy of the elastic texture of the diaphragm, at once sends these impressions back to and, for a moment, beyond the surface on which they originated. This action following immediately upon the production of the various sounds of which a word is composed welds these sounds together into the word and gives more or less vigor to its component sounds as well as to its expression as a whole.

It goes without saying that our repoussé work is always artistic; artistic even when it emanates from low and vulgar sources; but that it advances in degree to the highest performance with the excellence of the source from which it emanates. It may be, and of course is, in many instances more mechanical than artistic, dull and unimpressive; and it may be flooded

with light and its accompanying shade, stirring and soulful.

It must also be understood that while the tip of the tongue is responsible for the production of sounds, the movements of the body of the tongue are instrumental in the arrangement of the constellation of the word. This is a most remarkable and highly interesting observation. The tip of the tongue while acting in connection, at the same time, acts independent of its body; but never vice versa, the movements of the body of the tongue being always subservient to and in connection with those of its tip. In other words, the "body" of the tongue never acts independently by itself. While we can produce vocal sounds without words, we cannot produce words without vocal sounds.

The production of vocal sounds by the tip of the tongue antecedes the movements of the body of the tongue for the composition of the word, in a similar manner that the founding of the types antecedes their use by the compositor for precisely the same purpose; only that in the material-spiritual composition of a word the making of the types and the setting them up are transactions which are closely and intimately connected.

The movements of the tip of the tongue and those of its body are correlated and of dual nature; the former representing the material and the latter the spiritual element of this duality. Sounds, as such, being of a material, the word representing a meaning, of a spiritual order.

In the production of a simple (not articulate)

sound the tongue's tip, while extended, assumes a vibrating motion, its body meanwhile remaining quiescent.

For an articulate or *vocal* sound there is at once a movement of the body of the tongue in correlation with its tip. For the expression of words these movements assume a compass of the greatest variety.

The reader may find difficulty in proving these assertions by making experiments with his own tongue. Personally I experience no such difficulty. Devotion to these matters for many years has placed me in possession of many things which cannot be attained in any other way. I can make any part of the tongue rigid and notice the consequences. A perfect proof of the correctness of these statements can also be found in the fact that upon making the diaphragm rigid I can continue to freely utter simple sounds, but cannot utter words representing a spiritual meaning, while I can utter words devoid of meaning; that is to say, when I attempt to utter words of a capricious and meaningless composition.

It appears to me that the ability to utter simple sounds and to speak by their aid is done by means of a rupture as between the conscious and the subconscious. Such a condition, it seems to me, offers greater advantages than any other for the arrival at a proper insight into physio-psychical facts. Simple sounds being the primitive sounds in which aboriginal man first attempted to speak, vocal, i.e., soulful sounds coming to him at a much later period. The ability to use both, offers inestimable advantages in comparative studies of this nature.

The master who makes our repoussé work, or engraving, as I prefer to call it, is thought. As from an engraving on wood or stone, by mechanical means, the picture is printed, so from *our* engraving arises the expression, the tone. Hence, as I have said, the impression is thoughtful, the expression, being mechanical, thoughtless.

The impression for vocal utterance being made on the elastic surface of the diaphragm, the main feature of an artistic vocal expression is the "elasticity" of its tones. The higher the performance the more pronounced will be this quality of elasticity. The deeper the lines the fuller will be the tone. An even tone is the result of an even impression; a tremolo is a succession of impressions repeatedly made and as often released. Where feeling enters into the performance the impression is shaded from dark to light and from light to dark.

It was not until I had fully established these facts and guided my speech in conformity therewith, that the same commenced to be freighted with the soulful expression of the English idiom; while, theretofore, as with all foreigners, this expression was wanting. Nor had I been able until then to produce pure sounds, which from now out, guided by correct principles, and advancing from step to step, I was able to utter with ever greater purity as I penetrated, deeper and deeper, into the mystery of the formation of sounds and language.

The significance of this for song production cannot be over-rated. We cannot overcome our deficiencies and attain a pure and soulful expression until we com-

prehend the laws which influence vocal utterance and adapt our speech and song to these laws. There may be rare instances in which nature has bestowed this expression upon a person as a natural gift; as a rule, however, for perfect artistic expression, it must be acquired, not by haphazard effort, but by proper insight.





FORMATION OF THE WORD.

THOUGHT makes its impression through a combination of material and spiritual agencies. The spiritual impression made by thought is sustained by an inspiration or *repression* on the part of the material air on the other side of the diaphragm to the one on which such impression is being made. This repression sustains the impression while the formation of sounds into the word is being completed and at the same time imparts to the word its proper intonation.

A further inspiration on the side of the diaphragm where the impression was first made then produces a pressure on the repression, and while obliterating it, gives the first impulse to the sounds of the word, which are reinforced by the vocal cords of the trachea and the œsophagus and resonated on the sounding boards of the oral cavity and the pharynx. This pressure and repressure during artistic song production is frequently repeated during the expression of a word, and thus infuses feeling into it.

Every word, therefore, requires at least three distinct actions for its production, one each for the impression, the repression and the expression.

The second movement, that for the repression, is

the most important, as all the *feeling* intended to be conveyed is concentrated in the same, it being the artistic movement for the proper production of the spiritual meaning of the word. Hence the formation of a word and its expression is not a single movement in any single direction, but is composed of many movements, which give shape to the word. It is of a similar order to that by which the sculptor forms parts of the model of his statue by pressure and repressure, after the soul had given shape to it in his mind.

The main movements being threefold, the number three is of axiomatical importance in vocal utterance. Our mode of breathing for these three separate yet connected actions is apart from our vital mode of breathing. Inspiration and expiration for vocal utterance succeed one another as rapidly as the thought does to which they give utterance, and are interrupted only by a minute pause, during which the impression is made for the succeeding word. Hence breathing for vocal utterance is irregular and depends entirely upon the character of the word which is to be expressed.

The process of breathing for spiritual purposes is carried on independent of, yet in conjunction with, the one which is carried on for vital purposes; it being far more rapid, however, than the latter, on account of the thought which underlies it. Its irregularity necessitates the occasional pauses for "taking breath," inspiration and expiration not always equalizing each other as for mere vital breathing, during quiet sleep, for instance. The more imperfect our vocal utterance, the oftener will it be necessary to pause for taking

breath; perfect vocal utterance being a harmonious performance as between our vital and spiritual modes of breathing. While the two processes of breathing are separate, yet they sustain each other during ordinary conversation; or if there are any irregularities they are easily bridged over during the quick flow of language. For the artistic performances of oratory and song, however, every irregularity in the harmonious performance of this measured and impressive mode of utterance is at once felt as disharmony, caused by some irregularity in the fusion of the performer's vital and spiritual mode of breathing.

Spiritual influences prevail over vital, hence the former, during vocal utterance, always take the lead. The "channels" used for either purpose, of course, are the same in all instances, but the course of the "currents" (spiritual as well as material) differ with every nationality, each nation breathing in its own peculiar way for the production of its special idiomatic expression.

This will again explain the influence of the idiomatic expression upon vital and spiritual phenomena, as witnessed by national traits of character and national physical appearances.

Animals of a low order are apt to breathe in precisely the same manner, for each species, the world over. Animals of a higher order, however, no doubt breathe differently for each species, and in many instances also for every variety in conformity with their necessities and surroundings.

In conformity with the preceding it will scarcely be necessary to call attention to the erroneousness of

"special breathing exercises" as preparatory to vocal utterance in singing, etc. Breathing exercises, however, for vital purposes, are highly influential and beneficial. While promoting a person's health, they also strengthen the channels through which breathing for expression is carried on.

When the spiritual system is properly started by correctly breathing for the same, both systems will properly fall into line. Hence, for a correct performance, the proper "attack" is of vital importance. Yet there are entire systems which participate in the production of vocal utterance, as the vascular, the lymphatic, and the spermatic systems, which apparently do not always participate in breathing for vital purposes. This makes the task upon which I have entered so great that I can at most expect to be able to throw out a hint here and there, a suggestion which may serve as a landmark to future investigators.

Having written about these matters at various periods, I also beg to submit the following, being a somewhat different version of the preceding.

When a word represents a spiritual idea, the impression is made on the thoracical side of the diaphragm; when it represents a material idea, it is made on the abdominal side. The expression follows on the same side on which the impression is made.

This is to be understood as follows: Thought makes impressions on the diaphragm of a similar order in which the artist's steel draws the lines of a picture on a prepared metal plate, which lines, for an etching, wil be deepened by an acid poured upon them while the rest of the plate is protected against its influence.

Almost simultaneously with the lines thus produced during inspiration on one side of the diaphragm there is an expiration, succeeded by an inspiration on its other side. This last inspiration (supposing the "plate" to be elastic and the "engraving" penetrating to its other side), in repressing the lines, is productive of sound on the side where the engraving has been made. Thus inspiration and expiration during and for vocal utterance succeed each other in constant and rapid succession.

The process described in the foregoing, regarding the formation of words, is an outcome of close observations of subtle actions actually going on within us. These observations have been made very frequently and are doubtless correct. As a matter of fact, they are observations of atomic and molecular movements for the production of sounds, which range themselves into the forms of syllables and words. The vowel sounds are molecules composed of spiritual atoms around which the consonants, which are molecules composed of physical atoms, range themselves as in a cluster.

The clearer the thought, the more rapid and perfect are these movements, and the purer their outcome—the utterance of the word. The idea, which with all peoples originates in the same vessels, but with all is expressed in a different manner, is thus translated into words.

THE MOVEMENTS OF THE TONGUE.

The impressions thus made on the diaphragm originate through motions of the tongue. For English vocal utterance a downward movement of the tongue as well as one to the left are productive of an inspiration, an upward movement as well as one to the right of an expiration. For German vocal utterance an upward movement or one to the right means inspiration, a downward movement or one to the left expiration. The same movements are made by the diaphragm in precisely inverse directions.

Have you ever watched a child's tongue protruding from his mouth while "artistically" drawing pothooks or the signs of the letters of the alphabet? The tongue follows the lines up and down, to the right and left, and while doing so the child breathes alongside of its tapering tip either for inspiration or expiration. The greatest artist's tongue does precisely what this child's does, and so does the tongue of every one of us, under similar circumstances, though we keep ours discreetly within the boundaries of the oral cavity.

Our tongue makes motions of a similar nature while we are singing, reciting, drawing, painting, guiding the bow of the violin, playing billiards, or during any other performance in which exactitude and artistic feeling enter. For ordinary speech or any other performance of an ordinary character similar movements of the tongue obtain, but they are carried on more rapidly and automatically.

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While drawing a line to the right move your tongue to the left and you will not be able to continue to draw your line; your hand will come to a positive stop. It will do the same if you move it to the right while drawing a line to the left. You can test this by firmly imbedding the tip of your tongue into the opposite side of the jaw from the one in which you intended to draw your line, but be sure you hold it there constantly; the moment you release it, give it the slip, you can continue drawing your line without hindrance.

While firmly holding the tip of your tongue against your teeth on the left side you will be unable to write from left to right, but the slightest release will enable you to do so. The opposite facts obtain with Germans. Upon making the anterior part of the abdomen rigid an Anglo-Saxon will be unable to write, though a German may. Upon making the anterior part of the thorax rigid a German will be unable to write, though an Anglo-Saxon may. On the other hand, upon making the posterior part of the abdomen rigid an Anglo-Saxon will be able to write, though a German will not. Upon making the posterior part of the thorax rigid a German will be able to write, while an Anglo-Saxon will not be able to do so.

Upon holding your tongue quite still, which you may succeed in doing by making it rigid or holding it firmly between your teeth, you will be unable to make any motion with your hand whatever, or, in fact, any motion of any kind.

Similar observations may be made endlessly. In fact, I am well convinced that the impressions made upon the diaphragm are not merely of a positive na-

ture, but also of a negative. That is to say, every act and action, not only of a positive order, are recorded on the diaphragm after having been first received by our senses, and are then transmitted to the nervous system in connection with the brain, whereupon we become conscious thereof; but every impression of a negative order also, e. g., while studying a picture, line for line, tint for tint, atmosphere, distance, etc., just as we see them are reproduced thereon. In other words, we do not see, hear, feel, smell, or taste in a direct manner, which enables us to at once become conscious of the impressions produced by these acts, but always indirectly, in the manner described. The impressions are first made upon the different vessels of the viscera, then upon the diaphragm and thence upon the brain by a peculiar mode of breathing for each special performance.

This, however, is the English version; with Germans the impression is first made upon the brain, then upon the diaphragm, and finally upon the respective vessel of the viscera. If we contemplate the marvellously intricate construction of the diaphragm we may well conceive that every impression may not only be duplicated, but also *recorded* there, the same as it is likely to be on the convolutions of the brain, and that such impressions may be recalled to our memory by the inner surfaces of our organs of sense in relation therewith, and a correlative action, as between diaphragm and brain, representing as they do matter and mind.

I am also convinced that there is an activity of the tongue connected with every impression, not only in

connection with vocal utterance, but with every other subject of which we become conscious.

Observations like these in connection with the movements of the tongue and the recognition of the fact that a line horizontally drawn through the exact middle of the diaphragm divides the body into an upper and lower half, respectively representing things immaterial and material, led to the recognition of this additional fact that a vertical line which divides the trunk of the body into a left and a right half, also respectively represents things material and immaterial; the œsophagus representing the left, the material, the trachea the right, the immaterial side of this division.

That the motions of either the right or the left hand, arm and body, during conversation, or while reciting, acting, or singing, are made in conformity with the facts just mentioned it will be my endeavor to prove later on in conjunction with the subjects of motion and locomotion. That our hands, the same as our tongue, are permeated by spiritual factors, is proven by the gestures which they perform and by many other facts. The hands and the tongue, the same as the tongue and the diaphragm, act correlatively. The hands are for art what the tongue is for vocal utterance. The hands and the tongue are the only factors in our composition which are able to move with absolute freedom and are subject to the dictates of the will.

The upper part of the body, as well as its right side, consequently, are representative of our spiritual, the lower part and the left side of our material life.

While the upper part and the right side are thus spiritual, and the lower and the left side material, the thorax, though spiritual, in connection with its left side, is also material; and the abdomen, though material, in connection with its right side, is also spiritual. This is the English version, the German is the reverse. These facts must be well borne in mind if we want to comprehend the true nature of vocal utterance.

A motion from the upper right to the lower left, piercing the diaphragm near its centre, which is the basic line for German thought and speech, consequently embraces not only spiritual and material, but also spiritual-material and material-spiritual issues; while a line from the lower left to the upper right, which is the line for English thought and speech, embraces the same issues in a reverse order.

All this, no doubt, is very puzzling; but it can, all, be satisfactorily explained, after sufficient reflection, study and experiment. Many other things, which, when I first obtained knowledge thereof, were apparently contradictory and irreconcilable, have since become clear to me.

INTONATION.

If there is anything in man's composition that stands for his spiritual being, it is thought and its representation, the spoken language; the *spiritual* translated into the *material* sounds of speech.

As thought represents every phase of our spiritual

life, and as language with civilized peoples very nearly possesses words expressive of every thought and feeling, does it not seem likely that if we should succeed in tracing the material word to its spiritual origin, we would come nearer to the knowledge of the actual state of inter-relation of our dual being than we could in any other way?

We must not forget that the *meaning* of a word as expressed by its "dynamic" or subconscious intonation, no matter what form such word may assume in the different languages, is always of precisely the same order.

In using the word "subconscious" I mean what is transcendentally immanent within us and of which we become conscious through the "intonation" embodied in the spoken word. As the concept is the same, or very nearly the same, with all peoples alike, so is this subconscious intonation, or expression of the concept, which is in no wise subject to the will.

When a person sees an apple, no matter what country he lives in, or what language he speaks, there is in the *intonation* of the word expressive of the idea conveyed by the sight of an apple something which is the same in all languages. It is not, however, so much, as far as I have been able to trace it, expressive of the species "apple" as of the gender "fruit"; though closer observation may even lead to the recognition of the particular species.

The same remark applies to words of an abstract order.

The proof of the correctness of this remark lies in the fact that while vocally expressing a word belonging to

the same class, as, f.i., a word representing an animal of the genus cat, one of the virtues, etc., the position of the vocal organs remains unchanged for all words of the same order. This applies not only to our own, but to the expression of the same idea in any other language. Even for words of the most heterogeneous derivation and mode of spelling, as key, Schluessel, clef; or country, Land, pays; or handsome, schoen, beau, etc., the intonation imbedded in the word and the position of the vocal organs producing these words is precisely the same. As soon as a word of another order is to be produced, however, the position of the vocal organs, as well as the intonation, at once undergoes a change. In consequence of this fact I have traced entire "groups of ideas," as to their origin, to the same organs of the body.

I have spoken of these matters elsewhere; but what I want to say in connection with these facts now is, that they offer an opportunity for entering into the heretofore inscrutable mystery of man's dual nature. He who can solve the mystery of the "word" has found Aladdin's lamp, which will throw light into the innermost recesses of the soul. The reason is obvious; the spoken word is both material and spiritual; material in its sound, spiritual in its intonation, which represents its meaning, it being soul and body of a thing of which we become cognizant. What we become conscious of outwardly through the spoken word is a reflection of our inner being.

I have thus found in the spoken word an entering wedge into the mystery of the soul.

When Goethe says in his "Faust":

- "Geschrieben steht: Im Anfang war das Wort!

 Hier stock ich schon, wer hilft mir weiter fort?

 Ich kann das Wort so hoch unmoeglich schaetzen,

 Ich muss es anders uebersetzen."
- "At first there was the word! thus it is writ;
 I must already pause; who will assist my wit?
 It is not right the word so high to rate,
 I must endeavor better to translate,"

he was ignorant of the true significance of the word.

Some "kind" of language is a gift possessed by all men. Discoverers of islands in mid-ocean, never before visited, found their inhabitants possessed of a language. Such language, no matter how constrained it may have been in words, was composed of the same elementary vocal sounds as their own. If it had not been, it would have been impossible ever to comprehend it and establish an intercourse. All languages are composed of the same vocal elements. These elements are spiritual, and as such universal. They belong to man's spiritual system, as much so as any part of the body belongs to his physical system. These spiritual elements are of the same order in the first mutterings of an infant in civilization as in those of an infant in the most barbarous state on the most isolated island in mid-ocean.

There is a predisposition with every child to speak; a positive want to express itself. Yet there is no original disposition with man to express himself in any given form; more especially to speak like his parents, as is often assumed. The spiritual conception is free, but it is wrought into a given material

form of language through education. One language may be elucidated from an infant as well as another; which also shows that, though the *form* may differ, the *spiritual expression*, the intonation, in which the spirit expresses itself apart from any constraint of form, is always the same. A given language once elucidated, however, and continued for some time, becomes a fixed habit.

If vocal sounds were not spiritual elements and if words representative of ideas were not spiritually imbedded in our nature it would be impossible to always use the same word for the same thing or idea, and to consistently do so during a person's entire lifetime. It would be impossible for children and certainly for infants to thus use them. Even assuming that a grown person's "memory" should be so wonderfully developed as to enable him to use the same terms always for the same idea, in connection with children, more especially with *dull* children, this would be a supposition impossible to sustain, as it would be an example of a most prodigious feat of memory, not at all commensurate with their other faculties.

Even grown persons who speak their language fluently, often hesitate when it comes to a name, which is an arbitrary appellation, not inherent in a thing, and relatively not inherent in the speaker. How then can it be explained that an entire nation of millions of people, scattered over a wide territory, many of whom of a low mental order, should all be able to express themselves precisely alike? That Indians, who cannot count three, one and two being all some tribes of

bushmen have an expressive term for, should be able to use an entire range of words, no matter how limited, by their entire tribe, scattered far and wide? That entire nations should be able to understand each other in the translation of words from one idiom into another? It would be impossible to understand the meaning of a dead language, once belonging to a nation long departed, if it were not for the fact that what is spiritually embodied in every man's nature, when joined to what is spiritually coming to him from without, did reproduce in the word what is known to all alike in the spirit, and that the same facts have always prevailed with man from time immemorial. That the form of the word changes in different languages is due to the form of the vessel from which they emanate; the shape which the body assumes in conformity with its language being characteristic of the expression of every separate nation.

In locating language I have located the spirit, which leads man into and out of and beyond himself, and makes every thinking individual a centre of the universe. While we occupy a minimum of space, our individuality, in conformity with our spiritual endowments and capabilities, though often confined to a narrow circle, may extend to endless regions beyond.

These things must not be regarded as the mere outcome of speculation. I possess positive knowledge thereof by virtue of my studies into the life, character and being of the living vocal utterance, and hence of the spiritual life of two such heterogeneous nations as the English and the Germans.

If what we call speech were simply mechanical, the effect of the expired air upon the vocal cords, we could not give utterance to our thoughts; we would, in fact, be thoughtless; we would be reduced to a state as low as the dumb beasts, groping our way along the ground, never raising our eyes to the sky; we would be unbeknown to ourselves and our fellows, callous to all feeling beyond hunger and pain, devoid of every higher instinct, knowledge and aspiration.

Language, however, is not only our best spiritual possession, it is also of vast importance for our physical development. The deaf are not only crippled mentally, but also physically. Speaking predicates thinking, and both thinking and speaking mean breathing, not only through our lungs, but through our entire system, not only of the air and its oxygen, but also of the ether, magnetism and electricity; the words we think and utter, while they are permeated by these agencies, permeate our entire being.

Science has confined itself to such investigations as could be pursued by means recognizable through the senses. The results have been in conformity with this mode of investigation. A mass of facts have been gathered, very interesting in themselves, but there is a want of concatenation; the spirit is wanting which unites them, as it unites a human being out of a thousand facts into one living homogeneous entity.

We can reach conclusions of the most hidden spiritual nature through the analysis of the spoken word. Should we ever in this wise *fully* learn what the essence of language is, we shall fully learn what thought is, the representative of the soul. Knowing the soul's representative is synonymous with knowing the soul itself; for our thought is our soul. as our soul is our thought.

THOUGHT AND LANGUAGE.

Speech is the representative of our thoughts incorporated in vocal sounds. Vocal sounds are spiritual elements, as much so as oxygen and hydrogen are material elements. These elements are representative of both the spirit and the body of language, or the positive and negative factors thereof, in conformity with whether they are vowels or consonants. Vocal sounds by themselves have no meaning. It is only when placed together in a given order, thus forming a word, and when uttered in a special manner, that they represent ideas. A vowel sound, all by itself, when uttered in a given manner, may sometimes represent an idea; consonants never represent an idea. Both vowels and consonants are uttered in many different ways, according to the word in which they are embodied and the meaning such word represents. The shadings of vowel sounds are as endless as the ideas they help forming. The shadings of consonants are determined by those of the vowels in conjunction with which they assist in forming syllables; consonant sounds always assuming the shade of the vowel sound which carries them.

I am dealing with language, the representative of our thoughts; while philologists deal with roots, and physiologists and vocal teachers, as a rule, with vowel

sounds only. It must always be borne in mind that in song it is an *idea* which is to be interpreted and uttered, not mere sounds. While it is important that we should comprehend what constitutes the machinery from which sounds are uttered, and also the manner in which this machinery is set in motion, it is more important to comprehend that both these factors only serve to assist thought in being converted into the sounds of speech as embodied in spoken words. It is the essence of the word, therefore, in the first instance, which we must attempt to comprehend. After the word comes the sentence; the word being influenced by the place it occupies in the sentence.

To contemplate the material instrument of the voice only, even if it were known in all its various phases, is about as sensible as it would be to classify a flower in accordance with Linné's system for the purpose of arriving at the manner in which its odor is produced.

Man's greatest prerogative is his ability to think and to give expression to his thought through language. It has always been one of man's most ardent desires to penetrate into the manner and mode of his thought, which is representative of his spirit. While we are the spirit, spirituality baffles our every attempt at becoming acquainted with its (the spirit's) own nature. While it is given to the spirit to recognize things, it cannot know itself.

Every endeavor by the greatest minds in this direction has been fruitless of satisfactory results. Now, I, a person not gifted beyond the ordinary, claim to have succeeded beyond any previous attempt at penetrating into matters heretofore supposed to be impenetrable.

By what means has this been accomplished? I am desirous of making this clear, not only for the comprehension and satisfaction of other persons, but also for that of my own. Science in its examinations starts from the body, whose inner being is foreign to us and which is known to us only in its appearance; which does not admit of a uniform scientific comprehension and offers us only rigid conditions. I start from the spirit, the domain of thought, which is free and elastic, and the spoken word, which is subject to our will and regarding which we are in possession of thousands of positive facts.

Every philosophical system ever elaborated has been worked out by thought pure and simple. It was the spiritual attempting to comprehend the spirit, or the spirit attempting to comprehend the spiritual. Now, we are not spirits pure and simple; we are matter as well. Spirit inwoven in matter; matter interwoven by spirit.

Hence the failure of philosophy at attaining definite results in matters whose inmost nature is hidden from us by the fact that all our faculties are correlated, that is, dually related, the spiritual to the material, the material to the spiritual. I have succeeded at attaining an insight into this relationship through an insight into the relationship existing between thought and language, a correlation covering the entire range of our spiritual life.

Thought, being spiritual, escapes the scrutiny of the spirit; thought cannot be dissected, so to say, by

thought; it cannot be analyzed as to its origin and development in a spiritual manner. It is beyond our reach. But language is not. It being both physical and spiritual, we have a hold on it that we have not upon thought pure and simple; and here is our opportunity.

This opportunity, if properly used, will change our entire mode of viewing things in relation to our spiritual nature. It will lead us to the very fountain-head of knowledge, where spiritual and material factors meet and unite. This knowledge, after being properly developed, will enable us to gain control over the exercise of our faculties.

Process upon process unrolls itself before our eyes, showing the intimate relationship existing between matter and mind in the exercise of our faculties of thinking, seeing, hearing, speaking, of motion, locomotion, etc.

These are matters of the utmost importance, and I must endeavor to make the reader see them from the same standpoint that I see them. The abstract cannot comprehend the abstract, nor the concrete the concrete. I have ascertained through the physiological study of language that when I see a material thing before me, as this desk at which I am writing, it takes a spiritual factor within me to comprehend its material nature; but when I think of the beauty of the desk (it being inlaid), the factor of beauty being of a spiritual nature, it takes a material factor within me to form an estimate of its beauty. My spiritual nature alone could not comprehend the material nature of the desk, nor could my material nature by itself form

an estimate of its beauty or spirituality. Matter and mind correlatively, however, can understand, and in so doing become conscious of the facts involved in the case.

There are other features, however, connected with the desk neither purely material nor purely spiritual, as the form which has been given to the wood it is made of, and by which it has been constituted what it is, a desk. Then there is the use it is put to and for which it was intended. These features are spiritual-material or material-spiritual in conformity with the fact whether the spiritual or the material in the idea predominates.

Hence the only manner in which we can penetrate into true and actual conditions is from the standpoint of our dual nature, which combines by fusion spirituality with materiality.

While philosophy uses pure thought for its investigations, physiology uses thought of a concrete, appreciable or perceptible nature. It studies phenomena from a visible and tangible point of view. Hence its failure likewise to attain satisfactory results. Psychology, on the other hand, investigating for the most part abnormal cases only, has no opportunity of arriving at results of the normal.

In language expressive of our thoughts every spiritual element we possess comes to the front, no matter how hidden and involved it may appear to be. If we are capable of giving expression to our most secret thought, as we aver, the language in which such thought is clad is the revelation of the very mystery of the soul, and will, if properly understood, lead to

the recognition of the *cause* of the thought and the "modus operandi" in which the thought emanates from factors unknown and communicates with factors of speech also unknown and supposed to be unknowable. Language is the only factor known to us which represents our dual nature in a comprehensive and comprehensible form. It is both spiritual and material. The study of the essence of language consequently can be made a basis for the study of life and the spirit. It appears to me to be, as a matter of fact, the *only* basis for a profitable study thereof.

The inmost motive powers of our soul-life are imbedded in the language we speak. Language reveals what is hidden if we can truly comprehend and expound it. I do not mean language in a philological sense, nor any special language, but language as such, our mother tongue, in its intonation and the life and soul which pervade it. Where language fails to fully express our thoughts and feelings, in place of words we often use gestures and motions, accompanied by ejaculations and inflections of the voice; groans, sobs, and stifled utterances of words, expressive of joy, love, surprise, pity, remorse, anguish, anger, hate, etc. The child hears these sounds from his mother's lips and sees them in her eyes. For the eye reflects the soul and the manifestations of the soul, which the infant interprets far more sensitively and correctly than the adult. In this manner we imbibe our mother tongue, and in this manner it becomes part of ourselves. The voice always accompanies these manifestations of our feelings in some way or another. Thus language extends beyond words. Where words fail

us the suppressed language of our feelings begins. These unspoken words cover a great range and in their mode of expression differ with every nationality.

To be able to comprehend their inner nature, the manner in which they are produced, and the parts whence they emanate, together with the spoken word, leads us into channels opening up vistas which give us glimpses at the most secret, veiled and mysterious proceedings of our nature, at what is immanent within us and transcendent.

The most direct route to arrive at these facts is the examination into a foreign language, and a comparative study thereof, from the standpoint of our mother tongue; from the standpoint of the language in which we are reared, which has been imbibed with our mother's milk, her heart and soul, as expressed in her words and in that mysterious language of the inflections of her voice, not always clad in words; from the standpoint in which her soul enters our soul, her heart our heart, her feelings our feelings, and from which language is something far higher, holier and deeper than its mere exterior, its clothing in words.

What is thus imbibed in early childhood remains throughout life and is strengthened and deepened by the teachings of religion, the knowledge acquired in school, the intimate acquaintance with the masterminds of one's own country, its poets and writers. It is the language in which we live, love, dream, pray, and, maybe, despair, curse and hate; in which we soar and deplore; in which all our ambitions centre and all our aspirations. The language in which we received

the first hard lesson in life, destructive of early ideals; yet strengthening for the stern battle before us. That language is deeply imbedded in our nature and can never be wholly replaced by another.

Do you think all that can be changed by just learning the words of another language? That we can thus enter into the life of another nationality and its spirit? Do you think we can ever acquire the spirit of a foreign language as expressed in its metre, rhythm, accent, intonation and emphasis? Possibly we may, but it is not easy, for with every one of these factors we must change a vital factor of our own; for every one of them we must breathe differently than for our own.

Hence the weariness of the life of a foreigner in a foreign land. It is not that he is not understood in what he wants to say, in an exterior manner; that he will soon learn. But the depth of feeling, the sympathetic chord is wanting—he neither understands nor is understood. Hence he is stranded in his feelings, in the sacredness of his heart and soul-life.

A man once came to me with a request. His appearance was unprepossessing. His speech was uncouth, rough, unsympathetic. He spoke to me in English and I answered in that tongue. But when I spoke to him in German, all at once his whole aspect changed, and there came from him tones and accents so tender and clad in such refined language (he had seen better days) that I was touched and at once granted what he had asked for. A similar case happened with a man in a dye-house. He had been working all day over the vats. His hands and face were sooty, smeared; but when he changed his shirt there

appeared a body white and resplendent, and after washing his hands and face he became a different being. My German was like this dyer. He had but to change his borrowed garb, which so ill-fitted him, and in his native language he appeared white and resplendent.

Now we come to another country, as I have, f. i., in my twentieth year. All the surroundings are different. The language in which we have been reared, and which has become a part of our nature, of our own being, comes in contact, yea, in conflict with another tongue, the language of another country, the mode of existence of another people. We learn the words of that other language, but we do not learn their intonation, their pulsating, silent inner life, which is of a different order from that inherent in our language. We are foreigners and remain so; remain so, unless we learn by such studies as I have made, to grasp the spirit of the language of our adopted country, and through this spirit learn to properly speak this language, and thus also learn to comprehend and appreciate the spirit and the character of the people among whom we have come to live.

EVOLUTION.

In making a comparative study as between the English and German languages I have come upon some fundamental truths regarding the character of the peoples speaking these respective languages.

Now, in view of all I have previously said regard-

ing the origin of nations, what is the significance of the current expression "Anglo-Saxon"? I have used it simply for the want of one more accurate. The word "Englishman" by itself would not do, for the Americans, Canadians, Australians, etc., are not Englishmen in the ordinary sense of the term, although they speak the English language. In my book "The Basic Law of Vocal Utterance" I used the term "Anglican" instead of Anglo-Saxon, in order to avoid the more extensive expression, "English-speaking races," which alone would be strictly accurate, but I have abandoned it again because reformation of language is no part of my task, and I much prefer leaving that to others. There is something of anomaly in the expression when one considers that by far the greater number of the so-called Anglo-Saxons now living are descendants of other races than the Angles and the Saxons. The term appears particularly inaccurate when it is used, as it continually is here and in England, to describe traits of character which are peculiar to the English, as originating with the Anglo-Saxons, or having been by direct descent inherited from them. In this sense there are to-day not many Anglo-Saxons, but a whole race of people who are subject to the laws of the English language, the language which has arisen under the influence of the "Sea"; a language that stamps with its impress the physical as well as the psychic character of every child of foreign parents born under its sway. No matter from what race they spring-they become Anglo-Saxons.

That a similar evolution is taking place in all other

countries with the children of foreign immigrants goes without saying. In the meantime, the question whether such an evolution is an advance, except where it affects a *lower* race for its elevation, must remain undecided. Whole races are civilized by means of a "higher" language. The "Irish question," as far as that term signifies the animosity of the Emerald Isle against England, will be settled as soon as the lower classes of the Irish population exchange their peculiar brogue for a correctly intoned and pronounced English, and so become, to all intents and purposes, *English* themselves. Everything else would then settle itself.

The Austrian question is, as is generally recognized, in the main a question of language, for the various traits of character of the different Austrian races are determined in large measure by the language spoken. The sympathies and antipathies of the races towards one another rest almost entirely upon grounds that can be traced back to a linguistic origin.

The "Jewish question," too, would be solved if the Jews would take the trouble to speak the language of the people among whom they live exactly as their neighbors; that is to say, if they would abandon their dialect, traces of which are noticeable in the speech of even many of the educated among them. There are numerous examples, at least in America, of Jews who have nothing Jewish about them in appearance or manner, and in such cases it will always be found that their speech, in its idiomatic expression, is thoroughly genuine. The religious side of the question is of little

consequence as against the overbalancing importance of the racial.

It is an anomaly, when speaking in this country or England of a significant or noble course of action, to boast that it is characteristically Anglo-Saxon. So, when Germans speak of "German" intellect and temperament, "German" loyalty and spiritual depth, it is again something which lies secreted in the German language which "makes their poetry, forms their thought," to which is to be ascribed the origin of these characteristics and which brings them to light.

Another expression, and one which is used continually here in a similar sense, is a "Christian" point of view, virtue, etc. This is an anomaly in our progressive era which is, in fact, "un-Christian," having advanced beyond dogmatic Christianity, and from the higher standpoint of the purely moral sense, concludes entire humanity with a like love; an anomaly in an age which has gotten beyond the superstition which is ever ready to consign to "eternal punishment" anybody who differs in thought or feeling. And this superstition, together with a multitude of others, which for many are already a breath from the past, but which still ring out everywhere from brazen tongues into the free morning air of the twentieth century, will, in this century, for educated people, become a point of view completely antiquated. Among the Anglo-Saxons, however, for physiological reasons, which I will endeavor further to explain, in all probability it will linger for a while longer.

This century, however, will also get beyond the scientific materialism which denies the existence of the

spirit, that watches over us poor humans, supports us and leads us to ever higher goals. Men will cease to busy themselves with mere matter and will seek the highest end of science in the search for the true nature of the animating spirit. The key to that will be found in the recognition of the duality of human nature, and through the truth thus won correct conclusions will be arrived at regarding the highest insight, which will in time become the common property of entire humanity.

The work of Darwin and his school, important though it is, rests more on the observation of phenomena than on penetration to the heart of creative nature. The whole movement must therefore be looked upon more as a sign-post showing the way out of a narrow chasm in which we found ourselves without means of egress, up to light and freedom. But light and freedom themselves it is not. They must be uncovered by a totally different method. The Darwinian movement is, so to speak, of passive nature, like our whole being, the nature of the creature that cannot help being worked upon. What is lacking, and which is indeed most needed, is the recognition of the manner and means by which human nature is worked upon, so that in passing from the passive to the active condition we can aid nature, and thus attain the ability to remove the obstacles from her way and make it easy for her to exert the proper influence upon us. To accomplish this the recognition of eternal laws of which we are subject ought to be the highest aim of medicine, hygiene, music, etc., quite apart from what psychology and philosophy attempt.

That as yet we have not known such laws appears at once when we consider merely a single instance, namely, that every explanation of the process of breathing, the first essential of life, which has hitherto been given, is in the highest degree primitive, unscientific and one-sided.

I believe that I may say of right that my studies indicate the first step towards the proper recognition of this important and many-sided conception. In this alone there is more for the correct recognition of our being and the demands of our welfare than the entire scope of observation of Darwin would supply.

The observation of the true process of breathing brought me to a position never before attained, the observation and perception of purely spiritual proc-These studies do not confine themselves to abnormal or supernormal spiritual phenomena, to which investigators of the present day seem wholly given over, and to all appearances without result, but they are occupied with entirely normal conditions, and in these is the greater mystery. For the abnormal the normal supplies a norm. The normal itself offers us no point of comparison, no point of vantage, and for that reason it is hard to get at. Nevertheless in the differences which exist between races and their languages I found the variation from a given norm, which is determinative of our own language; a field that has yet lain fallow, and on it are based most of my observations. In these studies I have not to do merely with the strongholds of facts, but also with what lies behind these facts, or phenomena, and this leads me to the recognition of eternally potent laws. The evolution which makes an Englishman out of a German is one that we can observe step by step from beginning to end, and whose hidden grounds we can see for ourselves with reasonable clearness, if we give it sufficient intellect, time and attention. Yes, more. When such an evolution is taking place within ourselves (for only in this way are we in a proper position for observation) we are then not merely passive subjects of this evolution, but are also its objective author, director and guide, at once creature and creator. Such a method leads us directly to the spring of life. By such and similar methods alone can we press into the very essence of our being and exchange blundering efforts on many fields of endeavor for scientific insight and the knowledge of immutable laws.



THE SPIRITUAL IN LANGUAGE PREVAILS OVER THE MATERIAL.

THE fundamental principle of our spiritual life consists in the fact that the higher of its dual factors is either imbedded in us while the lower is coming to us, or that the lower is imbedded within us while the higher is coming to us. This principle finds its best and truest exponent in language. The main characteristic quality of the German language consists in the fact that its spiritual elements are outgoing, while its material elements are ingoing; that of the English language in the fact that its spiritual elements are ingoing, while its material elements are outgoing. fundamental principle with German nature being spiritual or ideal, it requires the material to come to it and complement it; the fundamental principle with Anglo-Saxon nature being material, it requires the spiritual to come to it and complement it. This fact, like every other of my statements, can be tested by practical means: every word representing a material idea having its seat in the abdomen and proceeding from the œsophagus, or the posterior part of the oral cavity; every one representing an immaterial idea having its seat in the thorax and proceeding from the trachea, or anterior part of the oral cavity, while material-immaterial ideas, or words representative thereof, proceed in part from the œsophagus, and in part from the trachea.

The immaterial in language always largely prevails over the material. The higher in the scale of humanity, the greater is this preponderance. Every material object has many immaterial or spiritual concomitants; they may be descriptive of size, weight, shape, temperature, color, or such qualities as age, beauty, health, virtues, vices, temperament, etc.

Spiritual expressions, on the other hand, are never accompanied by material definitions. A brick, which is about as material a thing as might be named, every immaterial attribute having been expelled from it during the process of baking, may yet be surrounded by immaterial elements. It may be hard or soft, dull or lustrous, loose or compact, wet or dry, hot or cold; it may be oblong, square, etc.; it may be made of sand and water, or many other materials; it may be used for a hut or a palace, a theatre, or a church; it may be imbedded in a pavement, or used as a missile; and it may possess qualities of many other kinds. This shows the great preponderance of spiritual or immaterial expressions over the one expression which stands for the thing itself. As we ascend the scale these qualities and surroundings multiply manifold.

Immaterial or abstract ideas, on the other hand, stand out clear and distinct, and require no definition. It is so when we speak of justice, honor, mercy, truth, falsehood, meanness, hypocrisy, etc. While there may be grades of a higher or a lower order in which these

concepts are viewed, according to circumstances and by different classes of men, the thing itself is well defined and unquestioned.

I have shown that the word "brick," as such, does not properly define anything, but that it must be complemented by spiritual adjuncts to evoke in us the idea of what it really stands for; though there may be a general idea prevalent in our minds of what is usually meant by it. When we substitute for the word "brick" that of "house," the definitions become vastly more complicated; yet apparently the idea of what the word stands for can be simply defined as a habitation for man to live in—a dwelling.

Now, what follows? That the material, though apparently something positive and real, as a matter of fact, is something very indefinite and unreal; while the immaterial, which, apparently, is something indefinite and ill-defined, in reality is very definite and real. It also follows that while the apparently real, the material, can be reduced and often is reduced to its elements, and is thus destroyed as an entity, the apparently unreal, the immaterial, or spiritual, always endures and is never destroyed. Hence the apparently real is the actually unreal, while the apparently unreal is the actually real. The inference to be drawn from this is that the spiritual in man, the real, survives the material, the unreal—as the fittest.

Considering, then, that the abstract, immaterial or spiritual in language representing our spiritual existence, is the vastly preponderating factor, does it not seem strange that scientists in their investigations into life should start from and adhere to the material part of our being and leave its spiritual concomitant almost unnoticed? I have called attention to this fact in connection with the investigations made into the nature of the voice, and also with such as the school whose rallying word is "Monism" has made under the leadership of Prof. Haeckel.

We must investigate what is fundamental and enduring in our composition—the ideal and spiritual, and not what is temporal and evanescent—the concrete and material. We must reach the material by way of the spiritual, and not vice versa. The spiritual illumines our *entire* being, the material confines itself to parts. Hence the unsatisfactory nature, as a rule, of physiological examinations, which are almost exclusively confined to ex parte physical phenomena.

INFLUX AND EFFLUX.

The immaterial is the soul of language, gives language its character. The immaterial in the German language, its soul, being imbedded in the person, its main characteristic trait is that it is outgoing; the immaterial in the English language, its soul, coming to the person, its main characteristic trait is that it is ingoing. I recognized this fact in a general way many years ago, without being able to account for it. I said in "The Basic Law, etc.," published in 1894, page 41: "Germans exhale their speech, Anglicans inhale theirs. German speech comes direct from the throat, while English speech pursues an indirect course. After be-

ing inhaled over the surface of the tongue it is exhaled from beneath the same. With German speech the precisely opposite course takes place. The air is inhaled from beneath the slightly raised tongue; it is exhaled from over the tongue."

This assertion, though ridiculed when it was first made, has been confirmed over and over again during all the years I have devoted to these studies. After the discovery of the dual nature of the voice, this observation, in fact, was the one giving direction of the highest order to this entire knowledge.

Owing to the great preponderance of the spiritual element in language, teachers of the voice inadverently deal with this factor alone, and devote no attention to its material elements. Close observation of the production of words, however, shows that whatever course the immaterial parts of speech take, the material always take the opposite course. While the former are exhaled by Germans, the latter are inhaled by them; while the former are inhaled by Anglo-Saxons, the latter are exhaled by them. This observation is of the highest importance in the study of the art of singing, elocution, etc.

An Anglican awaits the immaterial to come to him, hence the slowness of his utterance and the repose of his being. The German freely utters the immaterial that is in him, hence the rapidity of his utterance and the vivacity of his being. The former is slow in his speech, as the spiritual must come to him before he can utter it; the latter speaks as fast as he thinks.

While Anglicans are slow in their utterance of immaterial things, they are quick in that of material things; while Germans are quick in their utterance of immaterial things, they are slow in that of material things.

In saying "this is a beautiful house" an Anglican will utter the word "beautiful" slowly, the word "house" rapidly; a German, in saying "Das ist ein schoenes Haus," will utter the word "schoenes" rapidly, that of "Haus" slowly.

In words in which material and immaterial factors are blended, as in "man," an Anglican, with whom the material predominates, utters the first half of the word rapidly, the division of the word being in the middle of its vowel sound, "a"; its last part slowly, but with stress or emphasis. Hence his utterance is from a fall to a rise, or jambic. A German, with whom the spiritual predominates, utters the first part of the word "Mann" slowly, but with stress or emphasis, its last part rapidly. Hence his utterance is from a rise to a fall, or trochaic; the division, as stated, being always in the middle of the vowel sound accompanying each syllable.

The "intonation" is also confirmatory of these observations. Anglo-Saxons, who speak from abdomen to thorax (which is the reason so many teachers among them aver that the abdomen is the seat of the voice), utter the last part of the word "man" with emphasis; the spiritual being the most essential and carrying with it the intonation. They inspire into the abdomen and expire from the thorax.

Germans, who speak from thorax to abdomen, utter the first part of the syllable "Mann" with emphasis, coming as it does from the thorax and carrying the

intonation. They inspire into the thorax and expire from the abdomen.

These matters can be tested by experiment. When you place your hand on the top of your head while speaking the English word "man" you will be able to utter the first part of the syllable, but not the last; while under the same circumstances uttering the German word "Mann," you will be able to utter its last, but not its first part; the abdomen and every other part located beneath the diaphragm always representing the material, the thorax and every other part located above the diaphragm, the immaterial part of words. The result will be the reverse when the pressure is applied to the opposite part of the body, the perinæum.

A purely material word, like stone, iron, etc., cannot be uttered at all while obstructing the perinæum or making the same rigid; while a purely spiritual word, like honor, beauty, mind, etc., cannot be uttered when the top of the cranium is thus obstructed or made rigid.

This being a study of the most extensive ramifications, every *class* of words presenting different spiritual and material aspects, I cannot enter into it more fully at the present time, but trust I may be able to again revert to it in the future.

Thought and speech complement each other. What we think materially is sustained immaterially, what we think immaterially is sustained materially. That is to say, when the impression is made in a material manner, or from a material object, the expression comes from the abdomen, but is sustained by the thorax; when the impression is made in an imma-

terial manner, or from an immaterial object, the expression comes from the thorax, but is sustained by the abdomen.

Every thought or impression being made by either a material agency complemented by an immaterial or an immaterial complemented by a material; thus every vocal expression is a representative of our dual nature.

With thought not vocally uttered, a precisely similar order prevails. We are thus moved by eternal laws which influence us in all our acts, thoughts and utterances. These laws, however, are so pliable (similar to those which govern electricity) that we change them while they influence us, and we influence them while they change us. We can raise ourselves upon their wings to the highest; we can descend upon their downward course to the lowest. They can be made use of both beneficently and perniciously.

All of the preceding conforms with the general principles laid down by Kant regarding a priori and a posteriori knowledge.

A priori knowledge may be either spiritually imbedded in us or coming to us in conformity with a person's nationality. It is imbedded in the German; it comes to the Anglo-Saxon. Hence the abstract, transcendental reasoning of the German, the concrete of the Anglo-Saxon mind.

If the facts as stated did not really obtain we could not have a language in which we could express our thoughts. Memory represents the concentrated function of a priori and a posteriori knowledge, of that which is imbedded in us spiritually and comes to us by experience, or vice versa. If memory were not thus

constituted it could never grasp and offer to our use at a moment's notice all the problems of a highly advanced and complicated language.

That the concrete, the real, which we acquire through our senses, should be the first motive with the Anglo-Saxon mind, is shown by every characteristic trait of Anglo-Saxon nations pointing to this fact. That, on the other hand, the abstract and ideal should be the first motive power with the German mind is also proven by the general characteristic qualities of Germanic nations.

IS THERE LOGICALLY SUCH A THING AS A MATERIAL OBJECT?

When we come to closely look into the question mooted in the preceding chapters, we arrive at the extraordinary proposition that matter has no proper standing of its own, but that it owes its existence to the influence of spiritual qualities closely interwoven with and allied to it. It consequently owes what it appears to be, the phenomenon, not so much to inherent qualifications of a material, as to qualifications of a spiritual nature. Hence the material has no existence except by grace of the spiritual.

In describing a material thing we do so by its qualities, for in that way alone can we arrive at a proper understanding of what a person by his description wants to convey to our mind. Qualities, however, are not so much of a material as of a spiritual nature.

The spiritual is constant and eternal. It may apply to a thousand forms or phenomena vastly differing from one another in their appearance, time, location and circumstance, yet the qualifying description thereof, in principle, always remains the same. Beauty is always beautiful, ugliness ugly. They may differ in proportion, and vary in impressiveness in connection with the individuality of the beholder, but in principle they are always the same. The material things these spiritual qualities apply to, however, never are just the same, one leaf of one and the same tree not being just the same as any other; one hair of a man's head never being precisely the same as another.

Take away the qualities, and what remains? A nondescript, an impossible thing. The spiritual describes and confines a thing as to its size, or the space it displaces; its color and shade, the fineness or coarseness of its fibres, texture or grain; its smoothness or roughness; the porousness or compactness of its compenent materials; the purity or impurity of its surface; the brightness or dulness of its appearance; the artistic or inartistic mode of its construction, and a thousand other qualifications in phenomena as they present themselves to our view. Take this glass which is before me: It rests on a table; it is hollow, fragile, transparent, round, and smooth on its inner side, cut on its outer; its rim is polished; its size is big. Take away these qualities and what remains?

When it comes to living things the qualifications vastly increase. In these we have, besides the qualifications just described and many more of a similar nature, qualifications of the mind of a purely spiritual

nature, as thought; not immediately connected with matter or inherent therein, but nevertheless confined to phenomena or entities gifted with life. These qualifications, more especially abstract thought, are of an order of which we become conscious not through the senses, but in a purely immaterial or spiritual way. The vital and spiritual properties which characterize living entities, and among them more especially man, are of so multiform a nature that it is but requisite to mention them to at once make us conscious of the fact that to deprive them thereof is equal to robbing them of everything that is characteristic of their nature.

Take away from a thing its size, its color and shade, its fineness or coarseness, its smoothness or roughness, its transparency or opaqueness, its porousness or compactness, its elasticity or brittleness, its purity or impurity, its brightness or dulness, its artistic or inartistic qualifications, its beauty or ugliness, and a thousand other things of an analogous nature, and what remains? In other words, deprive the material of its immaterial or spiritual qualifications, for all these are spiritual, as we do not become conscious of them except by their effect; I say, take away all these, and will there remain anything by which we can recognize them? Does there remain anything but a conglomerate mass of material elements?

I even doubt the possibility of the existence of material elements, unless surrounded and sustained by immaterial qualifications. Material elements are not entities of an indissoluble and constant nature; on the contrary, they are composed of atoms, and these atoms are again endlessly divisible. They are of the

most varied nature, and in many instances are convertible from a gaseous to a solid condition and vice versa. They occupy space and require time for their development. Space and time, however, are immaterial; hence material elements are subject to immaterial or spiritual influences and have no positive standing of their own; the very fact of their passing under certain conditions from one state into another also being of a semi-spiritual nature. While material phenomena are both in time and space, purely spiritual phenomena, as abstract thought are apparently, neither in time nor space.

It does not seem possible for the phenomenon "man" to fully comprehend the essence of the phenomena which surround him and of which he becomes conscious. Should man, however, ever succeed in comprehending himself, "the proper study of mankind being man," this most complex of all phenomena, we may take it for granted that the knowledge thereby gained would enable him to comprehend all other phenomena.

Not being able to comprehend his own mystery, it would seem to be a fallacious undertaking on his part to attempt to comprehend the mystery beyond his mystery, so glibly talked about by the unwise as "the knowledge of God." Why go beyond ourselves, therefore, in our attempt at comprehending? Are not we mysterious enough?

I am not unaware of the fact, however, that to some of my statements there may be serious objection; some of the qualifications which I have designated as immaterial or spiritual being indissolubly connected

with material phenomena. It will be said that the shape of a thing, it being straight, or crooked or bent; its lustre or dulness; its smoothness or roughness; its porousness or compactness, etc., are qualities which cannot be thought of by themselves, but only in connection with material things to which they apply. Granted this to be true, there is then an association of the immaterial with the material in these matters. The idea represented by the word "shape" cannot be said to be material; on the other hand it is not immaterial, as it applies only to material things; yet take away a thing's shape, what remains?

On the other hand, while material phenomena constantly differ, and in their precise form are never repeated, the "idea" represented by their qualifications always remains the same, straightness always being straight, crookedness crooked, brightness bright, dulness dull, etc., and in this sense they certainly partake of a spiritual nature.

Yet I have previously spoken of the "constancy" of nature in its material phenomena, taking the tongue as an example; not only man's tongue, but the tongue of every other living entity partaking of the same qualifications. These qualities, however, are of a general and not a particular nature, every tongue as a matter of fact in some respects differing from every other tongue. Now, what are these differences to be attributed to? To spiritual influences, which, though of the same order always in a general sense, influence individual entities differently in conformity with their individual character. Postulating, then, that "living entities" owe their existence to spiritual influences to

a far higher degree than to material ingredients composing their bodies, does not the idea commend itself to our understanding, that the spirit, which must have been first in existence, formed unto itself a body to be subservient to it and conform to the status of its own being, its own requirements and possibilities? That the body is but the executive branch of the lawmaking power of the spirit? That our spirit requires a body to do its bidding? And that when that duty has been performed it is dismissed?

Does it not further seem plain that the spirit thus uses the body for the purpose of giving expression to its wants and desires in that physio-psychical manner of thought utterance called speech, song, etc.? For, while the body is bound, the spirit is free and unfettered and uses its "instrument" for the expression of its wants in the same manner as an artist uses a musical instrument.

This mode of reasoning may justly be called "spiritualistic monism"; yet we cannot deny the existence of the body and the correlative influence exercised by body upon mind and mind upon body. Hence the former, though theoretically true, must be abandoned in practice. For the purposes of practical knowledge and experience and the benefit to be derived from their study, which may be called "applied metaphysics," we must sink theory into practice and deal with a dual and not a single form of existence, in which the spiritual, however, is supreme and exercises a preponderating influence over the apparently material.

L'ANGUAGE A LIVING SPIRITUAL ORGANISM.

While "material" words represent lifeless things of which we become conscious through our senses, "immaterial" words represent ideas of an abstract order. The rules just set forth hold good for all languages. Not so in regard to words of a material-immaterial order, or words representing living things, which present features of a wide range of observation. I have heretofore spoken of the anode and cathode of vocal sounds, the former representing material, the latter immaterial issues.1 The correctness of the assertions then made can be positively determined in connection with the utterance of words representing living things. A living thing is of dual nature, it is both material and spiritual. Now, living things not only comprise plants and animals of every description, and, of course, man, but many other things, as, f. i., vocal sounds and words which, as I have shown, participate in the principles of life. Language, composed as it is of vocal sounds and words, and being an outcome of man's body and soul, is a living organism, being itself composed of living elements which are subject to the same general laws as other living things. If this were not the case, language, instead of being a living organism, as I aver, capable of adapting itself to and assuming an endless variety of spiritual-material forms, would be inert and incapable of representing, as it does, all things of which we become cognizant.

¹ See "Duality of Voice," page 103, etc.

I say this in direct contradistinction to the assertions of philologists, and beg to quote from Prof. Max Mueller's "Science of Thought," page 184, the following as to their standpoint:

"Although every root may be reduced to at least one consonant and one vowel, these consonants and vowels are simply the materials but not the elements of language; they have, in fact, no real independent existence; they are nothing but the inventions of grammarians, and their combination would only give rise to meaningless sounds, never to significant roots. We know that roots are simple, that they cannot and should not be decomposed, and that consonants and vowels are lifeless and meaningless materials, etc."

This is the soulless standpoint which the science and philosophy of the present age occupies regarding things that cannot be perceived through the senses. My work has been a research beyond roots. I have entered upon the investigation of the being of these "lifeless and meaningless materials," consonants and vowels, forming the "roots" of the philologists, which the latter regard as the units upon which a correct system of the essence of language alone can be built. My merit, if I have any, is this going beyond the boundary of science; beyond the point where science has come to an insurmountable barrier.

Language is not only the living representative of all things of which we become conscious, but it appears to me that its words in their origin and mode of coming into existence, pass through phases similar to those which the things they represent pass through. As man in his embryonic state, as scientists aver,

traverses the entire range of phases (beginning with the moneron) that through endless ages finally lead up to man, so it may not be impossible that words, which represent all things, may have originally come into being in a somewhat similar manner.

At any rate, I can to some extent explain how words representing *living* things are created, and from that standpoint this wider range of thought may be deduced.

Postulating that the soul has been in existence before its body, and that man's cell from its first incipience is, and always has been, of dual nature, and that words, or rather groups of words, representing groups of ideas, are inherent in special parts of man's body, truths of which in my mind there cannot be any doubt; it appears to me that the physical development of the cell, from its unicellular beginning as a living entity, in its gradual advancement and evolution up to man, has been accompanied by a parallel development of vital and spiritual forces and the expression thereof through a language.

This, of course, is not assuming that there has been a conscious language with any individual living being before the estate of man was reached, but that the bodily development of each stage of progression was accompanied by a similar development of the spirit, which found expression in what might be called a language, as adapted to the condition of every such stage. Even when such language was not, and is not now expressed by sounds, as in the case of fishes, it is nevertheless apt to exist and to manifest itself in some other way. Language, which represents our spir-

itual existence, is a phenomenon at least quite as complicated and wonderful in its construction as that of our body. If it required a course of gradual development to produce the latter, does it not appear likely that it should have taken an equal length of time to have produced the former?

This assumption is also subject to the thought previously expressed, that for a long period there was no language whose integral parts consisted of words, even with man, but that during this time his entire expression consisted in mere sounds subject to the idiomatic impression which had been made upon him by the surrounding elements of nature, and which forever thereafter pervaded his language as its soul. Hence words, the body of language, only came into use a long time after an idiomatic expression had already pervaded man's being. In thus pervading the being of a group of people such group was constituted a nation possessing an idiomatic expression and a language of its own.

Life being complicated, the production of a word representing a living thing is similarly complicated.

I have heretofore pointed out that Anglo-Saxons are rooted in the material and reach the spiritual by way of the material, while Germans are rooted in the spiritual and reach the material by way of the spiritual. This signifies that in the production of the German language a spiritual factor, as the preponderating, fuses with a material; while in the production of the English language a material factor, as the preponderating, fuses with a spiritual one. In thus fusing, the

same as with the fusion of a positive and negative electrical factor, the thought, or the spoken word, like a flash, make their appearance.

Now let us once more take as an example the word "man." When properly uttered it is pronounced mà-án. The first part of this syllable is its anode, the last part its cathode; the former representing material, the latter spiritual issues; the material first, the spiritual last.

With the German word "Mann," however, pronounced má-ànn, the cathode comes first, the anode last; the former representing spiritual, the latter material issues, the spiritual preceding the material; the spiritual in the word always being represented by the intonation.

Hence you can notice, while enunciating the English word "man," upon pressing the abdomen you will be unable to pronounce the first half of the syllable "ma" but you may pronounce its last half "-an"; when pressing the thorax you will be unable to utter the last half "-an," but you may utter the first half "ma-."

A German, on the other hand, with whom the first half originates in the thorax and the last half in the abdomen, upon pressing his abdomen will be unable to pronounce the last half "-ann," while he can pronounce the first half "ma-"; when pressing the thorax he will be unable to utter the first half "ma-," but he can utter the last half "-ann."

I have already spoken of these matters in connection with pressures produced on the scalp and the perinæum. I beg to reiterate, however, that I have

written upon these subjects at various periods during the last ten years, and cannot now condense these theses and systematize them without a very great loss of time. I therefore produce them as originally written, which I trust will not require any further apology.

Examples showing different phases of this cyclorama of the "living" world, as spiritually represented by words, could be cited endlessly, each shake of the box of the kaleidoscope in which such words are contained showing a different aspect, though the principle underlying all is of the same order. Volumes might be filled with them; but I must go on, for the present, though I expect to enter at greater detail upon these matters later on.

While thorax, abdomen and pelvis are the three spheres representing words whose respective meaning is of a spiritual, a material, and a material-spiritual order, these three orders are subdivided into classes, which are represented by organs or vessels located in these spheres.

There is nothing accidental or arbitrary in our mode of thinking or vocally uttering thought. Every utterance comes from a different sphere and a different receptacle in such sphere. It is a set of machinery of a very complex nature, but there is perfect order in its complexity.

The production of words may in a manner be exemplified by the preparation of a medicine in a drug store. The apothecary knows where to look for its various ingredients, according to classes and their various subdivisions, and deftly sends his fingers into

one after another and then binds them together by means of distilled water. Thus to construct a word or a sentence, we first gather the vowel sound belonging to the first syllable and group around it the consonants appertaining thereto. To this, if the word is composed of more than one syllable, we attach others in the same manner. Before thus composing a word, however, we get the idea it represents from its special receptacle, and in so doing infuse its "spirit" into it, which is represented by its intonation, and which is equal to our distilled water, as it is the agency which makes all the rest cohesive and joins them together into an entity. When our utterance is of an artistic order, rhythm, measure or time, and emphasis are additional factors which demand equal attention and consideration. All this is done instantaneously, apparently, yet there must be this measure of time in every instance, though unnoticed, except when the performance is of an artistic order.

The "intonation" equal to the meaning or spiritual nature of the word, in the first instance, is a product of the sphere, and in the second, of the hemisphere to which it belongs; in the third, of the vessel located in such hemisphere; and in the last, of that part of such vessel to which it belongs in conformity with its more particular meaning.

When speaking about these matters in a former publication I placed "accent" and "intonation" under the same heading. This should not have been done, especially in view of the fact that I had traced the accent or stress to the abdomen, where it undoubtedly belongs, while the "intonation," in a manner, is an

outcome of our entire being. To the four elements of speech which I then named, viz.: measure or time, rhythm, accent and emphasis, we must therefore add "intonation" as a fifth element.

The analytical chemist is constantly adding "new" elements to those heretofore recognized as such. Thus "new" elements have of late been added to the composition of the air. I also have added "new" elements to the air, but they are not those of the chemist; no tongue can taste them, no sight see them, no hand touch them, no scale weigh them. They are imponderable, spiritual.

These immaterial elements of the air form a combination with other immaterial elements, which have their seat in material parts of the body, and in so doing create dualities, which, when embodied into vocal sound, become fundamental parts of vocal utterance.

Groups of words, as stated, have their physio-psychical origin in various parts of the viscera; these parts are related to corresponding parts of the brain and come to the surface in corresponding parts of the oral cavity. While I have thus succeeded in tracing a number of groups of thought and of words of a material and a material-spiritual order with considerable accuracy to material sources in the abdomen and the pelvis, I have made but comparatively slight progress in tracing groups of words or thought of a purely spiritual or abstract nature to their material origin in special parts of the thorax. They are not so readily traceable, partly owing to the fact that the thorax is incased in an armor, so to say, while the abdomen is elastic and freely accessible; still, if I had sufficient

time at my disposal to devote to this task, I think I could also locate these with greater accuracy than I have thus far been able to do.

The knowledge of the exact location of words is imparted to me by my ability or respective inability to pronounce a word in its entire purity. I first endeavor to ascertain what group a word belongs to, then try and find its location. I find the latter by pressing the respective spot or by making it rigid; as long as I can utter the word, after producing a pressure or making such part rigid, I have not hit upon its location. As soon as I come near the location I find difficulty in uttering the word, and when I actually hit upon it my ability to utter the word absolutely ceases.

When I have finally located a word I cease pressing the part or making it rigid, and then, by centring my thought upon its location, I can utter it with a clearness and distinction far surpassing any ordinary effort.

The process of finding the location is not unlike the pastime sometimes indulged in in company, when one person is sent out of the room, and in his absence an object is hid in some place where he is to find it. While he is seeking for it, and as a guide to him, the sounds of the piano are played softest when he is a distance away from it, and louder when he approaches the spot. The sounds of the piano in this instance being the greater or less ability to utter the word distinctly.

I have thus far positively traced to the liver words belonging to the house and household, together with everything that makes up the contents of a domicile. Everything constituting a house proper finds its expression in the liver. This, however, is the case only when we think of objects as being *in* the house and belonging to it.

Everything which constitutes a person's wearing apparel has its seat in the pancreas. Here again we must think of such article always as being upon a person or intended to be worn by him. The articles themselves apart from the person have not the same origin. In these two groups of ideas consequently are comprised all things that belong to man's habitation and dress.

I cannot utter words belonging to these groups with the same perfection as when I think of them as emanating from these respective organs.

I have not yet devoted sufficient time to other classes of words, which have their origin in the abdomen, as to be able to make *positive* statements in relation thereto, though I have come very near being able to do so in several instances.

The pelvis is the most important of the three spheres for the production of vocal utterance. Vocal teachers constantly speak of "deep" breathing, and correctly so, as being of great importance in voice production. This deep breathing does not pertain to the thorax, as is generally assumed, but as a matter of fact relates to breathing into and out of the abdomen and the pelvis, which is constantly, though unconsciously, carried on by every living person and every other mammal. I presume all the vertebrates partake in this process. The pelvis being the seat of the reproductive organs, and hence of life, is also the main seat in a physio-psychical sense of the force creative of that

symbolic representation of the phenomena of human life denominated vocal utterance.

Just how we breathe into and out of the pelvis I expect to satisfactorily explain in a future volume.

I have shown that every part of man's body is divine, and have thus raised the standard of our human existence to a higher level. To do this I was obliged, though reluctantly, to enter upon phases of our being usually withheld from the public gaze. So far but little has been said upon these subjects, but I shall have to enter upon them more fully hereafter.

Teachers of physiology, psychology, vocal utterance, etc., are "doctors of the mind," and lessons of the mind, as far as the exercise of our faculties is concerned, cannot be properly taught apart from lessons of the body.

Physicians make a study of the entire body in a material way, being absolutely necessary in the exercise of their profession. The physician of the mind, the teacher, who wants to arrive at correct principles regarding the exercise of any of our faculties, will in the future be obliged to make a study of all parts of the body in a spiritual way; the fact having been established that body and mind must act together in the exercise of any of our faculties, or gifts, more especially the gift denominated vocal utterance in any and all of its features. As body and mind must act together to establish the phenomenon of a living human being, so they must act in unison for the purpose of exercising any of his faculties. As long as science deals separately with body and mind no correct principles can ever be established.

It does not appear to me, however, as necessary, for vocal teachers or psychologists to make a detailed study of the anatomy of the human body, as to become possessed of a general idea thereof. Even this knowledge will be of little benefit unless it is made use of for the study of the influence which the spirit exercises upon the relation and correspondence of the different parts and systems among each other. In other words, we must know how the spirit moves and influences the different parts of the great machinery mechanically constituting a human being in order to make a homogeneous living entity out of the same, and in so doing enabling it to exercise its various gifts and faculties; particularly also, and which at this juncture is of more especial interest to us, how the spirit exercises its influence in the production of language.

ATTRACTION AND REPULSION.

What has been said in the preceding is explanatory of the phenomenon presented by the congenital deaf when awakened from their lethargic state through the knowledge and comprehension of language. It is caused by the slumbering material factors in the animal ego coming in contact and fusing with spiritual factors of the outside world, or the slumbering immaterial factors in the ego coming in contact and fusing with material factors in the outside world, as the case may be, and quickening their life into the comprehension of spiritual things.

This capacity of man, consisting in the fusion of

innate, transcendental factors with outside concrete ones, or the reverse, as the case may be, is the main characteristic quality which distinguishes him, and at the same time separates him from mere animals. The latter are confined to their individuality, to man belongs the universe. I positively repudiate as unworthy the expression "the lower animals" now so frequently used in juxtaposition with man. Man's faculties place him far beyond any other creature and show that he is not only possessed of divine qualities, but that he is of divine origin. The expression "animals of a lower order," by which man is represented as an "animal of a higher order," is a calumny upon the latter. He represents an order of his own; though in many respects related to animals, in others he presents features of an order quite apart from them.

The essence of language, when properly understood, and more especially the "word," are the truest exponents of our spiritual life.

To this outer and inner, the a priori and a posteriori, the abstract and concrete, that which is limited to the ego and that which concerns the world beyond it, I have repeatedly called attention as "ingoing and outgoing" sounds and words, emanating from the trachea and the œsophagus, or the reverse, as the case may be. He who thoroughly comprehends this process (which represents our dual nature), and in comprehending it gains control over it, the exercise of oratory and song in all their bearings and highest qualifications become matters subject to his will.

What this "ingoing and outgoing" as a matter of fact is,—that is the mystery. The outgoing is what

is transcendentally imbedded in the German language and being, the ingoing is what is transcendentally imbedded in the English language and being.

It may be an atmosphere surrounding and belonging to every individual, which, while separating him, connects him with other individuals and the world; an atmosphere which is peculiar to every individual's distinctive characteristic idiosyncracy and makes its influence known to us as attraction or repulsion in connection with other individuals. For my part, I think it is connected with that mysterious agency known to us as electro-magnetism, with its constantly shifting poles correlatively influencing and being influenced by atomic and molecular attractive and repulsive forces. This psycho-electro-magnetic influence is not only permanently and positively imbedded in us, but also surrounds us and thus pervades our entire being interiorly and exteriorly. It is of the same order as the mysterious "astral" body of which spiritualists speak as permeating the entire physical body and surviving the latter as a perfect spiritual counterpart thereof.

PERCEPTION AND CONCEPTION.

A N Anglo-Saxon first perceives and then conceives, a German first conceives and then perceives. Of this dual action an Anglo-Saxon consequently first becomes conscious of the real and then of the ideal, a German first becomes conscious of the ideal and then of the real.

When in my English mood I picture to myself a carriage, a horse and a driver, I see these objects distinctly before I become conscious of the fact of the three acting together to produce easy locomotion for a person inside the vehicle. While in my German mood, I become conscious of the action first and the details afterwards.

Or, I may picture to myself a child falling into the water and a man rescuing the same. If in my English mood, I will see these facts in detail and then become conscious of a good deed. When in my German mood I first become conscious of a good deed and then only recognize the details thereof. Thus Germans take in the entire situation, every detail contributing to form a complete picture; while Anglicans see separate objects and then combine them into a whole. The latter thus see objects in clear outlines, the former see them as in a haze fusing with their surroundings. These facts are

quite perceptible in connection with the art of painting, more especially of landscape painting. In a landscape painted by an American, as a rule, objects stand out clear and well defined; in one painted by a German earth, sky and atmosphere melt into one; in one painted by a Frenchman, notably one of the Barbizon school, this feeling is intensified by being confined to fewer objects—a clump of trees, or a single tree even, water and a bit of sky.

Anglo-Saxons, while painting, open their eyes wide, looking straight and clear at their object; Germans close theirs to some extent, seeing their objects in somewhat of a haze; while Frenchmen close theirs still more, embracing a narrower scope, but with intense feeling. Anglo-Saxons paint from the exterior inwardly, Germans from the interior outwardly.

When riding through some beautiful part of this country I am shocked by the many signs advertising ever so many "dreadful" things; my German nature revolts against this sight, which, mingling with the landscape, blurs it and prevents me from one moment's real enjoyment thereof. An Saxon, however, seeing these things singly, can shut the signs out from the landscape and enjoy the latter by itself and without being greatly disturbed by the sight thereof. He will never see the poesy of the landscape in its entirety, however, as a German does. Not for a single day would Germans permit their country to be used as an advertising sheet for nauseous medicines, covering entire barns and houses, merchandise of every description, eatables, and what not, for miles and miles in procession along the

most frequented routes, and even spreading out their horrors unblushingly in the most sequestered spots, which nature seemed to have specially reserved for itself as shrines of devotion for its most favored children among men. There is no mountain too high, no ravine too deep, no river too grand, no brook or valley too charmingly poetic to prevent the greed of man from setting up his "shop" right in their midst. The *only* sign I noticed along the banks of the river Rhine was that of an American food product.

Yet an American can still admire here undisturbed, where a German will turn away his eyes in utter dismay and disgust. If this were not the case these desecrations would not and could not continue to exist from day to day, from year to year, where they are most apt to "catch the eye" of the traveller, unblushingly regardless even of those among them whose souls are thirsting for the beauty of nature in undisturbed meditation.

The first part of a dual action is always the leading and prevailing one; thus with Germans the abstract prevails over the concrete, with Anglo-Saxons the concrete over the abstract. If these peoples would bear this clearly in mind, many obstacles now in the way of an amicable understanding between them would be cleared away through a better comprehension of their respective characters and consequent actions under the same circumstances. The final conclusion would be that they are nations which should not so much aim at rivaling with each other as at *complementing* one another. Each taking advantage of the other's proficiencies would be filling up a gap which is wanting in their own

composition and consequent accomplishment. To bring this about the erroneous idea of their being closely related, in fact being kith and kin, must first be abandoned, after which a clearer comprehension may be arrived at.

I have heretofore stated that the idiomatic expression of the English nation was the original product of the action and commotion of the waves of the ocean, by which their country was surrounded.

In prehistoric times this language was probably confined to expressions of the most primitive nature. When the Angles and Saxons came, their crude original expression gave way to the language and words used by these invaders, but being a people of a realistic turn of mind, and not yet ripe for expressions of an abstract order of things, they learned from them only such words as were used to designate things of use, of home, the acre, and of a realistic purport generally. These words, however, in being adopted from the German, were first subjected to these aborigines' idiomatic form of expression; only much later, after the more refined French came among them, they became acquainted with those abstract expressions of language which denote the higher standards of knowledge and culture in a nation.

Thus with them the words expressive of perception, the real, which was also the dominant feature in their character, came first, and were derived from the German; words expressive of the concepts, the ideal, came afterwards and were mostly derived from the French. All of these expressions, however, as heretofore shown, were submitted to their idiom be-

fore they could become integral parts of the English language.

An outcome of all this is a singular mode of intonation the English put upon words, which strikes the observant foreigner as peculiar and almost incomprehensible. So at least it was with me at first and for many years, until I arrived at a comprehension thereof through these studies.

When you hear an Englishman speak of

Westminster Abbey, London Bridge, Hyde Park, or an American of

Fifth Avenue, North River, Newyork and a German, on the other hand, of the

Thiergarten, the National Gallerie, the Kaiserliche-Schloss, the Wartburg, etc.,

you will see at once that the Anglo-Saxon puts the stress upon the thing itself, the abbey, the bridge, the park, the avenue, the river, the city, etc., while the German puts it on that which defines it, the Thier, the National, the Kaiserliche, the Wart, etc.

Anglo-Saxons put it upon realistic, Germans upon idealistic parts of speech. With the English it is jambic, with Germans trochaic. With the former it is centrifugal, it goes in and then out; with the latter centripetal, it goes out and then in.

Anglo-Saxons put great stress upon the personal. pronoun "I," which Germans utter with a half-suppressed expression. Not that the latter are less apt to assert themselves, but, according to their philoso-

phers, the "I" is rather a shadowy thing, which needs must be defined; while with Anglo-Saxons it is a very positive factor, which asserts its existence beyond any other. This "I" of the Anglo-Saxon (which, with the exception of the pronouns which stand for the name of "God," is the only one he writes with a capital letter, and which he pronounces with a particular stress), is characteristic of the entire race. With him everything is viewed with reference to his personality; everything emanates from him; everything reverts to him. Germans, on the other hand, are optimistic. They in fact often take a greater interest in things of an exterior or foreign nature than those belonging to themselves. This gives ordinary Anglo-Saxon conversation the flavor of one-sidedness and narrowness, that of educated Germans of an altruistic and extensive nature. Other countries possess an interest for Anglo-Saxons but in so far as they pertain to the sphere of their personal interests; Germans are interested in them for their own sake.

Other examples illustrating the preceding are:

Rice-pudding, cherry-pie, apple sauce, hot-soup, strong-coffee, as against

Reispudding, Kirschenkuchen, Heisse Suppe, . Starker Kaffe, etc.

Central Park, Broadway, Chestnut street, as against Central Hotel, Hauptwache, Kœnigstrasse. City Hall, Locomotive, Railroad, as against

Rathhaus, Locomotive, Eisenbahn.

Post-office, United States, United States Hotel, Gray uniform, as against

Postgebäude, Nordamerica, Gasthaus, Graue Uniform.

Wunderbar shoen, herrliche Aussicht, as against Very pretty, fine view.

Notice in these last sentences the exaltation in the one as against the quiet enjoyment in the other case.

These are things which foreigners have to learn if they want to speak these languages in the same manner that native-born people utter them.

These matters are at the same time characteristic of the national traits of these respective peoples.

PHYSIO-PSYCHOLOGY.

The power which drives the Anglo-Saxon system being centrifugal, Anglo-Saxon motion is indirect and in consequence thereof every action connected with speech more extended than with Germans. The natural tendency with them being to have their mouth open, their motion for speech is close, open, close, open. In watching the motions of the mouth with Anglo-Saxons during speech and song, you will find that for words of the sphere of the thorax the oral cavity is but slightly extended, and that it extends proportionately more and more as the distance increases between the mouth and the seat of the origin of the words. It extends least for words of the sphere

of the oral cavity, further for those of the thorax, still further for those of the abdomen, and most for those of the pelvis.

In conformity with the centripetal power driving the German system, the tendency with Germans being to keep their mouths closed, every motion is direct, which for speech means open, close, open, every action being of proportionately smaller dimensions.

For English speech you will observe that the least expansion of the mouth and the least motion is required for words belonging to the sphere of the oral cavity, which words, though immaterial, cannot be said to be spiritual, consisting of words representing the article, the conjunction, the preposition, etc.

Words having their origin next adjacent to the mouth, namely, those of the chest, require greater expansion of the mouth and greater motion for their expression. They are purely spiritual, as honor, soul, justice, charity, idea, beauty, etc.

Words next in rotation are those of the abdomen, which are purely material. For their expression further expansion and still greater motion is required, as straw, wood, metal, floor, ceiling, brick, rock, ore, iron, etc.

Then come those of the pelvis, which are both material and spiritual, for which the greatest muscular extension is required. This class embraces all things living, from the lowest vegetable growth to man.

In addition to the four main classes here enumerated, namely, those of the head, representing words of an immaterial, but not "spiritual" order; those of the thorax, representing words of a purely spiritual order;

those of the abdomen, representing words of a material order; those of the pelvis, representing words of a material-spiritual and spiritual-material order, I say, in addition to these there are words in whose meaning the action of more than one of these classes is included. For their expression the participation of two hemispheres, even three, may be required.

Such words as yes, no; more, less; high, low; up, down; belong to thorax and abdomen, in this way, that the first part of the words yes, more, high and up belong to the thorax, their last part to the abdomen; the division being, as usual, in the middle of their respective vowel sounds; while with the words no, less, low, down, etc., the first part belongs to the abdomen, the last to the thorax. This can be easily tried. They cannot be uttered unless so produced.

Regarding such words as newspaper, Times, Herald, periodical, magazine, book, lithograph, sheetmusic, their first part belongs to the abdomen, their last to the thorax. They are spiritual-material. They are intended for a spiritual purpose, they are made of things material. To this class also belong the words, writing-paper, ink, pen, desk, bookcase, etc. Regarding the last two words, the shape which has been given to the material they are made of, may also be said to be of a spiritual or at least of an immaterial order. For all these words in German the opposite order prevails. In words of a composite character, such as I have called attention to in the last paragraph, as Broadway, Chestnut-street, Fifth-avenue, Post-office, Rail-road, etc., the first word is of the thorax, the last of the abdomen. The thing to be described—a street, an office, a road—being real, the descriptive word ideal.

In pronouncing any word of this class the action is from the diaphragm upward for the first word, the ideal, and from the diaphragm downward for the seond word, the real.

Everything I have said regarding these matters must be reversed for the German language.

Composite words, in this sense, that their first part belongs to one and their second part to another hemisphere, are never pronounced correctly by foreigners. They are great stumbling-blocks in their way to a perfect pronunciation, insomuch as the attack, by which muscles are moved in a given order in different languages, never is the same. While English thought in many of such composite words is first material and then spiritual, German thought is first spiritual and then material. Unless these matters are well understood, speech, and, above all, song, can never be rendered absolutely pure in a foreign language, and with many also in their own language.

In regard to song, the action is both physiological and psychological. It is first of the manner as here stated for speech, but subconsciously and without utterance, and is then of the reverse order consciously.

I should like to have this perfectly understood, as the principles underlying this action will help singers more than anything I can think of.

Singers instead of counting one, two, three, as for speech, which represent impression, repression and expression, must count up to six, representing impression, repression, expression—expression, repression,

impression; the last three being spiritual, or the proper mode of being tuned for song utterance. They may also count successively up to six and then, after a short pause, add seven, eight; this will still more enhance their power, as the two last counts once more reverse the entire process, thus doubling up the vibrations which have been set in motion. This counting, however, must be of the inner, not the outer nature, else it will be ineffectual.

Regarding the application of the psychological aspect of these matters to song, it will be well to remember that for English *speech* the percept, that is, the thing itself, is always of the first, the concept, its description, of the second order. For English *song*, however, this order is reversed.

It is necessary to think of the descriptive part first and of the thing to be described afterwards.

F. i., when singing

"'Tis the last rose of summer Left blooming alone,"

the order in which these words should be thought of is as follows:

The last of summer is it rose Alone left blooming.

This is the impression, the expression being the words in regular rotation. I feel sure the reader will meet with good results if he will give these matters proper attention.

The next lines,

" All her lovely companions
Are faded and gone,"

must be thought of thus:

Lovely all her companions Faded are and gone.

It will be noticed that the words of an ideal order precede those of a real order.

For German song words belonging to the real order of things must precede those of an ideal order.

"Eine einzige Rose
Fuehrt duftend allein
Im herbstlichen Garten
Ihr einsames Sein."

This verse for song should be thought of in this order:

Rose einzige eine Duftend fuehrt allein Garten im herbstlichen Ihr Sein einsames.

and then sung in the regular order.

All this shows that physiological and psychological studies, for the purpose of attaining proper results, must of necessity go hand in hand. It also shows that for every phenomenon resulting from the exercise of one of our faculties, besides a physiological process, there is a psychological one of a parallel order going on at the same time.

In addition to all this I must still call attention to another observation I have made in connection with these matters. For utterance of words of a material order the oral cavity is extended downwardly; that is, the bottom of the mouth is depressed, while the tongue is raised, so as to gain a free access to the œsophagus. For words of an immaterial order the oral cavity is extended upwardly; that is, the soft palate rises, while the tongue is lowered, so as to gain a free access to the trachea.

For the utterance of words representing things living, the soft palate of the upper and lower jaws (the latter being the soft part lying between the roots of the teeth and the frenum) alternately rises and falls.

This rule holds good for all languages.

REAL AND IDEAL.

When I said the Anglo-Saxon reaches the ideal by way of the real, while the German reaches the real by way of the ideal, I expressed a fact which presents itself to us in every feature of the true inwardness of the language of these two peoples.

Under the heading Stress, in "Duality of Voice," page 174, etc., I called attention to the fact that Germans must think of the word of the rising voice, the real, which is of the œsophagus, before they can utter those of the falling voice, the ideal, which are of the trachea; while Anglo-Saxons must think of the words of the falling voice, the ideal, before they can utter that of the rising voice, the real.

A German consequently must think of the thing itself before he can think of that which defines it, while an Anglo-Saxon must think of the definition before he can think of that which is to be defined. Hence what is nearest in our expression is last in our thought, while what is distant in our expression is nearest in our thought. If this were not so there would be a hiatus between the expression of the real and ideal in our mode of speaking.

In other words, if we could not utter words except by thinking of them as they come along, the thought of the next word would always intervene between the expression of the last and the one following. As it is, we bear the thought of the succeeding word already in mind before uttering the preceding one.

Song production being the converse of speech production, it is speech reinforced. The impression is of the nature of speech, the expression of that of song.

I could never produce song satisfactorily to myself until I had comprehended this. Not being naturally endowed with the gift of song, I had to elaborate everything out of nothing, until I reached step by step that insight which enabled me to attain that goal which gifted singers possess by intuition. It was in this manner that the science of the voice, as far as it has thus far been explained, has been elucidated. Let it then be understood that while song production is in every sense the converse of that of speech, it is at the same time a combination of both. In this manner, that we must mentally go through the process of speech production before we can, by reversing this process, express an idea in song.

We pursue both processes by which we first think of and then express an idea in speech, mentally, and without vocally uttering the same; and while still holding on to the thought we reverse the process while uttering it as song.

This gives us four stages for song to two of speech production. Hence the comparative slowness of vocal song utterance as compared to that of vocal speech utterance.

I must beg the reader to bear with me while attempting to explain these matters, which to me are quite clear, yet it is not easy expressing them clearly in language.

Let me use a simile. Almost every one has seen a person by a dexterous movement of his hand throw a playing card quite a distance off into the air, and seen the card, after a moment's delay, return in the direction of the person throwing it. Here is a double action merged into one. First, the impetus forward, involving, however, also an impetus back again. The impetus forward is speech, checked, however, before expression; the impetus backward is song, which includes that of speech unexpressed. In place of an effort going out and then coming back, as with a card, English song expression is produced by the thought first coming to us, then going out as speech, checked, however, before uttering, and then coming back to us as song; while German song expression is thought first going out, as with our card, then coming to us as speech, which thus reinforced finally goes out from us as song. There are thus three actions for song, against two as with the example of the card. It will be noticed

that for English song the thought comes to us, while for German it goes out from us, as previously explained.

When I speak of "the thought" it relates to what is most frequent in speech, and consequently also in song, namely, the expression of the spiritual, immaterial, ideal, abstract, conceptive, subconscious—the noumenon, all of which are expressions, covering in regard to speech production one and the same ground.

This being the leading principle in vocal utterance, it is the only one that needs to be considered; the opposite order of things, namely, the physical, material, real, concrete, perceptive, conscious—the phenomenon, following, as a matter of necessity, and as a matter of course, the lead of the great principle of spirituality. While we are right in the latter, the other rights itself.

Yet in most investigations, so far, the physical, material, real, concrete, perceptive, conscious—the phenomenon, is the only principle which has been taken into consideration, while the leading principle of spirituality has been lost sight of. Hence the unsatisfactory state and condition of the sciences dealing with vital and spiritual matters of any kind.





FRONT AND BACK. GERMANS IN AMERICA.

INJE are in the habit of concentring our thoughts upon what is in front of us, the anterior part of the body; our observations naturally tending towards that which we can see and touch; the mainspring of our nature being in the direction in which we walk and move about. To be able to thus live, so to say, anteriorly, however, and to perform actions in an anterior direction, other actions must take place not only to produce, but also to counteract these actions. These producing and counter actions naturally have their seat in the opposite direction. Now, when I say a German's main seat of language is with the thorax, I mean anteriorly; when I say an Anglo-Saxon's main seat of language is with the abdomen, I again mean anteriorly. But as sure as this is the case, you may depend upon it that the counteraction is posteriorly in the complementary hemisphere. Hence, while with Germans the "seat" of immaterial language is with the thorax anteriorly, it is with the abdomen posteriorly, as its complementary part. While with Anglo-Saxons it is with the abdomen anteriorly, it is with the thorax posteriorly as its complementary part. The thorax representing centripetal action and the abdomen

centrifugal, German speech is propelled by the former, Anglo-Saxon by the latter. Centripetal action, however, must be counteracted by centrifugal, and centrifugal by centripetal. Hence German speech, which is of the thorax, must be counteracted by the abdomen; English speech, which is of the abdomen, must be counteracted by the thorax,

Again, the thorax representing spirituality and the abdomen materiality, German speech, which is spiritual, must be counteracted by the material; English speech, which is material, must be counteracted by the spiritual. This also confirms what I have said before, that Germans reach the material by way of the ideal, Anglo-Saxons reach the ideal by way of the material; which is the key to the characteristic traits of these nations both spiritual and material. While they are opposed to each other, they complement one another.

Hence the offspring of a union between representatives of these two nations often bears in itself elements fruitful of the highest attainments. Such offspring, while American, unless forcibly led into German directions, still retains, as a rule, ideal propensities which lead them into German singing societies, and sometimes into that mode of reflection which looks at things from an inner and ideal, rather than an exterior and material, point of view. Still, on the whole, they are Americans and far removed from the Germans, immigrants, who have come to this country at a mature age.

In viewing the German element in this country, therefore, these two classes must be regarded separately, else reliable conclusions cannot be arrived at.

There has been a rather acrimonious controversy carried on of late, in German circles and papers, in which ultra-German and ultra-American views clashed without any apparent possibility of conciliation; all the parties to the same being Germans. In this controversy the difference between the German-born and the American-born elements of the German race in this country, so vastly different, was entirely lost sight of, hence the impossibility of reaching valid conclusions.

I will not enter further into this matter than to say that German immigrants can best serve their own interests and those of their adopted country by remaining true to their inborn propensities and ideals, which have borne fruit in so many directions, and have assisted in elevating the people of this country, by imparting to them a more reasonable, hopeful and cheerful view of life, in which contemplation, sentiment, repose and feeling enter, holding the balance to its but too rapid onward march of material accomplishment.

It is not German music alone which has contributed much to this end, but German ideals, learning, philosophy, art and character blended with such excellent native characteristics as a burning desire for liberty and independence allied to a great love of country; a thirst for knowledge; a desire for the truth; the exercise of patience under trying circumstances; a thrift which knows no bounds; a feeling of justice, helpfulness and charity for all, which extends beyond the boundaries of this country to the suppressed and downtrodden of all nations.

Hence the best thing for Germans to do, when they come here at a mature age, is to remain Germans

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in the best sense of the word, and not attempt to become Americans, which they can never become, except in a hyper-American way, which is neither German nor American. Only thus can they properly fulfil their destiny and fill that sphere of usefulness and influence which will gain for them in the highest sense the respect and confidence of their American fellow citizens.

GERMAN AND AMERICAN IDEALS.

The fact that my publications have been suppressed rather than furthered in this country by those for whom they should possess the greatest interest, can be traced to various physiological causes. The fear that these new teachings may militate against the personal interest of journals devoted to these matters, and teachers, is the main reason. That which produces this fear, however, must be considered the underlying cause.

While Americans in connection with realistic, more particularly utilitarian projects, are daring and fearless, they are cautious in connection with studies of a spiritual order.

The spiritual not being imbedded in their nature, they cling with desperate effort, often against their better judgment, to tradition transmitted to them from the past. They fight shy of anything new that threatens to upset their old beliefs. Nor have they the "time" to investigate abstract or abstruse questions, such time being looked upon as wasted. Germans,

however, in whom the spiritual is imbedded, possess in their own persons the treasure-house of the ideal, which makes them in love with nature and all that is beautiful and of a high order. With them the traditional, consequently, is not of the same superior and sacred order which it is to the Anglo-Saxon mind, which has what is coming to it from the exterior, the tradition, in the main to cling to. Hence the sacredness to Anglo-Saxons of the Bible and the Sabbath and similar things transmitted to them of a spiritual order.

They are thrilled by the holiness and the stillness of the Sabbath and shudder at rude, vulgar and profane interruptions of the same. The realistic strife, bustle and outcry of the week is stilled, and the soul retires within itself and is busy with God. The German, however, who bears his ideal within him does not feel constrained to devote to God's service all of his weekly holiday.

Hence the constant conflict as between native and foreign elements in connection with the keeping of the Sabbath, and the amazement of foreigners at the interference on Sunday with their personal freedom in this the land of liberty.

The Hebrew mind through all the centuries seems to have been of a similar order to that of the Anglo-Saxon, clinging as it did to the traditional letter of the "law" and the strict observance of the Sabbath, while its inmost thought was given to barter and the accumulation of wealth.

These facts also explain the reason why so many educated Anglo-Saxons still closely embrace orthodox tradition in spite of the advancing march of enlightening scientific insight. What is the consequence? Their reason is with science, their heart belongs to tradition. Europeans not possessing any knowledge of these physio-psychological causes, simply view these conflicting tendencies as an underlying stratum of "insincerity and cant" in the Anglo-Saxon character.

The high ideals of the Germans on the other hand are productive of classes, mainly of what they call the "Gebildeten" (educated) as against the "Ungebildeten" (uneducated). With them the classes are against the masses in this assumed superiority as much as the masses are against the classes. With us it is at most the masses against the classes in their strife for the betterment of their condition. Hence with us such a thing as anarchism and even socialism is scarcely known, all classes being on the same footing; springing as they do from the people and belonging to the people.

In Germany the classes, in the first instance, are composed of those who have the time and the opportunity to devote to their ideals, quite apart from matters of usefulness, as against the struggling masses who have not the time and the opportunity to devote to the same. With us there is no striking difference as between one class and another; we are all moulded of the same clay; we all have the same ideals. Hence few dare step forward, and in spiritual matters take an independent and opposite stand to that of the vast majority of their countrymen. The mind of this country in matters of religion (in spite of its many Christian churches of different denominations, which as a

matter of fact in essentials differ no more than the various grades of apples on one and the same tree) is a plateau of fairly level ground, with but here and there a hill and scarcely any mountains; the republican idea being paramount a levelling idea. The spiritual mind of Germany, on the other hand, may be likened to a Switzerland composed of valleys, various grades of hills and not a few towering mountains. The unthinking masses are in the valley, controlled by their priesthood, no independent thought ever entering their minds, while every shade of spiritual difference among their superiors often rises mountain high all around them.

All classes in this country belonging to the people, we bow to the thought and will of the majority; and this unity of sentiment and equality of ideas and ideals, in fact, is the secret of the democratic idea being so successfully solved and maintained in this country. This is done notwithstanding the great disparity of worldly wealth distributed among our citizens, the spiritual wealth among us being largely of one and the same order.

Pretty much the same kind of literary food is consumed by the woman in the drawing-room as by the one in her kitchen; the same newspaper is read by the man in his counting-house as by the boy who runs his errands; nor do the topics of conversation vary greatly as between the higher ranks and the lower.

These statements may be looked upon as too sweeping, and so they are when taken literally. There are many noble exceptions to them here as there are ignoble in Germany. The exception, however, as usual, always intensifies the rule. We have no hereditary aristocracy to which the people bow with deference. We have no army whose officers are recruited from this aristocracy forming a distinct class unapproachable by the people. We have no bureaucracy also considering itself of a superior order; nor have we a priesthood not immediately sprung from the people. With us, all classes spring from the people and after their term of office return to the same. There is no title prouder than that of an "American citizen."

German idealism, on the other hand, is in need of its idols to which it can look up, bow to and be servile to. There is no such servility with us.

The laborer listens to the demand (not command) of the employer and performs the task allotted to him; but he does so manfully and independently, knowing that it is not impossible for him some day to be the employer. He looks his employer straight in the face and argues a point with him, if necessary, as on There is no abashment with him and equal terms. no fear. In this matter of independence as against servility there is our strength and our success.

When it comes to spiritual matters, however, we bow to the thought of older nations, more particularly to that of Germany, a nation par excellence of thinkers, from the fact that spirituality is imbedded in their nature.

Our spiritual leaders are much in the same position as our social leaders, who lack the firm position which heredity has assigned to those assuming that rôle in older countries. Hence the fear of "society" making a false step, and the persons composing its

close and "select" circle drawing the line strictly against any "foreign" and "undesirable" elements; "foreign" in this instance meaning elements antagonistic to their views regarding the proprieties of dress, manner and behavior, and excluding all free and independent elements of a higher order which in their opinion are undesirable elements, theirs being the worship of superficial accomplishments.

Our leaders of thought, in a similar manner, fear of admitting and thus acknowledging new spiritual elements. This fact has been thoroughly exemplified in my case. I have been a disturbing element in their conservative slumbers, hence their cold indifference. Yet the American people are eager for knowledge. It is a curious spectacle, probably never before witnessed, to see hordes of young men and women, students of colleges and universities, doing menial service in summer hotels for the purpose of earning a few dollars to enable them to continue their studies "the next session." Nothing more praiseworthy has ever been witnessed. German pride would rebel against such an insinuation and sooner starve than submit to it.

Yet with all our eager desire for study and the possession of knowledge; with all our institutions for learning, our richly endowed colleges and universities, we lack the true intuition for spiritual knowledge. We may import German books by the shipload, we cannot import the German spirit. The consequence is that our students still go to Germany for their higher knowledge, and they will some day go there also for this knowledge which I have in vain endeavored to bring

to the attention of the American people these last ten years.

Though originated here, it has not obtained any footing in this country, while in less than one year after its publication in the German language, the Germans are already now beginning to form societies for its study and for the purpose of formulating it into plans for practical instruction.

Looking at these matters in another sense, it may be well that we cannot import the German spirit, as together with it we would also import its superciliousness, resulting in class distinction, which would be death to our free institutions. While we thus suffer in one sense we gain in another; while Germany thus gains in one sense, it suffers in another. Our learned men are simple and modest and of the people, while the learned mind of Germany is filled to the brim with the sense of its importance, forming a class of its own. And so do their artists, jurists, doctors and others form separate classes; while with us, apart from their special profession, all are of the people.

We have no titles, while in Germany the title is an ingredient part of a person's being, and even extends to its possessor's wife and children. We have but one title, "gentleman and lady," applied to a noble spirit, when allied to refinement and culture; that is our nobility. Then there is this other title of a "real man and a true woman," or "manly and womanly," when applied to their actions, which extends to all classes.

The greatest levelling factor in this country is

as well as the day laborer—and as all are workers, all are of the same order, and there is thus no room for classes. There is no provision made for those who do not work, hence our idlers often find their way across the water, where they find congenial company, for which they would look in vain in this country. What wonder then that this country, with its endless faculty for work, should make such marked industrial strides forward?

Germans may come here and study our industrial conditions. They may learn much, but they will never be able to carry the spirit that underlies them home with them, no more than we can import into this country the ideal spirit underlying German superiority, productive of works of deep and earnest thought, into the realm of the mind, of science, art, music, and research into many other fields of knowledge.

These two nations may *imitate* each other; they will never be able to *emulate* each other in their respective fields of superiority.

Nor will Germans be able to contend with us in that spirit of liberty, that love of independence implanted in every American heart, no matter how humble and low its social position; that spirit which enables any one gifted with inborn capacity to aspire to the highest and to often reach it by pluck and perseverance; that spirit which does not look up to any one as being a priori privileged beyond any one else. This is the spirit which makes this nation great and engenders a pride of country unparalleled elsewhere.

In spite of that, the sad spectacle prevails here of

civic indifference and unblushing political malpractice among those who hold office. The cause is, our "best" people are too busy working for their personal interest. They cannot "afford" to hold office and devote their time to the public good. Hence politics is made a business of by those who know best how to coin it into money.

If precisely the same conditions do not prevail in England, it is mainly due to the fact that it is an older country, and that various other factors, not of a parallel order, enter into its composition. In the main, however, we are very nearly one and the same people.

While the underlying principle with us is "work," its counterpart is "sport."

A nation given to material pursuits must find vent and an outlet in material leisure; that is, in an allied, though opposite direction. Thus Germany's ideal mind finds an outlet from its daily pursuits in other ideal directions; the love of nature, conversation, music, art, etc. The sporting spirit with us, however, while it is at the bottom of much that is of evil, is also at the bottom of much that is good. The evil consists in this ceaseless strife after material wealth. It is not so much the desire to possess it as the desire to possess more than some one else; to rival with others, to be at the top of the ladder. The proof that this intent desire for possession is of a sporting character is, that when acquired it is often spent carelessly and as fast as it is made.

The good derived from this kind of "sport," on the other hand, is, that it is thus often spent for unselfish purposes, for the public good, in a spirit of helpfulness

and charity. And even in this rivalry, or the sporting spirit in its highest sense, there sometimes enters as an underlying motive, the incentive to see "who will do the greatest amount of good," a noble rivalry to be sure.

Our very pleasures are work of some kind or other; every recreation must have an object in view, every sport being indulged in with the object to win. We rarely walk for the mere pleasure of walking, and vastly prefer driving, riding, boating, etc. Germans, on the other hand, love to walk, and while doing so indulge in the contemplation of nature.

While love of nature and the ideal impels Germans to seek the mountain tops, Americans will race up a mountain, watch in hand, to see who can first get to its top. This is true, not only metaphorically, but literally also.

There is one word used in both languages which emphasizes these characteristic qualities in a most precise manner. It is the word "ideal." "Das Ideal" with Germans stands for everything that is high, noble, sublime. It is the highest goal to which every member of the nation aspires. It is not anything definite, but takes the place of what Anglo-Saxons, in a sense, comprehend in using the word "Christ" or "God." The God idea with Americans, however, is also of a more or less realistic nature, as He is called upon to help and interfere, while "das Ideal" is a purely spiritual conception. "Das Ideal" is implanted in the heart of the nation, it represents all that is lofty and sublime and worthy of being emulated. It is Germany's God, or Goddess rather. All her yearning, longing, de-

siring, hoping is a desire for the ideal, always before them, yet never to be attained; the desire to divest the soul of the dross of the material earth and bathe in zones of purest ether.

The same word in the English language is applied to anything and everything of a superior order. To the ideal mode of living, eating, travelling, dressing; the ideal store, saucepan, mousetrap; the ideal bonnet, corset, hairpin, etc.; anything and everything that we like better than something else is the ideal thing.

"Das Ideal" impels German students to chivalrous acts; to fight in single combat (like the knights of old) the antagonist whom they fancy has assailed their honor. The cuts they receive on these occasions, after disfiguring them for life in the scars they leave behind them, are marks of "honor," which they display with as much pride as the cords, chains, ribbons, metal eagles, lions, etc., attached to them, and given to them later on in life as marks of distinction and honor; and woe to the man who addresses them without proper reference to the rank which they convey.

Nothing of that kind is known with us; the only mark of distinction conveyed by the government and permitted to be worn is one given for bravery in rescuing life on the sea, on the coast, or in a fire; and even these are rarely displayed. Hence we are a nation of civilians, not aspiring for reward or public recognition.

"Das Ideal" also impels German students to drink beer in immoderate quantities, while listening to music and indulging in conversational excursions into the highest regions of the mind. The spirit of the beer helps the spirit of the man to reach transcendental

realms; though regions of the lowest order are also often reached instead. Its consumption, in common with others, fosters the fraternal spirit and helps bearing "the Weltschmerz." It is also productive of the intimate "du," an unknown factor with us; the reserve in the Anglo-Saxon character, produced by his indirect mode of breathing, not admitting of an indulgence in such tokens of intimacy with mere casual acquaintances.

The worship of the army, also of a similar order in its chivalric import, has no parallel in this country. The army makes its presence felt everywhere in Germany and has the sympathy of the people far more than its far-away navy.

In the more sober regions of our youthful enthusiasts, baseball, football, lawn-tennis, golf, rowing, swimming, athletics of every description take the place of these more or less sentimental indulgences and the man in after life must make his way, not by the display of outward signs of distinction, but by his inner worth.

Our universities glory in the possession of a football team which can beat that of some other university, and some students are actually drawn to that university which has the "best team"; a state of affairs which would simply fill a German student with disgust.

The majority of our students of late, after absolving the university, enter business as their life pursuit; while in Germany, business is still looked down upon by those aspiring to "higher things" with hauteur and disdain.

One of our ideals is the speaking of the truth.

One of our Western or Southern desperadoes, otherwise devoid of all principle, will at the peril of his own life shoot you down on the spot if you tell him he lies.

Personal cleanliness is one of our ideals. No other race can vie in that respect with the Anglo-Saxon races.

The worship of womanhood is one of our ideals. The humblest man, in the feeling of his manly strength, thinks that he should be its protector. The tired laborer gets up from his seat in the car and offers it to an idle, thoughtless girl, not that she deserves it, but from a sheer inborn sense of chivalry, and she accepts it as her due. The heart of our people is full of kindness and helpfulness, which finds its exponent by the rich in endless works of charity. Our government has no hand in them; it is the free offering of the people. What is all religious belief, every spiritual theory, alongside of this inborn trait of character? Every heart in this nation is filled with a feeling of helpfulness for his helpless brother; knowing there is no one else to help, if he does not do it. He is the government, and this duty, elsewhere of the government, in this country largely devolves on him: these matters in Germany being mostly left to the care of a paternal government, a condition to which the spirit of this nation is radically opposed. In spite of all our realism we have our true idealism, as the Germans have their realism; but the preponderance of realism is with us, as that of idealism is with them.

PHYSIOLOGICAL CAUSES.

There is no end to the comparisons as between German and American ideals, every phase of life offering opportunity for similar observations as those previously made. The main object I had in view in the presentation of these facts having thus been clearly established, namely, that the "spiritual" or ideal is imbedded in the persons forming the German nation and speaking the German tongue, while the "material," or real, is imbedded in the persons forming the American nation and speaking the English tongue, it also follows as a matter of course that to complement these factors the material comes to Germans from the exterior, while the spiritual comes to Anglo-Saxons from the exterior. The same facts of course obtain with all nations speaking these respective tongues. Hence Germans are rooted in the spiritual, while Anglo-Saxons are rooted in the material as their preponderating elements. Regarding this question of being "imbedded" in a person and "coming to him," it is of the same order as a person's individuality and the relation he bears to other persons and the world at large.

The psychological knowledge thus obtained regarding the difference as between the German and Anglo-Saxon character, is supplemented by parallel physiological knowledge, which teaches, as I have heretofore shown, that Germans inspire into the abdomen and expire from the thorax, while Anglo-Saxons inspire into the thorax and expire from the abdomen;

the last stage always being the leading one in any dual process. Germans expiring from the thorax, the seat of spirituality, idealism with them has the preponderance; while Anglo-Saxons, expiring from the abdomen, the seat of the material, realism with them has the preponderance.

It also shows that the German dual system is driven by centripetal or concentric, while the Anglo-Saxon dual system is driven by centrifugal or eccentric force. That is to say, inasmuch as these opposing forces in living human beings always complement one another, the preponderating or prevailing force is the one which lends its character to a movement. This dual action in a human being speaking the German language, in being centripetal, has the tendency of producing vocal utterance by rapid motion, while it produces its counterpart, muscular action, of a relatively slow order. In a human being speaking the English language, on the other hand, this dual action being centrifugal, has the tendency of producing vocal utterance of a slow, and its counterpart, muscular action, of a rapid order. Hence with Germans the concentric motion prevails for speech, the eccentric for work. With Anglo-Saxons, on the other hand, eccentric motion prevails for speech and concentric for work. During eccentric motion for work with Germans, the hands, which during repose are usually apart, I, join; 2, move apart; 3, join loosely; 4, again move apart, and 5, come together for work.

During concentric motion for work with Americans the hands, which during repose are usually near together, 1, move apart; 2, loosely join; 3, move apart,

and 4, come together for work. (Compare pages 130, etc., of "Duality of Voice.")

During work, as hand-knitting, f. i., the hands of Americans remain near together, while those of Germans move farther apart. The same observation can be made in regard to walking, Germans making larger strides than Americans. The outcome of all this seems to me to be this: The Anglo-Saxon machinery, through its language, is set in motion centrifugally; the German in an exactly opposite direction, centripetally. The result is a perfect contrast in all the underlying causes producing their respective actions of any and every description. This, however, is not a matter upon which I can enter at greater length at this time; it would lead me too far away from my subject.

I have entered upon it to show whence this greater activity with Americans; this greater production and success in industrial pursuits; this driving and pushing and go-aheadism. It is not that the Americans are by nature or by inclination more industrious than their German brothers and sisters, but that their system is driven by a force which lends itself to greater capacity for work; the additional one-fifth more work, as just enumerated, an American performs, being the natural outcome of his system, and is not done by any extra exertion on his part. The children of all foreigners born in this country and speaking the English language idiomatically correct, share in this advantage.

As long as we imported foreign labor into this country in the shape of manufactured goods, wages being so much lower in Europe than with us, we had

but little opportunity for making any great strides forward. The protective tariff, however, has set our "hands" free, which were formerly confined to making the lowest class of goods, and now, having had the opportunity of getting our industries started, which was formerly denied us, we are actually exporting many classes of goods to Europe which were formerly imported from there.

The word "hands" is a characteristic English expression for laborers.

This again shows that in the rapidity of speech, which is of a spiritual nature, spiritual factors predominate with Germans, while in the rapidity of labor, which is of a material nature, material factors predominate with Anglo-Saxons.

Work is the product of positive and negative factors approaching each other and fusing; the left hand representing the negative, while the right represents the positive factor. The coming together, or the near approach to each other, of the finger-tips, causes the positive and negative factors of a fluidum, supposed to be electric magnetism, to pass from one hand to the other, which vitalizes them into action and enables them to more or less rapidly perform the work.





THE BRAIN A CENTRAL TELEPHONIC STATION.

Considering what has been said regarding the origin and location of words, we may comprehend how it is possible for a child to learn to express an idea in a word.

After passing its first lethargic state, during which every agency destined to form the basis for its future existence gradually settles down to its proper position, material and spiritual factors begin to fuse in the sounds baby first begins to utter in its cooing. Every impression having a special place assigned for itself in the body, a correspondence is at once established between such place and the brain. The organization established, all that is needed for an idea to be materialized or expressed is a word. The word being supplied by its mother or other persons, the child begins to utter the same, and in future continues to use the same word to express the same idea. The close relation and affinity existing between the object, material or immaterial, first producing the impression, and then the idea, and the place where such idea originates in the body, and corresponds with another in the brain, enables the child to give a definite and constant expression to such idea through the word.

If this material-spiritual relationship did not exist, how would it be possible for a young child to always express the same idea in the same manner? Or to express the same idea by different words, when it is taught to do so in different languages, if such words were not "soulfully" expressed in all languages alike?

Would there be such a thing as a memory, could ideas be always expressed by the same word, if they were only mechanically conveyed? Could a thoughtless child or even a grown person thus always express them? Impossible.

Memory, therefore, is not a storehouse of the brain, promiscuously filled with all manner of words, but it is a storehouse carefully planned and laid out in the trunk of the body with corresponding chambers in the brain. These again correspond with impressions either material or immaterial. An impression of a material order is first made on the body and then on the brain; an impression of a spiritual order is first made on the brain and then on the body. There is always a correlative action, however. Hence memory is a process of dual nature, in which body and mind form a trust for the gathering and expressing of ideas.

An object a child sees, say an apple, is spiritually reflected as in a mirror, in the group "fruit," located in a given part of the body. There is thus a correspondence established between the nature of the apple and that of the child. The impression made upon the body is then conveyed to the brain, upon which the child becomes conscious of the apple and is enabled to utter the word.

The nature of the apple represents a spiritual

photograph conveying to the child's mind the idea of an apple and is expressed in the word, no matter whether it be the English, German, French, or any other version of the same idea. This is of the same order as the process which, when conveyed directly from mind to mind, even between persons of different nationalities, not speaking the same language, is called telepathy.

The simple reflection of the picture of the apple on the iris of the eye would not convey the idea, no more than the spoken word would convey the idea, but for this association and relationship of the object with the part where the idea thereof is represented in the body and the brain.

It is assumed that all impressions are made upon the brain only. I think I shall be able to show, quite conclusively, hereafter, that such is not the case, in so far as the brain acts mainly as the mediator between the locality of the idea in the body and the place where the impression has been made on the iris, the eardrum, the tongue, the epidermis, or the nasal ducts in conformity with whether the thing has been seen, heard, tasted, felt or smelled. It acts in a similar manner, by association, in respect to abstract thought.

Hence I expect to prove that the brain is not the sole seat and custodian of the intellect and the mind. It is the central station, rather, as it were, of a net of telegraph or telephone wires, in which messages are received and from which messages are sent out in a thousand directions.

The messages are first received by the positive factor of the brain from the negative factor of the vessel on which the impression has been made; they are then returned to the positive factor of such vessel. From here they are sent to the negative factor of the brain in correspondence with said vessel, as a dual message of the body and the brain, where they are crystallized into the thought of which we become conscious. It must be evident that the flow of speech or of song cannot be the outcome of a direct influence of the brain upon the vocal cords. They flow from an endless number of sources, to unite in the syllable, the word and the sentence.

This is not the entire process, however, as there is an additional correspondence going on between certain ganglia and glands of the lymphatic system, also in correlation with the brain and the vessels to which the first impression has been conveyed, which latter correspondence enables us to express the thought by the word. Just how this additional correspondence is carried on I am unable to say; but I shall produce proof of its existence.

This shows that the lymphatic system, with its ducts, ganglia and glands, is of the first importance in connection with vocal utterance.

That part of vocal utterance which is representative of emotion, feeling and sympathy, on the other hand, is closely affiliated with the circulatory system of which the heart is the central organ.

When we are groping about for an idea and a word, the opposite poles for the establishment of a correspondence between body and mind fail to form a union. While we are thus groping they sometimes approach each other, but without actually uniting. When

this is the case we come near having the idea, yet fail to grasp it. After this the poles again separate and again approach each other, until they finally meet—and, like a flash, we have the idea and the word.

Try and think with your brain or head only, keeping them intact and apart, and without communication with any other part of the body, and see if you can gather a thought or utter a word, a syllable, or even a sound of any kind.

While for the various purposes of correct vocal utterance it is important to understand the origin and locality of vocal *sounds*, it is far more important to comprehend the origin and location of *words* representative of ideas. No word can be uttered with its proper intonation unless the brain is in direct communication with the locality of its embodiment in the trunk of the body.

Regarding this place, it has already been stated that the "locality" is the place not only of the first impression, but also for the final expression. The place for the *expression* of an English word is that for the *impression* of a German, and the place for the *impression* of an English word is that for the *expression* of the German word.

Try a word representing a flower. The impression is made on the glands of the right side of the thigh, the expression on the left side just opposite. For the corresponding German word these relations are reversed.

For the expression of a word of a material order we expire from the thorax, inspire into the abdomen, inspire into the thorax, and expire from the abdomen. For a word of an immaterial order we expire from the abdomen, inspire into the thorax, inspire into the abdomen, and expire from the *thorax*.

For a word of a material-immaterial order, representing things living, these two processes in combination for an English word succeed each other as above; for a German word this order is reversed.

To prove the correctness of the above, place your hand on the top of your head and attempt to pronounce a word of an immaterial order and you will not be able to utter it.

When you, on the other hand, produce a pressure against the perinæum (this place where so many vital elements meet) you will be equally unable to utter a word of a material order.

You will have no difficulty, however, uttering words of either order by reversing these pressures or making the respective parts rigid; that is, you will have no difficulty uttering words of a realistic order when pressing your scalp, or those of an immaterial order when pressing the perinæum.

When such pressures are produced before thinking of a word you will be prevented from even mentally conceiving words of the respective orders I have mentioned. All this goes to show that immaterial thought originates with the brain, while material thought originates in given places of the lower part of the body. It also shows that the former corresponds with given parts of the thorax, while the latter corresponds with given parts of the brain.

The following is offered as positive proof regarding the assertions made as to the correlative influence of brain and body in connection with thought and language: While seriously pondering over some question you are apt to stem your elbow on a table in front of you, while resting your forehead in the palm of your hand. The moment you arrive at your conclusion, however, and want to utter it audibly, you release your head from your hand and its support, by raising it, before you begin to speak. The thought now being transferred to the body, the head does not require any further support. During thought the brain prevails over the body; during speech the body prevails over the brain. It is a simple shifting of poles. You cannot in fact continue to support your brain by your hand as before and give utterance to the words representing the idea arrived at.

During thought the brain is the positive factor and the body the negative; during speech the body is the positive factor and the brain the negative.

It is freely admitted that the separate parts forming the *visible* physical machinery constituting our body act in perfect accord and harmony with each other. It should be equally apparent that the separate parts forming the *invisible* machinery constituting our spiritual being, must also act in perfect accord and harmony, not only with each other, but also with every corresponding part constituting our physical being. Thus, while our spiritual machinery vitalizes our physical machinery or any special part thereof, our physical machinery is the means of vitalizing our spiritual machinery, or any separate part thereof, into life and action.

If this were not the case, and our entire spiritual

existence were confined to the brain and its action, it does not seem to me possible that all the various subtle phases of language could be vocally uttered so promptly and so harmoniously, and simultaneously, apparently, with the thoughts that give them birth.

Hence I maintain that speech, being the product of a harmonious fusion of spiritual and vital factors, is the direct product of specially vitalized parts of our psycho-physical machinery, called momentarily into action for the purpose of producing separate parts of speech, which in consequence of the harmonious fusion of *all* parts, enables us to produce audible, as well as printed or written language, which latter is vocal language materialized.

The different languages are the product of the different manners in which spiritual and material factors fuse, and in fusing predominate one over the other; either the spiritual over the material, or the material over the spiritual.

The brain being the organ in which all ends center, it gives the first impulse for thought production, but it is not by any means the only factor participating therein. Thought makes the impression of which speech is the expression, the impression, as before remarked, being thoughtful, the expression thoughtless.

It must be evident that the brain cannot directly participate in the tonal expression of a thought evoked by the utterance of a word. The vocal cords cannot express it; that fallacy has been utterly exploded. The entire mental and physical machinery is involved in the act, and I feel sure I cannot be far astray in the manner in which I have pointed out the modus operandi

in which this is accomplished. I know it to be true by a thousand experiments. To be sure, it is but a crude outline that I have given, but this outline offers a basis for further development.

Before closing this chapter I beg to add the following, which though not directly related to these matters, yet may be said to relate to them indirectly:

As the inverted image of an object reflected on the outer material surface of the retina of the eye is "righted" by the inner spiritual surface thereof, so is the evil, which is the reverse of the good, "righted" by the good. For, as the spiritual prevails over the material, so does the good prevail over the evil.

Should man ever be able to arrive at a perfect knowledge of his own being, physically, physiologically and psychologically (an end, however, which it does not seem to be in his composition to attain), he would thereby obtain a universal knowledge. By furthermore attaining an inner, or inverse view of the phenomena thus presented, he would arrive at the noumena thereof, and in so doing obtain a summary knowledge of their underlying causes, which knowledge, comprising all things, would be equal to the knowledge of "God." This, of course, is intended to express in a somewhat new form the old thought, that all the forces which enter into the composition of the universe enter into the composition of man, this microcosmic representation of the macrocosm.

SONG AND MOTION.

After showing in the preceding chapters that the realistic is the prevailing motive with Anglo-Saxons, while the idealistic is the prevailing motive with Germans, and that these motives are expressed by the stress put upon the respective words of these respective languages, I will now show the reason why singers, as a rule, are prevented from producing song with the same ease and naturalness as the spoken language.

These observations refer directly to the English and German languages. In how far the laws I have deduced from the same may affect other languages must for the present be left to future investigations.

When we speak of "real" and "ideal" it must be understood that these are expressions representing a cycle of dual, reciprocal or correlative courses of thought and expression. While the Anglo-Saxon is mainly rooted in the material, there is always a round of proceeding which leads him on to the ideal. While the German is mainly rooted in the ideal, this "round" again leads him on to the real. It may thus be readily understood how the point of gravitation with gifted Anglo-Saxons may be shifted from the prevailing realistic tendencies of their nation to idealistic propensities, and how with Germans it may be shifted from the prevailing ideal of their nation to more realistic propensities. When thus shifted it often reaches a higher order idealistically with Anglo-Saxons, and

an order of a lower grade with Germans, than is ordinarily the case, conversely, with either of these two nations.

This "round" of things is clearly defined in the respective languages of these respective nations.

While the noun, representing the principal motif, or the realistic in speech, is the prevailing one with Anglo-Saxons, the adjective, the adverb, and other parts of speech representing the descriptive or ideal parts thereof, which *define* the noun, are the prevailing motif with Germans.

I have pointed out how this fact affects the speech of these respective nations. Anglo-Saxon speech production being the exact reverse of German speech production, and vice versa, and song being the converse of speech, Anglo-Saxon song is the counterpart of German speech, and German song the counterpart of English speech. In this wise: In his "round" of thought an Anglo-Saxon thinks of the realistic, the noun, first, and in his speech puts the stress upon it. For song he does not first express this part of his round of thought, however, but he holds on to it subconsciously. He then first expresses the second, ideal part of this round of thought, after which he expresses that which had at first been withheld, the real. Hence, when producing song, an Anglo-Saxon must think of the idealistic, and the realistic will naturally follow in its wake; while a German must think of the realistic and the idealistic will naturally follow in its wake. This seeming perversion is the golden rule for song production of these nations. If properly carried out, song will be produced as naturally as speech; and this

is, in fact, the way in which gifted singers unconsciously produce song.

There are other motives of language, however, as the connecting and separating links, the interrogation, the command, etc., all based on the same converse order of things, and which also must be perfectly understood in connection with song production, if the same is to be uttered with absolute purity. Thus the general principles underlying vocal utterance cannot be properly established except by physiology and psychology joining hands, sustaining and assisting one another. Ideal, or psychological processes, are evolved independently by themselves; real, or physiological processes, on the other hand, are always accompanied by corresponding psychological ones. Mere thought is free; it can depart from a theme and again return to it; but when thought is to be uttered vocally, that is, physiologically, it must strictly adhere to its theme. Though there is a great deal more to be said, the observance of what I have already stated should go a good way towards leading singers into the right direction.

The construction of the sentence in these respective languages, if studied in connection with these observations, will prove to be largely influenced by the same.

In conjunction with the preceding it will be well to remember that though it may appear difficult to think of the succeeding before thinking of the preceding, Anglo-Saxons are doing this continually in their ordinary mode of expression; hence the slow process of their speech as against the more rapid of Germans.

I hope I have expressed myself with sufficient clearness to be perfectly understood.

It will be well for students to connect the preceding with what I have said regarding perception and conception, or what I consider to be of the same relative order, namely, the conscious and subconscious. The entire subject of vocal expression, being fundamentally an outcome of the mind, when well understood is accompanied by good, when ill understood, by evil results.

To force the voice is an evil practice always. When properly directed by thought it yields naturally and easily to every impulse; and practice will assist in developing it to ever higher standards. But woe to the singer who follows improper directions.

It will have been seen that the main difficulty with song production is that it is the converse of speech production. That it is in fact an amplification of speech which includes the inverse and the converse thereof. We hold on to the one until we have produced the other.

Let me explain this by an example. For English song production let us imagine that while going down a hill we are, as it were, holding on to a wheelbarrow which is in front of us; then, while retracing our steps backwards, we are pulling it up the hill again, while still holding on to its handles just as before; and finally, rushing down the hill, we are pushing our wheelbarrow before us. The holding the wheelbarrow back in the first instance, and then pulling it up in the second, is equal to holding the breath during the two first stages; the final running down the hill is

equal to the expiration and the song. It will be observed that the first stage is accompanied with the least, the second with more, and the last with most force; our imagination during all these proceedings being equal in effect to the actual facts; they are, however, as a matter of course, carried out much quicker in our mind than they could possibly be in reality.

For German song let us imagine that we are pushing a wheelbarrow up a hill, then holding it back while going down backward, and again pushing it up vigorously while running up the hill. Here again we hold on to our breath during the first two stages and expend this double inspiration during the last stage, and in so doing produce song. Here also the force is increased at every stage.

The English mode of proceeding represents at its first stage an expiration from the thorax and an inspiration into the abdomen, at its second an inspiration into the thorax, and at its last stage first an expiration from the thorax, followed by an expiration from the abdomen accompanied by song. The German mode of proceeding represents at its first stage an expiration from the abdomen and an inspiration into the thorax, at its second stage an inspiration into the abdomen, and at its last stage first an expiration from the abdomen, succeeded by an expiration from the thorax.

During this proceeding you may also notice the following: During the first stage for English song, while inspiring into the abdomen, you straighten out, leaning backwards; during the second stage, while inspiring into the thorax, you straighten out further

and take a still more backward position; at the third stage you lean forward while first expiring from the thorax, and lean forward still more while expiring from the abdomen.

During the first stage for German song you lean forward while inspiring into the thorax; at the second stage you lean still further forward while inspiring into the abdomen; at the third stage you straighten out while expiring from the abdomen, and then straighten out further while expiring from the thorax.

It will be noticed that the last stage for German song is an expiration from the thorax. This expiration for German song takes place from the anterior part of the oral cavity; while the last stage for English song, coming from the abdomen, takes place from the posterior part of the oral cavity. This accounts for the well-known fact that Germans feel the voice in the upper part of the chest, beneath the collarbone, while Anglo-Saxons feel it in the abdomen above the navel. Either of them can "stop" the voice at these parts by either mechanical pressure or making these parts rigid. But you can also stop the English voice between the shoulder blades, while you can stop the German at the small of the back, the English voice taking its course from the anterior part of the abdomen to the posterior of the chest, while the German takes its course from the posterior part of the abdomen to the anterior of the chest.

A very remarkable fact in connection with these studies is the following:

The first stage, all by itself, of the movements described as with a wheelbarrow, with either Germans

or Anglo-Saxons, is productive of *vocal sounds* only; the second stage in connection with the first of *speech*; the last stage in connection with the two preceding ones of *song*. That is to say, at these respective stages you can only produce vocal sounds, speech, or song, and nothing else besides.

Experiments, as with all my statements, will prove the correctness of this assertion.

All the preceding has reference to phenomena making their appearance in front of us.

If we, however, mentally relinquish the wheelbarrow, which is productive of force, and simply make the same movements in our mind without our wheelbarrow, and hence without the application of force, precisely the same phenomena will make their appearance at our back. These movements respectively productive of vocal sounds, vocal speech, and vocal song, will then produce simple sounds, simple speech, and simple song.

In all the former instances the pressure came from the back; in all the last ones from the front.

Regarding other nations in connection with these experiments, an Italian is in front of the wheelbarrow, instead of behind it. He is on level ground, and first pulls it after him forward; then, still holding on to its handles, he walks backward, and finally, with a rush, forward, producing first vocal sounds, then speech, and finally song.

A Frenchman is also on level ground, and first pushes his wheelbarrow backward, then forward beyond the point from which he started, and finally backward again. All these various movements require

various modes of breathing for the production of the same mode of expression in various tongues.

The English and German languages, while radically opposed to each other, are on the same plane, representing as they do the two opposite phases of the same "round" of proceedings. What other languages may be of an opposite order, representing other planes, I am not ready to say, though I venture to say that of romance languages the Spanish and the French, respectively, represent on a plane of their own what the German and English do on their plane. I do not make this an assertion, however; it is simply an impression.

For other tongues there may be various other movements to either the right or the left, forward and backward, higher and lower, etc. And there are such movements representative and productive of all the various languages; for it is motion always, and motion only, in connection with a relative mode of breathing, that is productive of vocal utterance, though such motion may never be visible or felt. A person, while having these movements in his mind, can produce pure song in all these various languages.

EMPIRICISM VS. SCIENCE.

To show the narrowness of such studies as those Mr. Lunn has devoted himself to, I beg to call attention to the following bit of empiricism, as against my studies, which are based on scientific principles. Apropos of the buzzing "b" sound mentioned on page

256 of this volume, I beg to state that this sound is made by a German by compressing his cheeks instead of inflating them, as with an Anglo-Saxon. He first draws them in and then inflates them, while an Anglo-Saxon first inflates them and then draws them in. A Frenchman inflates his lips and not his cheeks; an Italian produces this sound by exhausting the air from the bottom of the mouth. Thus every nation produces vocal sounds in a different manner from every other nation. Yet Mr. Lunn presents this ex parte observation of his, made from his (English) standpoint, as a truth of universal application. A vocal teacher in Leipzig, who has a sign before his house on which he announces himself as a "teacher of teachers," and who had studied Mr. Lunn, produced this buzzing "b" sound for me as a proof of his erudition in vocal science. It was about all he had to show in this line. Of course he produced it in the German fashion, but never knew the difference.

Here is the main trouble in connection with the science of vocal utterance, that every observer presents his experience as of universal application, while as a matter of fact vocal sound production with every nation is of a different order.

Let me also remark that besides the "b" sound, every consonant, and for that also every vowel sound, can be made in a similar manner; the "p" sound, for instance, being made in the precisely opposite manner to the "b" sound. An Anglo-Saxon makes this sound by completely drawing in his cheeks; a German by completely blowing them out; a Frenchman by com-

pletely drawing in his lips; an Italian by exhausting the air from the roof of the mouth.

To prove that such sound has been produced correctly, utter it vocally, or a word in connection with it, immediately after producing it. Unless you can do so you are on the wrong track. You can, f. i., after producing this buzzing "b" sound in the English fashion, utter the word "Bible"; in the German fashion the word "Buch." In thus uttering these words you will notice that you produce them in the singing voice, and that you cannot utter them in the speaking voice.

Hence such utterances as that of the buzzing "b" sound may be regarded as the basic mode of song production. The actual process by which this is done is, while continuing to hold on to the sound, to reverse the vocal organs, and in so doing amplifying or reinforcing the voice. Thus after producing this buzzing "b" sound you will involuntarily draw the air in again which during its production had been blown out. While thus drawing the breath in you may utter the vocal "b" sound of the singing voice, provided, of course, you will to do so; or, if you are a German, you will blow the air out which during the production had been drawn in.

This shows, as before stated, that singing is a process produced by a reinforcement of the speaking voice. This process is carried on by every nation in its own idiomatic mode of sound production. What would Mr. Lunn not have given for some one to have told him that by his observation he was on the very threshold of knowledge! He could not

know that, however, from his ex parte English standpoint.

Another thing: After producing such buzzing "b" or any other sound of that class, in any language, such sound can be uttered phonetically, provided you do not let any time whatever elapse between its utterance and that of the corresponding phonetic sound. A phonetic sound produced in this manner is the "simple" sound to the reinforced, or singing voice.

By reversing this sound again, that is, reducing it to a still simpler basis, we arrive at the simple sound of the speaking voice. This is the simplest sound imaginable, and from its standpoint, which I arrived at during my efforts at producing the idiomatic expression of the English language, I am indebted to all my observations.

Regarding the "buzzing b" and that entire class of sounds, for which a name must yet be invented, they evidently occupy a position midway between the "simple" sound of the speaking and the "vocal" sound of the singing voice.

To illustrate this, imagine for a moment that you had suddenly become frightened and exclaimed "a!" This "a" is a "simple" sound of the *speaking* voice. When this fright, however, is suddenly changed into joy (at recognizing, for instance, that the intruder is a friend) the "ah!" you then utter is the simple sound of the *singing* voice, it being produced by a reversion and amplification of the former. When you are frightened your entire system shrinks and the entire vocal apparatus is reduced to narrowed proportions, which joy opens again and amplifies.

Why are these sounds of such importance? The true basis to any science is simplicity. We must advance from simplicity to complexity, from simple to vocal sounds. To be able to arrive at simplicity we must first use the analytic and then the synthetic course of proceeding. We start from the phenomenon, the vocal sound, and after reducing it to the noumenon, the simple sound, we again arrive at the phenomenon, the vocal sound. After arriving at the thing itself by decomposition, we again arrive at what it presents to our ear by reconstruction. A phenomenon is the crystallization, so to say, of various elements into a given form. To arrive at the true nature of a phenomenon we must reduce it to these elements. I have attempted to do this in connection with vocal sounds, the syllable and the word.

In a similar order we can advance from a thorough knowledge of sound production in our own language to that of other tongues. To attempt to sing in foreign tongues without previously possessing some knowledge regarding sound production in your own tongue, is attempting something that cannot properly be done. A person once able to properly express himself in his mother tongue, will soon be able to guide his voice into the proper channels for other tongues, after obtaining, if but in a general way, some knowledge of the spirit underlying the same.

To recapitulate: The simple sound of the singing voice is converted into the simple sound of the speaking voice by reversing its mode of production. F. i., after producing the buzzing "b" sound you can by a reversion of the vocal organs reduce it to the simple

sound of the singing voice; by again reversing the latter's mode of production you can arrive at the simple sound of the speaking voice. At any rate, it is here clearly shown that the singing voice is but a reverse and at the same time amplified order of sound production to that of the speaking voice.

While simple sounds cannot be used for the production of vocal speech or song, they can be used for "simple" speech and song, being the outcome of but one hemisphere. Yet it is from this mode of speaking and singing that so much can be learned in regard to the laws governing speech and song.

There are two "specifics" the "profession" applies more than any others for "opening the mouth" and "clearing the voice," as the phrases go; the one is the so-called "stroke of the glottis" and the other the production of the "ah" sound. These two usages, which have been found valuable in some instances, are based on experience, but neither has ever been reduced to a scientific basis.

Regarding the stroke or "shock of the glottis," it is evident that by its application, which produces the momentary closing of the glottis, the hemisphere of the thorax has been placed out of action (hors du combat), thus giving it an opportunity to settle, as a public speaker or minister sits down for the purpose of "collecting" his thoughts before beginning to speak. During the brief period of the application of the "stroke," and while thinking of the pure "a" sound, the sound-producing elements thus have time to "settle"; the influences of the hemisphere of the abdomen being excluded from mingling with those of the

thorax. Every disturbing influence thus being excluded, the "a" sound, which had been thought of, can be produced in a clear and pure manner.

In applying that class of sounds described as the "buzzing b" sound for "tuning the instrument of the voice," the consonant "b" does about the same thing that the vowel "a" does under those other circumstances. Hence these two processes, of the vowel "a" and the consonant "b" sound, can also be used in combination; say first the "a" in combination with the "shock," and then the buzzing b sound; first the spiritual and then the material. They should be experimented upon. I desire these matters, in fact, to be looked upon as "suggestions" for experimentation.

I beg to add one important matter to all of the preceding, namely, that the mere thought of a vocal sound, either vowel or consonant, for experiments answers the same purpose as the vocal utterance of the same.

At the peril of repeating myself I must still add the following, which I copy from a paper written apart of and previous to the foregoing:

In place of using the eternal "ah" sound or the "stroke of the glottis," which are so much made of, let singers use this buzzing "b" sound as a basis, and after uttering, or merely thinking it, they will have an unequaled base for pure intonation. What is the reason?

The basis of vocal utterance is *simplicity*; it must start from a beginning; this beginning is a simple or elementary sound, a spiritual element. When it starts from a complexity, a "vocal" sound, even the much-

vaunted "ah," it may have and usually has an element admixed with it which is not pure. The simple sound, though in itself valueless for vocal utterance, being always pure, leads up to the purity of *vocal* utterance, not only in speech, but more especially also in song.

Had Mr. Lunn comprehended this, which of course he could not from his standpoint, he would have given something to the world of real value in its practical application to the art of singing. When a celebrated London teacher, on whom I had called, came into the room singing "ah! ah!" meanwhile looking triumphantly at me, I thought he was demented, not knowing at the time that this was the only sesame the profession possessed "to open the mouth" preparatory to emitting pure sounds.

The profession did not then and does not now know that this so-called "opening" of the mouth is "tuning" a person from a condition of "speech utterance" to one of "song utterance," from the outer to the inner, the material to the spiritual.





DISCOVERY OF A "NEW" VOWEL SOUND.

VOCAL sounds are curious, almost uncanny things. At first sight they appear to be of the simplest character, innocent of any capacity in themselves beyond that of being productive of special sounds. And thus they are simple and innocent as long as they remain by themselves. The moment, however, they are allied to other sounds, married, so to say, to sounds of the opposite sex, vowel to consonant and consonant to vowel, their union becomes fruitful of the most extraordinary progeny. It produces words representing everything living and dead, good and bad, high and low, every thought and action, all there is and ever has been under and beyond the sun.

The action thus taking place is an extraordinary phenomenon and a study of the most profound nature.

On a broad basis we distinguish as between vowel and consonant sounds. Of these the former represent the soul, the latter the body of their union into the word. The word when joined to other words represents thought in the form of language, written or uttered aloud. The latter, denominated speech, is the main theme of my investigations.

As all know, there are five basic vowel sounds:

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a, e. i, o, u, as pronounced in the *Italian* manner, and very nearly so also in the German and other continental European languages. Though pronounced differently in English, their Italian pronunciation is also the *basic* element for their English mode of utterance.

This is a matter of importance not heretofore sufficiently accentuated.

The human body is a musical instrument which, though anatomically constructed the same with all men, is spiritually "tuned" in a special manner for each separate language. The keynote best suited to the instrument, as such, seems to be the mode of expression of the Italian vowel sounds; the expression of consonants in all languages shaping itself automatically to that of the vowel sounds, in the same manner as the national body does to the national language, or soul, which inhabits it.

Hence vocal instruction for all languages should be based upon the true expression of the Italian vowel sounds.

The truth of this assertion appears more clearly in song than in speech, more time being allowed in the latter for the full development of the true nature of the expression. I am speaking of the pure vowel sounds, the diphthongs being a combination of two or more pure vowel sounds, though not always of such vowel sounds as are usually used in the written language. You will find that you will be unable to utter the Italian "a" in connection with the consonants "nd" when you want to denote thereby what the English word "and" stands for. Your Italian "a"

in that case will nolens volens merge into the "English a."

You may try the same with the word "kind," f. i., and you will find that when you attempt to utter its vowel sound in the Italian fashion it will not be possible to do so, but that it will involuntarily merge into the English "i" sound. These attempts should be made by thinking, not uttering, the Italian sounds. The French "u" comes under the same heading. It is well therefore to always first "think" of the pure Italian sound, as it will be involuntarily changed into the correct English sound.

These few examples must suffice for the present in the illustration of this all-important rule, viz., that the basic sounds for all languages are as Italians pronounce them. The vowel "a" is the pivotal sound for most languages except the English, the one from which all the rest, both vowel and consonant sounds, emerge. That is to say, we can, after thinking of the pure "a" sound, utter any other vocal sound without any change in our vocal organs. This is the reason why there is so much made of this sound as a means to "clear the channels of expression." Still better, however, is the short or obscure "a" for this purpose, the clear "a" in reality being an outcome of the latter. Take, f. i., the "a" in the German word "Abend" as an example of the clear, and the "a" in the word "glatt" as an example of the obscure "a," and you will find that you can evolve the former out of the latter very easily, and so you can the rest of the vowel sounds.

The English language, however, forms an excep-

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tion to this rule. In place of the English vowel sounds emerging from "a" they merge into it. (Hence the much-vaunted "a" or "ah" is not of that merit which is usually claimed for it.) That is to say, an Anglo-Saxon cannot utter the other vowel sounds without a change in the vocal organs, immediately after thinking of or uttering the English "a" sound, but he can utter the "a" sound immediately after uttering any of the other vowel sounds as an "outcome" thereof, and without undergoing such a change. This fact, that the rest of the vowel sounds emerge from "a" in all the languages (known to me) except the English, in which latter the other vowels merge into it, convinced me that there must be a vowel sound from which the other vowel sounds emerge in the English, and into which they merge in other languages. It was something on the order of Le Verrier's observations regarding the aberrations of the planet Uranus, on the strength of which he calculated the position of the planet "Neptune" and it was found in that very place. The comparison may appear preposterous, and so it is, taking the immense amount of labor in the other case into consideration. Yet the result of my work, though comparatively easy, may in a manner take equal rank, when its influence upon vocal utterance will have been realized.

This "new planet" is the well-known vowel sound, represented by the letter "o" in such words as god, odd, for, nor, hot, lord, lot, loss, got, rob, rock, rod, romp, sob, sock, etc.

This sound is as pure a vowel sound as any of the rest, and should take equal rank with the "a" sound.

It is not a composite nor the "short" sound of any other, but its utterance is independent of any other vowel, it being a pure, basic, elementary sound, not related to any other.

I shall designate this sound with the sign ①, which seems to me an easy way of distinguishing it from "o" and the other vowels, but shall not in the least object to any other sign that may be deemed more appropriate.

This sound is represented in the German language in such words as: Born, Doctor, Docht, Dogma, Dolch, Donner, doppel, dort, Folter, fort, Gold, Gott, Hopfen, Horn, Hort, von, etc. In the French language by bon, botte, compte, comte, etc. In fact, in most of the words in which it is succeeded by "n." I shall not continue this exposition of the French, however, as my task is a comparative study as between the English and German, and not between any other languages. It will be easy for any one to trace this sound in all the languages he may be familiar with.

The vowels therefore should hereafter be represented by six sounds in place of five, as heretofore, namely, a, O, e, i, o, u.

There is a great deal more remaining to be said regarding "a" and "O" as "initial" and "final" as in German, and as "final" and "initial" as in English, and as in a general sense "dominating" these respective languages. Any one acquainted with the English language will soon recognize the fact that the O is the dominating sound in that language, so much so that in a sense it "carries the word"; that is to say, it can be thought of continuously while speak-

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ing or singing in the English language. The same may be said of "a" in connection with the German language. This fact is of especial importance as an aid to the proper idiomatic expression. While the O may be subconsciously with you while singing or speaking English, and be a help to you, the "a" will be a constant disturbance. With Germans the precise opposite facts obtain. People will have to learn how to utter this sound clearly by itself. It will take some little time to do so, as it has heretofore always been considered as a version of the "o" sound, and has been used in conjunction with other (consonant) sounds, and never by itself.

As all the rest of the colors emerge from white and merge into black, so all sounds emerge from "a" and merge into "O." This is the German version of the case, but not the English. In the latter language and for the latter people all sounds emerge from "O" and merge into "a." While the "a" sound, consequently, is the most important sound for the German language, the "O" sound is the most important for the English language.

In saying, as I did just now, that all colors emerge from white and "merge into black," I do not know how far science may sustain me in this last assertion; in a metaphorical sense, however, it is undoubtedly correct; for as the colors *emerge* from the light of the morning, so they *merge* into the dark of the night.

I have expressed this latter idea in "Duality of Voice," pages 165 and 171, in regard to the characteristic traits of the German and Anglo-Saxon races. When in my German mood, in my imagination the

colors emanate from white and merge into black; when in my English mood the reverse takes place.

I am reasonably sure of being correct in stating that "a" and "O" have the same respective influence on the French language that they have on the English, showing a closer psychological relationship of French to English than of German to English.

In connection with the preceding I would, for the purpose of "clearing the channels of expression" for the English language, recommend the use of the syllable "nor," (nor) which will be found far more effective than "ah." This syllable may be either uttered or simply thought of. For the German language I recommend the use of the syllable "matt." In both these syllables the most essential sounds, both vowel and consonant, in these respective languages are represented. These syllables will aid the singer, when they are continuously thought of subconsciously, during exercises in singing or speaking.

ADVANCED KNOWLEDGE.

I was, in the beginning, asked by persons interested in vocal utterance what in all the world I could possibly have so much to say about it, and why I had not devoted myself to that theme alone. That would simply have been impossible. The task that has been allotted to me is so vast, so all-embracing, that no one thing stands by itself alone. After all that has been said, and that I shall be able to say during the short span of life still allotted to me, it should not be diffi-

cult for others to extract from the same a manual for the guidance of singers and elocutionists.

Man being an entity, he must be viewed as such, for anything profitable to be evolved from a study of his nature. The act of dissecting him and viewing him in parts will never solve the mystery, as no one part will tell on or of another, each preserving its own secret.

I have not established any new "method," but I have established principles upon which correct methods can be established, while heretofore numberless methods were originated without any correct underlying principles at all.

The human, and more particularly the Anglo-Saxon, mind, is a vessel which, though solidly built materially, that is in the recognition of material things, is without a well-defined spiritual rudder. Hence its sails are fluttering in the breeze among hundreds of doctrines and creeds, not only religiously, but in many other respects as well.

In vocal utterance it has developed the larynx to an endless number of cults, which, as none are based upon scientific truths, have but served to obscure the mind and to pervert the natural faculty.

When we think of the instrument of the voice we generally have in mind the lungs as a reservoir of air, the larynx, with its vocal cords, as the instrument proper, and the upper part of the oral cavity as the resonance chamber of the sounds produced by the action of the exhaled air upon the vocal cords.

These parts form but a comparatively small part of the human body. When we think of a musical instru-

ment, on the other hand, we consider every part of that instrument as essential to the production of music from the same. We must thus also view the entire human body as forming the instrument productive of vocal utterance. Various parts, or vessels, may be looked upon as separate instruments which, acting together, are productive of that great orchestral performance denominated "vocal utterance" in all its various phases. Vocal utterance may be extracted from the instrument of the human body in the shape of speech, rhetoric or song, with a true knowledge of the causes productive of the same. Comprehending these causes will enable us to overcome obstacles in the way of a superior, if not perfect production of these various efforts.

What would I be without the power of thought and speech? A nonentity, a meaningless thing. They make me what I am. They are the outcome of my *entire* individuality, not of the brain alone and the vocal cords.

Every man, no matter what race or nation he may belong to, is naturally gifted with the production of vocal utterance; though in some isolated instances there may be obstacles in the way of its *proper* performance.

If all were not gifted with a spiritual influence in correspondence with a material one, how could the physiologico-psychological miracle in a child commencing to speak ever take place, and in all children alike?

All may perfect this gift in proportion to the extent that they are gifted. Yet as in our republic laws may be democratic, and on general principles apply to all alike, the laws of nature and the agencies instrumental in executing them follow "aristocratic" lines and principles. The cosmos in its tendencies is not a democracy, but an aristocracy. It is built on ascending lines, towards which, however, all may "aspire"; ever onward, ever higher.

That our spirit in vocal utterance in its various phases and aspects is intimately connected with every part of the body, I have already shown; various parts of the spirit being assigned to various parts of the body somewhat on the same order that phrenologists have assigned such parts to the brain. That which has been theoretical with the latter, regarding the brain, I have positively ascertained regarding various parts of the body. These parts of the body and their spiritual properties correspond with parts of the brain as their complementary factors; such correspondence being established through the medium of the lymphatic, circulatory and nervous systems.

The lymphatic system is the tone-producing part of the great instrument of the voice—the circulatory of the emotions. Between these two the sympathetic nervous system mediates and unites them into one stream of soulful utterance. Upon closely listening you can hear the emotions trembling along the ordinarily limpid tones of the voice, mingling with them, but never uniting with them as in one and the same fluidum.

Singers will do well to bear this trinity constantly in mind. The tone flowing through the channels of the lymphatic, the emotions trembling along those of the circulatory system, and the sympathetic nerves, carrying the one from and to the other until they mingle together in unison and as in one stream.

In intimate connection with the anatomy of the

body we are the possessors of a "spiritual anatomy," which is inwoven and interwoven with the former throughout our entire system. In this manner the exercise of our faculties is ever the outcome of spiritual-material forces.

This is what is called "advanced knowledge"; yet it is but the dawn of knowledge regarding ourselves. I feel sorry for that which is in the arrear. I know full well that my knowledge before long will be in the arrear in comparison with that which will grow out of it. I feel as Johannes must have felt, who, while baptizing the Christ, was kneeling before him. I thus feel regarding the greater knowledge of the future before which I am already now bending my knee.

I do not claim that what I have stated is perfect. I have been overwhelmed with this knowledge.

Nor has it come to me all at one time. By no means. It has been evolved slowly, gradually and laboriously. Hence much of what had at one time been looked upon as perfect in its way has been supplemented by additional light. Not being able to write it all over again from my present standpoint I have had to let much of it remain as at first written.

I am still praying for help, assistance and guidance. Others must come to the rescue. The universities must take up this work. If this generation will not do it, the next assuredly will.



APPENDIX

MUSICIANS.

I F editors are unwilling, why do not singers, teachers, and the public at large come to my aid? Musical journals fight shy of these matters. They dare not discredit what has for so long been, and is to this day, held to be the basis of vocal teaching. But the profession is no wise to blame for having worked along lines which science has heretofore upheld as true and unquestionably correct.

These studies will eventually not only place the subject of vocal utterance, but will place the entire subject of our human existence upon a higher plane. They comprise the underlying thought upon which a religion of humanity in which all men can join may eventually be built.

It does not speak well for the intelligence of musicians that they should be willing to continue hammering away at the hard and unimpressionable material the scientists have supplied them with after higher laws have been offered to their consideration, but they let this higher and *true* knowledge go by default and continue to waste their time and that of their pupils on base and worthless issues.

I do not, of course, expect anything to be accepted

on faith. But when a science is in such deplorable straits as that of vocal utterance it would seem the duty of those interested to at least *investigate* matters offered them, which bear so greatly the impress of the truth.

It is a fatal error on the part of vocal teachers to look to physiologists for aid in their vocation. It is impossible for physiologists to explain the process of vocal utterance by such methods as they employ, which embrace but what can be learned through the senses, vocal utterance being a process of the mind directing the action of the body by subtle means, unknown, and, in conformity with its present methods, unknowable to science. Hence all this sickening error. Musicians must teach physiologists, not vice versa. They have, or at least should have, the insight, not these. That Balaam's ass should have actually spoken does not seem near as improbable as that our modern scientists should be able to do so by the simple aid of the vocal cords and the expired air. He at least was fitted out by nature as a "perfect" ass, possessing every faculty of such a being. To be able to speak by the aid of such things, however, as those gentlemen claim to do, is a miracle far in advance of Balaam's experience.

Musical journals and many teachers, though all desirous of the truth, never dreamt that when it came it would assume so imposing an appearance. They had dreamt of it in a mild form, as a recipe they could easily take; not as a cure requiring months, nay, years. Hence they stand aghast and shrink from approaching it.

The reasons cited by musicians for their seeming

indifference are that a pioneer is but too often a victim. Advanced ideas must come to the front slowly; they cannot be promulgated by the actual worker whose professional career is at stake, and which might be jeopardized thereby.

Who can blame them? No one, if their arguments were right; if they already had some kind of a basis to stand upon. But they confess that they have not; that they are working in the dark. What then is there to jeopardize where there is nothing to lose? Will they risk anything by improving their method? Will not their scholars soon realize the advantage and be thankful therefor? I venture to make the remark that all who enjoy a reputation to-day will have to come around to the study of these vital principles, if they want to retain their position and the prestige which surrounds it at the present time. It being too great a study for pupils of the ordinary kind, the teacher who has grasped the subject will be "master" more than ever. Nor will it be given to everybody to fully grasp it. There will always be graduations in its comprehension and grades in the mode of applying it for the purposes of teaching.

Musicians, as a rule, still hug the larynx to their hearts and sing themselves hoarse by singing in a wrong direction. In the direction of a narrow physical sidetrack, in place of that of the broad roadway of the eternal soul. It is true a good many are using my book clandestinely, but that is wrong, as my work is not yet fully developed. What is needed at present is discussion and further development, for the purpose of arriving at well-defined modes of instruction.

Why should musicians not exchange their poverty for my riches? Why not assist in raising their vocation from a mere mechanical endeavor to a science and an art? A science of a high order, whose aim is to explain the process by which the spirit enables the body, or vice versa, to translate the *thought* into the *living word*.

The knowledge of the "voice" as such, even when understood, will be but a beggarly substitute for what the voice in a wider sense really stands for. They prefer travelling thousands of miles at an expense of thousands of dollars to seek information from teachers who have not any to offer, to sitting quietly down to the study of such a book as "Duality of Voice," which would do them a vast deal more good.

Had I been the inventor of some patent medicine for the "vocal cords," no matter how worthless, thousands of bottles would have been sold at a price equal to that of my book and with scarcely an effort on my part. Bitter irony of human endeavor to discard the truth and obstinately cling to fatal error.

While so-called "great teachers" are reaping golden harvests, the "truth" is begging hard to be heard simply for its own sake. No compensation is asked and none expected.

The other day, while feeling somewhat despondent, methought I overheard a conversation something like the following:

The Voice, in a beggarly attire and attitude: Will not some kind person help a starving soul? Haunted, persecuted, maltreated by a thousand insane issues, I do not know where to find refuge.

The Author: I will help you, good soul. I know you are a gentlewoman, come down to these rags, muscles, vocal cords and the foul expired air, through ignorance and the materiality of the age.

The Voice: But they won't let you. I have been captured by freebooters, who have robbed me of my freedom, to coin me into money. They sometimes exhibit me as an anatomical model of the larynx, like a freak in a dime museum, or keep me incarcerated, as in a lunatic asylum, by using language about me no sane person can understand and none has ever been able to profit by. Instead of helping me they are killing me through torture, inch by inch.

The Author: Yet in rare instances you still live in the full glory of your heavenly mission. Hence the conditions for proper voice production still exist; but the insight is wanting to the teacher. In discovering the voice of the œsophagus I obtained the knowledge of the duality of your nature. Ever since that time I have endeavored to free you from your thraldom, but the world of to-day is governed by material issues, and it seems difficult for it to comprehend what is of the soul and eternal.

The Voice: Oh, do not despair. Thousands of years have I passed in my misery. I have been tortured, not only in the singer, but in the abuse I have suffered by men in their speech. But it is in the singer I have most suffered, for he should be my greatest jewel. I have seen men burnt at the stake for possessing a higher insight than their tormentors; yet their misery was shortlived, their bodies being of the earth. But I am eternal, and though every effort

has been made to kill me by those who have attempted to coin me into money, and by others who have candidly believed in false doctrines, I have outlived every torture. For you must know, poor and destitute as I am to-day, I am the daughter of the spirit of light, the sister of thought and knowledge, the creator of civilization and progress, the inspirer of love, joy and good tidings and of all that is high and holy among men.

It is through a knowledge of my true character, such as you seem to possess, that men will attain an insight into their own nature and of their own mission on earth, for I am the living representative of their soul.

I have lived millions of years before man developed into a semblance of what he is to-day, and I shall continue to live in higher beings who will succeed him, after every vestige of the man of to-day shall have vanished from the earth. Cheer up and write, for you have the true insight.

"DUALITY OF VOICE" AND JOURNALISM.

I feel constrained to speak at some length upon the mode of vocal teaching now in vogue in comparison with that by which I am attempting to replace it, and must necessarily, though reluctantly, enter somewhat into personal matters connected therewith. This seems to be necessary in view of the fact that my studies have been suppressed rather than furthered by musical and scientific journals in this country. There is naturally a fear that upon becoming known they may upset much of what has heretofore been looked upon as science and will shake the public faith in the value of vocal and other teaching as heretofore carried on. Thus the calamity of false teaching is going on in spite of the truth having been proclaimed, to the detriment, yea, often destruction, of natural gifts and the health and fortune of their possessors.

When the movement to which I have given the first impulse will have attained its full velocity, it will stir up the world as it has never been before, as the defense, from a strictly scientific standpoint, of the spiritual in man's nature as against the material, and an exposition of the fact that, while they are correlated during life, the most masterful, spiritual, survives the material.

While thus this movement, in the future, will be acknowledged to be of the first importance, the principles underlying it are of immediate and vital importance to that expression of spirituality known as vocal art. There is no denying the fact that it has already made its presence felt, and that it has stirred up the musical world to its very depths wherever it has become known. On the other hand, I am sorry to state that the self-constituted exponents of this art, the editors of musical journals in this country, have as yet abstained from noticing my work for fear of offending their clients, the music teachers, most of whom, ignorant of my teachings, still adhere to the old systems. I must give editors of musical journals credit, however, for having, in consequence of my

publications, abandoned as obsolete the advocacy of theories connected with the supposed physical instrument of the voice with which their journals, formerly, had been filled. While they have thus tacitly acknowledged the correctness of my statements, they have not as yet found it expedient to publicly support them, or to even thus notice them.

When I first offered the manuscript of "Duality of Voice" to an English publisher he returned it to me, saying: "No matter how true all this may be, how weighty and important, the English people are 'hidebound'; they stick to their traditions, and it is difficult to move them into any new direction. With you it is different; yours is a new country, everything there is fresh, and the people are open to new convictions," etc. "You will also find," he said, "that after you have published your work everybody will try to rob you of its benefits." That was his narrow business point of view.

That night, when I returned to my quarters over-looking Trafalgar Square, amid the thundering noise of a thousand carriages rolling along its pavement, I said to myself, "How can I ever raise my voice sufficiently to be heard above this tumult, which represents the tumult of the world, the false doctrine, the material interests dominating every issue, the ignorance and the prejudice of the multitude?" And see, the very people among whom I then was, and who had been derided, were the first to listen to me, while my countrymen, who had been praised, stood aloof, fearing to jeopardize their interests.

Most of the English musical journals, after receiv-

ing a copy of "Duality of Voice," published a review of it, some at great length, very cordial and sympathetic.

My experience is the same as that of a host of others who have labored for something beyond the ordinary comprehension and compensation of the hour. Yet I do not want to pose as a martyr; it would be absurd. Personally I have not suffered beyond disappointment in matters which, perhaps, I had no right to expect to be clearly understood during the decade of years which have elapsed since I first brought them to the public notice. My life meantime has been illumined by this knowledge, and I know the hour will come when it will illumine the world. It may not come before this soul and body have taken flight in opposite directions, but it will come. I only mourn over the fact that my endeavors have as yet been so little understood, and that in consequence the suffering I attempted to alleviate should continue unabated almost as before.

Lest those not acquainted with my work should think I am assuming too much, I beg to submit the following extract from an article in the London "Musical Opinion," of September, 1900, on "Duality of Voice": "The book is not one to be trampled upon in controversy; the earnestness of the man who wrote it forbids that; there is nothing self-vaunting in it. He does not say, 'Stand by, I am wiser than thou.' He believes in himself as one chosen to reveal."

For the sake of acquainting those perhaps not "au fait" with the status of what is called the science of the voice, as viewed up to this time, I beg to submit

some extracts from a journal specially devoted to that science. Volumes might be filled with such writings for the delectation of future generations. I shall confine myself to a single number of a single magazine, viz., the October, 1899, number of "Werner's Magazine," which I have before me, that number alone furnishing sufficient material for all these purposes.

On page 102 you can read the following: "The physiology of speech is perfectly understood, and we know exactly what takes place during the speech act, when speech is normal. Voice is primarily sound, and as such belongs to the department of acoustics in physics. . . The action of the voice-apparatus has long been logically proven to come under the laws governing all other sounds. We even class the voice as an instrument and exact from it the same obedience to the laws governing its kind that we do of instruments of man's construction. Scientific investigations (dissection and the use of the laryngoscope) have simply verified our conclusions," etc.

The author of the article of which the above is an excerpt is a teacher for the cure of stuttering. Is it possible that those entrusted to the care of a man standing on such ground can gain anything from his teaching?

To this article the editor of "Werner's Magazine," on page 107 of the same number, replies as follows: "Do we know positively whether in normal speech the thyroid cartilage draws up the cricoid cartilage or whether the cricoid cartilage pulls down the thyroid cartilage? Do we accept or do we reject the false-cord theory of Charles Lunn? Can we state definitely

just what sounds are made by outcoming air, and what sounds are made by ingoing air; what sounds are made by air from lungs, what sounds with air from stomach, and what are the sounds that get no further than the back part of the pharynx? These are only a few of the many perplexing questions confronting the vocal scientist," etc.

Again he says, "The voice is not an instrument merely, but is at the same time an instrument plus the player of the instrument. It demands much more than an instrument of man's construction. We should tell the stutterer not to bother himself with 'how' the agents—nerve, cartilage, muscle, entire organs—move to perform their functions, but to concentrate himself on the thought he wishes to express and then 'will' to speak, not by forcing organs, but by letting them take care of themselves."

I call attention to the lines in italics, and want to ask whether Mr. Werner, who for twenty-four years has devoted himself to the science of the voice as a writer, and publisher of a magazine, specially devoted to that purpose, would, or even could, have expressed himself as here indicated previous to the appearance of my books? Mr. Werner has been from the beginning deeply interested in them, yet he has not dared to allude to them in his magazine except in this clandestine manner. Being the publisher of a number of works in connection with the old system, he no doubt feels shy of bringing the new to the front. When Mr. Werner published my first book, "The Basic Law of Vocal Utterance," he made a brave fight for the same. The only time he ever alluded to my work since (and there

were special reasons for his doing so at this time) was in the June number of "Werner's Magazine," when he said: "'How long, oh, how long,' cries Mr. Sutro, 'will vocal teachers persist in clinging to error, masquerading as vocal science, chaperoned by tradition, even the respectable and venerable tradition of the "old Italian school"?"

"If Mr. Sutro's theory of vocal air use be correct and a vocal method be based upon it, many of the problems that have so long baffled the vocal profession will be solved. Vocal instruction will lose many of its delays and dangers and an epoch of increased artistic voice-users will be inaugurated. If such a condition shall be effected much credit will be due Mr. Emil Sutro for having so long, so patiently and courageously fought the battle for vocal enlightenment and emancipation."

But to return to the October number of "Werner's Magazine," on page 110 you can read the following: "A beautiful illustration of good production is found by blowing out the cheeks and putting vocal tone through them. What the compressed air in the blown out cheeks when sounding the buzzed sustained consonant b, is to our vocal tone, associated with lip resistance, that the compressed air in the blown out ventricles is to the invisible artistic voice. In brief, the point of resistance of the old school is suppressed escape at false cords with voice added to it, and this physical equilibrium—the hydrostatics of voice—has its mental equivalent, a perfect physically unfelt control. The superior laryngeal nerve acts upon the cricothyroid muscle and the inferior constrictor muscle.

The crico-thyroid muscle pulls together the thyroid and cricoid cartilages, both ascending, and the effect of this action is to tighten the vocal cords and consequently to raise the pitch. This intrinsic muscle owes its action to a nerve-energy directed downward through the superior laryngeal nerve. Thus much for direction of Will or thinking downward against the initial automatic upward pressure."

This is by Mr. Charles Lunn, the learned author of "Philosophy of Voice," who has established a new school on a theory connected with the "false cords," and is actually giving singing lessons on this theory as a basis. Why not base a theory on the nostrils, the eyelids, or the eardrums, which at least vibrate in sympathy with vocal sounds? It would have been far better. But supposing all Mr. Lunn asserts to be true, in what manner would that assist the student of vocal utterance?

Mr. Lunn is a shining light of the realistic school, though not quite as much of a materialist as some others, being really a person of greater intelligence and originality of thought than many others who have written on the voice.

I shall not trouble the reader with any more such comico-tragic disquisitions; comic in seriously treating a subject devoid of sense, tragic in its sad consequences to the singer. Such erudition in its barbarous splendor resembles that of the Roman Catholic Church in the use of the Latin, and the Jewish in that of the Hebrew tongue, to impress, but not to be understood by, the vast majority of their parishioners; the learning of the Roman augurs, in the state and position of

the entrails of the sacrificial victims, denoting the divine will; the wisdom of the astrologer interpreting the influence of the stars upon the destiny of men; a syllabus of contention against common sense by the Pope, etc.

It will be seen further from the above there is an "old school" and a "new school" even in this science of the larynx, making confusion worse confounded. Mr. Charles Lunn, the high priest of the "new school," has done me the honor of reviewing "Duality of Voice" in two numbers of London "Music." His "new school" and my "new school" have very little in common. His "new school," together with the old, will never be missed. They are the mere semblance of a thing, a shadow, which, in lieu of something real, was seized upon as a substance and used for a basis to a "science."

After soundly berating me for my shortcomings, as he views them, Mr. Lunn's honest English heart could not help but admit "that 'Duality of Voice' is a reaction against the gross materialism which characterizes the works that of late years have appeared on the subject of the voice. Mr. Sutro rightly places the spiritual side first, etc.," and then adds, "How far the readers can accept his views is for each reader to decide."

Poor, aspiring, sensitive singers! This science, the old as well as the new, must be quite enough to make them gasp and almost drive the last breath out of them, instead of filling them with joy and a soulful comprehension of and love for the beautiful gift nature has bestowed upon them.

I do not want to complicate matters worse than they are already. On the contrary, I want to prove that these intricate and soulless studies are destructive rather than beneficial. To my way of thinking, they already are dead issues of the past; issues which in reality never have been alive, having been hallucinations of the mind, abortions from their first conception, the mere thought of a material issue, unless in combination with a spiritual one, being a hindrance to the production of pure tone.

In distinct contrast to the elaborate teaching of Mr. Lunn are written "singing lessons" emanating from a far-famed Paris studio, which are just now making the round of the press, and which have all the fascination of the boudoir, combined with the smell of the boarding-house school about them, where "Louise, Rose, Marie and blonde Bertha" are introduced to the mysterious fairy "song" with the unction and insinuating "grace" of the duenna, using artifice rather than art, and little household remedies, once supposed to be effective in place of the truth of science. The scholars belong to many different nationalities, but that is no obstacle in the way of their polyglot education, which is of a uniform nature for them all. It seems impossible that good results should be obtained; yet it appears to be the genius and intuition of the principal that she has succeeded in not hindering at least the development of some great voices, while on the whole there must have been more harm done than good by such teaching.

Thus, while intuition, in some exceptional cases, may be able to lead scholars into proper channels,

teachers, as a class, must be guided by science, that is, by true and not abortive knowledge, as heretofore, if good results are to be attained.

In an article on the "Volta Bureau," in the January number of his magazine, Mr. Werner makes use of the following language: "He who attempts to break the bonds of enthralled speech comes into close contact with the soul; the veil that hides the secret of life seems thinner as we approach the springs and centres of speech. The realm where factors of material voice meet and respond to factors of spiritual voice, is terra incognita; the science of voice production has only begun to dawn; we grope and only at intervals catch glimpses of light. Therefore he who even a little dispels the darkness that now envelops the voice deserves recognition and thanks."

What light has Mr. W. found to enable him to use such language if he did not get it from "Duality of Voice'? It has never before shown in his or in any other publication on the voice. He evidently fears to name the source it came from and his allusion to me, as well as his recognition and thanks, are for the nonce.

He thus feared to print an article I sent him in reply to an unjust, harsh and cruel criticism of "The Basic Law of Vocal Utterance," which appeared in his journal of October, 1898, and which I beg to produce now. My critic, Mr. Louis Arthur Russell, has had over five years' time to apologize for his vindictive attack, but has failed to do so, though I have reason to believe that he has since felt heartily ashamed of it; yet he has not had the manliness to come forward in con-

fession of his error, nor has any other writer come to my defence. His article still stands to-day unrefuted. This fact alone should be sufficient justification for me to produce my reply which Mr. Werner refused to print. The latter, after having previously been my friend and advocate, returned me the article in an abrupt and discourteous manner, saying, "You have not proved anything." As if anything truly scientific had *ever* been proven regarding the voice previous to my publications.

The fact is, Mr. Werner all at once found himself in water beyond his depth. He never dreamed what this matter he had at first so warmly espoused would lead to. He turned out to be a small politician, intent only upon his personal interest and that of his constituents, and not the far-seeing statesman I had first thought him to be. My defence was not wanted. He feared to displease his patrons, the teachers of the old and narrow faith, and also feared for the fate of his many publications on matters in connection therewith. This was the beginning of the crusade of suppression against me, which is still going on at the present time.

As the article throws light on the then state of affairs, which still continues, I feel doubly justified in producing it at this time. I want to add, however, that I have not the slightest personal feeling against either Mr. Werner, Mr. Russell, or any other person in connection with this work, which I consider a matter beyond any "personal" feeling. I must say these things in vindication of my standpoint. Science occupies so lofty a position, unless refuted by science, that no contention of the hour can tarnish its eternal truths.

I give the article verbatim as originally written:

To the Editor of "Werner's Magazine:" After patiently waiting over four years for a criticism of my book, "The Basic Law of Vocal Utterance," one has at last made its appearance in the October, 1898, number of "Werner's Magazine." It is the first criticism I have seen, though Mr. Russell, the writer thereof, states he has already done me the honor of reviewing my book at an earlier period.

Mr. Louis Arthur Russell treats this book in a hilarious vein and speaks about it as if its reading had afforded him a "good time." I fear I shall have to spoil his good humor for him a bit and reduce him to a state of sobriety, if such a condition is at all possible with him.

Mr. Russell has found some flaws and delights in pointing them out as a man who would criticise a priceless painting by calling attention to some minor defects in the drawing, but with a total incapacity for comprehending its motif and the genius of the master who produced it.

Nor do I at all admit the correctness of his criticism, even on these minor points; they are of too trivial a nature, however, to enter into any controversy about them. Still, this book of mine, I will admit, was a mistake in so far as it spoke of great things before they had been fully matured and comprehended.

What discoveries, however, in physiology, at the time of their first publication, ever had been fully matured? Are there, in fact, any matters connected with life, that have ever been fully understood?

¹ Published by Mr. Werner in 1894.

My book was written a year after my discovery of the voice of the œsophagus, a discovery which, when once fully comprehended, will be looked upon as greater, in a physio-psychical sense, than any that has preceded it. I was so full of it that I thought it my duty to acquaint the world with it.

Since then four years have elapsed closely devoted to these studies. During this time these matters have never been absent from my mind; not even when I was engaged in other pursuits, having been with me subconsciously always.

The truths laid down in my book, "The Basic Law of Vocal Utterance," have thus been expanded in every direction, so that they have now assumed the shape of a complete outline of a new science; a science which treats of "life" in a far different manner from the one in which it has been treated heretofore.

I do not want to be *immodest*; but the time has come when I must at least dare to be *true*; when I must no longer shirk the question of notoriety, if that must come, and which I abhor, but must speak out and say what I have to say.

I am now reviewing that portion of these matters which has been written out and which I expect to soon have in the hands of my publishers. (The same has since appeared under the title of "Duality of Voice.") Mr. Russell will then once more have the opportunity of ventilating his humor upon me.

The question of vocal utterance as a science is one about which the world has been, and I am bold enough to assert, apart from my publications, still is totally in the dark. It has been treated within the narrowest

possible limits, and from a technical point of view only. Yet it is paramount a question of life. In place of going to the lower animals and the dead, and investigating a solitary issue, that of the larynx, I have deeply entered into the issues of life inherent in myself; and if, in so doing, I have made discoveries far in advance of any that have hitherto been made, it is not the province of such a "superficiality" as Mr. Russell to "poke fun at them."

That which does not reach such persons through their "senses" does not exist for them.

Yet the question of the voice is one of spirituality far more than one of materiality; one which appeals to the soul and can only be comprehended by the soul; that is, by men spiritually disposed, with a spiritual bend in their composition.

That there must be a *material* way, however, with whose assistance the soul in vocal utterance manifests itself, is self-evident.

To arrive at the knowledge of the manner in which these spiritual-material phenomena manifest themselves requires just a little more of spirituality than such men as my critic happens to be possessed of.

Persons like Mr. Russell may consider all this ridiculous, saying we can not possibly know anything about these things. Yet what I know about them I have in the first instance learned by patiently, attentively, and persistently listening to and watching nature in the production of vocal sounds from their incipiency to their full development. Though this process to the common ear may appear to be instantaneous, yet there exists such a state of gradual de-

velopment. I shall in my forthcoming and future publications furnish indubitable proof of the truth and the exactness of my observations.

This knowledge has been arrived at by means of introspection, a mode of proceeding I was in the beginning unconsciously led into, but which was afterwards adopted consciously and with phenomenal success. If these discoveries could have been made by the usual methods the world would not have waited for me to make them. They would have been made centuries ago; even a Mr. Russell of a past generation might have made them.

I was led to success by this mode of investigation through unabatedly persevering in one and the same direction; namely, the attempt at comprehending and fathoming the *cause* of the difference as between English and German vocal sounds in their mode of production. This led me into the comprehension of the origin and character of *all* vocal sounds.

About this endeavor Mr. Russell facetiously remarks: "Mr. Sutro might with the same false philosophy say, did he try French or Italian, that the one used an ear, the other an eye, till at last he would be at a loss where to place the seat of control for the hundreds of languages of the world."

Oh, Mr. Russell, you have surely raised the laugh on me by this witty remark, but not for long; the tables will be turned on you by and by. You will then find out how grossly ignorant you have been.

My labor has been that of a chemist engaged upon analytical work of the most delicate nature. While surrounded by my retorts, vials, delicate scales and

other apparatus, Mr. Russell rushes in upon me like a wild man, trying to upset them all. But he utterly fails in so doing, not even creating the slightest disturbance. This work will go on in spite of such persons, and the time will come when they will cry "Peccavi!"

To this work there will be no end. It will occupy the life of serious men and women hereafter for centuries to come.

Let us hear further what Mr. Russell has to say: "Such essays, far from warranting serious attention as revelations of scientific progress, do worse than no good. They are positively baneful, and loud and frequent warnings should be sounded that the young student-reader especially may be saved from their possibly baneful influence."

This is a terrible charge, but no more terrible than the one which was hurled at Socrates when he was accused of "reviling the gods and corrupting the youths of Athens."

I plead guilty to both these charges: I positively deny the existence of Mr. Russell's gods presiding over vocal utterance. I decry as absurd "the dogma of the larynx," and all the deductions that have ever been made therefrom. I declare as equally false and absurd every theory heretofore advanced in regard to our mode of breathing.

I cannot stomach these gods any more than Socrates could those of his time, and am seriously intent upon "corrupting the young student-reader" into abandoning them and placing in their stead the agencies which preside over the mystery of life and produce the miracle of the voice.

No doubt Mr. Russell would like to hand me the cup of poison after this to get rid of me, as they did of him who had become so "inconvenient" to their traditions, and with whose teachings mine thus bear a faint resemblance.

Again Mr. Russell says: "In no other line of thought would a man dare to send a manuscript to a publisher, and I think that no publisher in any other branch of science would put his imprint on a book professedly scientific and philosophical, which in its preface professes utter ignorance," etc.

I candidly confess I was at first greatly perturbed at not being able to reconcile that which I had recognized as true with that which had heretofore been supposed to be so. Being new to me, I was fearful of blundering, and I was "naïve" enough to say so. Of this position, in which I was unavoidably placed, Mr. Russell has taken an undue advantage.

As for Mr. Werner, the publisher of my book "The Basic Law of Vocal Utterance," he has the intuition for comprehending great things even before he has been able to master them in detail, because he has the heart for comprehending them.

He has also the courage and the generosity of spirit of "risking something"; of braving the opinion and the prejudice of the Philistine, who is afraid of stepping aside from the conventional pathway, and is forever travelling along the old beaten track.¹

Mr. Russell says: "How can the profession have confidence in any of the theories when so many fall to pieces at the first blow?"

¹ Since writing the above I have had a sorrowful experience with Mr. Werner's "courage and generosity of spirit."

Mr. Russell has not given them any blow whatsoever. He merely denies their truth. That is a serious blow for them, no doubt, coming from such a source. The only attempt Mr. Russell made to probe into the correctness of my statements was when he "thrust his tongue-tip hard up against the ligaments under its own lower surface," yet found he could sing any phrase in any language.

To this I reply: He did not do what he says he did, though he may have imagined that he did. If he had touched those ligaments or the frænum with his tongue's tip and held it there without allowing it to vibrate he could not have uttered a sound; nor could he have uttered a sound if he had made either of these parts rigid; the latter being the more perfect and positive mode of proceeding.

I could place him in many other positions, even with his tongue perfectly free, in which he would not be able to utter a sound. I could also place him in many other positions in which he would be able to utter vowel, but not consonant sounds; and again in others in which he could utter consonant but not vowel sounds.

To follow Mr. Russell in all his objections and to refute them would be an impossible task. For who can argue with a man who meets a serious proposition with such a remark as this: "Can Mr. Sutro prove the first statement on page 38, viz.: 'The manner in which we breathe for speech is by raising and lowering the tongue'? Thousands can prove to the contrary, you and I included."

I first commenced to watch the movements of the

tongue, superficially only in the beginning, to be sure, something like forty years ago; during the last fifteen years I have done so with much seriousness and considerable accuracy in the results; more especially within the last five years; that is, since the discovery of the voice of the œsophagus.

While I had previously made observations and knew how to apply them *empirically* for the production of pure vocal sounds, since that discovery my eyes have been opened as to the *causes* of these effects. To say they were marvellous would be using a mild term. I was fairly staggered thereby.

They gave me an insight into the secret workings of nature not before possessed by any man. This insight was not confined to the voice, but extended to and embraced many other very important issues.

How much time has Mr. Russell devoted to the observation of the movements of the tongue? Neither he nor any other man ever had the first idea how their tongues actually move. Would Mr. Russell have waited four years before he had made known those revelations? Would he not have cackled loud and long over every new laid egg, no matter how puny, until all the world had known of it? Would not he have applied this knowledge to the furtherance of his personal interest in his teaching, etc. Is it reasonable for Mr. Russell to expect me to go with him over the entire ground of my discoveries in a magazine article?

I will tell him this, however, he will have to come down to some very serious study and think long and deep if he wants to know these things of his own

knowledge. Yet he will be compelled to make himself the possessor of this knowledge if he wants to keep within the race which is about to set in regarding the *truth* in matters of vocal utterance.

I appeal to the young (whom I am said to corrupt) to devote themselves to these studies and to thus become the precursors in the application of principles which are destined to revolutionize the vocal science of the world; the old being often too old to get out of lifelong practices, no matter how erroneous.

If Mr. Russell had not thought his cup of knowledge already full, but had been intent upon adding thereto, it would have been better for him to have asked me some questions, in place of "going for me" in this blind fury. But neither he nor anyone else, Mr. Werner always excepted, those four long years these matters have been before the public, has deemed it worth his while to ask me one single question.

If he and others had, and had seriously entered into these subjects in the same manner that I did, they might have at least made some of the many discoveries it has now been my privilege to make single-handed.

Whatever question anyone may wish to ask me now will be answered through my books. It would be impossible to answer them in any other way.

I will not, therefore, enter into any further controversies through magazine articles, or in any other way, as all my spare time will be occupied with the further prosecution of this work.

EMIL SUTRO.

I beg to add to the above the following:

Mr. Russell in his "review" also made use of these words:

"You (Mr. Werner) class Mr. Sutro with that earnest scientist, Doctor Frank E. Miller, saying: 'Attention should be paid' and 'these men must be answered. They will not subside; they will keep on until they refute or are refuted.'"

If the reader will kindly turn to the article of "Duality of Voice" entitled "Songs, Singers and Physiology," he will on page 210 find my estimate of Dr. Miller's accomplishments in connection with the voice; that entire chapter having been inspired by Mr. Russell's attack; several entire sentences thereof, in fact, having been taken from the preceding "reply."

The only other review of any length and consequence, which has appeared in any American musical or scientific journal, either in favor of or in opposition to my work from 1894 to this date, that I am aware of, is the following, and my reply to the same is also all I have ever written for publication outside of my books.

This fact that my work has been so completely ignored in this country, although I do not think any excuse necessary, I am frank to say, may possibly have to some extent influenced my views concerning the American people in matters of this kind, as expressed in this book, although it is my earnest desire to be ever frank and impartial in my statements. My studies up to the time of this writing (spring of 1904) have not created the first ripple of a sensation in any American university; yet I dare say the time will

come when they will become the "spiritual football game" for students in many a fierce debate.

The following is the criticism and my answer, as above referred to. It appeared in the Musical Courier, New York City, March 7, 1900:

"'The Duality of Voice,' by Emil Sutro; G. P. Putnam's Sons, New York and London. I wish I could say something that would please Mr. Sutro, after reading his book, but I must be honest in my opinion. When a person totally disregards all the known laws of science, discussion cannot reach a common basis. Mr. Sutro attributes the qualities of the voice to the kidneys, the bladder, and the other abdominal organs. The solar plexus is also, in his judgment, an all-controlling factor. The volume as a whole conveys no lesson. It is a jargon of terms and reasoning, and I wonder how the publishers could see their way clear to issue it. The author misuses the term 'viscus,' and he states what will be news to most anatomists, that a diaphragm and a sphincter muscle are synonymous. The attempt to place physical facts on a spiritual basis is rarely successful. His remarks on the laryngoscope do not reflect favorably on his medical knowledge, and his right to discuss the subject is in considerable doubt. The volume should not be placed in the hands of students."-Musical Record, Boston, December, 1899.

THE TRUTH IN MATTERS OF THE VOICE.

If the writer of the above notice supposes he can dispose of me and my work in this high-handed fashion he is mistaken. According to his own confession, he is standing on strict anatomical (physical) ground. From this narrow standpoint he presumes to pass judgment upon a spiritual issue. That the voice in vocal utterance is a spiritual issue, far more so than a physical one, no one who has given the matter any thought will deny.

My researches have led me on to the clear recognition of the fact that what scientists teach regarding what, in their estimation, is the "instrument of the voice" is valueless as a help to the student of vocal utterance.

My reviewer says "that attempts to place physical facts upon a spiritual basis are rarely successful."

To be sure they are. But I have not attempted to do this. On the contrary, I have attempted to place spiritual facts upon a physical basis.

Of the spiritual facts (the properties of the voice) all have a fair conception; of physical (not to speak of psychical) causes, thus far no one has a correct idea. What physiologists consider to be the "causes" is of a strictly materialistic order, and, even in this sense, is but partly and distantly true; all that has been said about the voice thus far being based on the observation of materialistic phenomena and upon hypothesis only. The attempts at construing the human voice out of cords, sinews, muscles, cartilaginous and other matter,

are irrational and futile. No vocal sound has ever been made to issue from such things.

The relation of one form of matter to another form of matter (the influence of the expired air upon the vocal cords), on which the science of the physiologists mainly rests, has no bearing upon spiritual issues.

Whatever else there is known about the voice, apart from this pseudo-science, is based on empiricism only, and is as contradictory as personal opinion, without scientific backing, possibly can be. The best people in the profession unhesitatingly admit this. There is nothing whatever positively known therefore to base the teaching of voice production upon.

I have reached my conclusions through observations of the comparative mode of voice production as between English and German speech, a study to which I have devoted a great many years. I found that voice production is of a different order for every separate language, which it necessarily must be in order to produce the particular idiomatic expression which distinguishes one language from another. To base the teaching of voice production on principles applicable to all languages alike, is and necessarily must be false. After establishing general principles, the special mode for each separate language must be established. I have succeeded in doing this far beyond any attempt previously made.

When my reviewer can tell me how his muscles move and his cords vibrate for the production of simple and vocal sounds, vowels, diphthongs and consonants, in song, speech and elocution, and for the various moods of language, in his own and other tongues, I shall begin to think that he knows something about vocal utterance; provided, however, that he can produce these movements at will for each and every separate purpose. As he does not comprehend these movements, nor can produce them at will, what does his knowledge, whatever that may be, stand for in connection with vocal utterance? Though a science, possibly, in the abstract, it is valueless in its application.

This reviewer of mine, though perhaps a specialist in anatomy, evidently has no conception of the nature of the voice. Why such a person should have been selected by a musical journal to write on so foreign a subject to him as the voice, is one of the mysteries we sometimes meet with in connection with this very mysterious subject. This person, moreover, is so content with his own position in matters of this kind (a sure sign of ignorance) that he presumes to speak patronizingly of me. He furthermore has the assurance of giving gratuitous advice to my publishers. I wish I could say something favorable of this "reviewer" of mine, but honestly I cannot. The manner in which he has treated the most valuable contribution to vocal science ever made proves him incapable of comprehending the true character of vocal utterance; a performance which is the outcome of influences beyond the scope of his sphere and the school to which he belongs.

This, of course, is not a mere "personal" contest. I would not waste my time on it if it were. When the knowledge I have gathered becomes the property of others to the same extent that it is now mine, it

will be possible to teach voice-production in conformity with laws recognized as true the world over.

I cannot here enter further into details. My publications must speak for themselves. After my critics have read and studied them, and made the experiments which I offer in such abundance, they will have the right to judge.

When they merely hunt through their pages, however, for flaws in anatomical statements, as this reviewer has done (right or wrong, it is not worth while disputing with him), they are welcome to every omission of a dot of an i they can find, but that will not in the least affect my position. While looking for a mole-hill they fail to see the mountain; or, in other words, they fail to comprehend the meaning and the mission of my work and the great lesson it conveys. This mission and lesson consist in restoring to the world (through the science of the voice) that spirituality which the materialistic school of investigation has banished from it; not merely as a force we feel and know of in a vague and distant manner, but a force scientifically proven to be the greatest living factor ruling the universe.

These things have come into the world to *stay*. Vocal teachers, psychologists, and others, will be *obliged* to study them sooner or later; better soon than later.

It has been said that my statements, if accepted, will upset "everything," being contrary to recognized physical laws. But how about psychical laws? Who will set himself up as a judge? We are drifting towards a greater age than the world has yet seen—the

of "spiritually" seeing, "spiritually" knowing. Other things have come to pass which were also supposed to be contrary to every known law; the telephone, the phonograph, the Röntgen rays, the Marconi messages. They are ghostly things; physio-psychical portents of greater things to come.

Through higher physical developments of the laws of nature we are drifting towards higher psychical ones. It will be the marvel of future generations that what is now passed off as the "science of the voice" should have ever been taken seriously during any period of the world's history.

When Stephenson first applied for the privilege of running his railroad it was objected to on account of "danger to the cows." He replied, "So much the worse for the coo." The cows have since learned to keep off the track of his railroad, which is running in all parts of the globe. So, I apprehend, will this railroad before many years; and it will be well for Philistines (like my reviewer) to keep off its track.

I have in this instance broken my resolution not to answer criticisms. I could not answer them if I would, my time being really too valuable. I have taken this opportunity, however, to once for all state my position as briefly as I could.

The world has been waiting, I might say praying, for just such revelations as are contained in "Duality of Voice"—more especially the world of singers. Yet my reviewer says "the volume should not be placed in the hands of students." Have students any basis whatever now upon which they can stand; and are

they going to obey his mandate, or will they reserve to themselves the right to judge for themselves?

He says I attribute the qualities of the voice to the kidneys, the bladder, and other abdominal organs. This is a perversion of facts by omission, having said that all vessels contribute towards tone production, these, of course, included. I have proven this to be true, and shall continue to heap proof upon proof, in future publications, till no one will be able to gainsay it to be a fact.

Of other fields of research, besides the voice, into which my investigations have led me, I will not here speak. If time had permitted I would have treated upon these various issues separately; unfortunately this has not been the case. All these subjects, however, are closely related, and dovetail into each other. They may not all relate *directly* to the voice, but they all relate to it indirectly.

My researches have led me away from and beyond the present materialistic mode of investigation, and have resulted in physio-psychical discoveries of the greatest importance. I was unwittingly led into the knowledge of secrets nature had withheld from us to this day. Through these discoveries I was able to recognize the fact that the voice is of dual nature; that it is a correlative emation from material and psychical factors, physically represented by trachea and œsophagus.

I have reduced these studies to a science, which, when fully developed (part only having been published so far), while placing the entire subject of the voice upon a higher plane, will at the same time place

it upon a comprehensible, reasonable, and practical basis.

It must not be expected, however, that matters which are so involved and have been hidden from us all these years should be at once and perfectly understood. It will take years of patient study to get to the *bottom* of them. The reward, however, will be great.

I want my book to be read and *studied*; and I want to be helped by those capable of helping, in the further development of these important issues.

The subject-matter of "Duality of Voice" is now being investigated by teachers of both sexes in the foremost rank of the vocal profession. Many of my statements have already been verified by them. I rely on vocalists more than on physiologists to assist in this work. The latter only go as far as they can see; the education and thought of the former, on the other hand, are directed towards the feeling, the sensation, the spiritual expression. Their world is that of keenly, vividly hearing; they are in direct touch with the soul.

When these matters are well understood the teaching of singing, elocution, etc., will become a pleasure to both teachers and scholars; the mists now hanging so thickly over *defects* of speech, stuttering, etc., will be dispelled; the deaf will be taught to speak *soulfully*, and not like mechanical toys; and the way will be smoothed for the better comprehension of many other things which have racked the brain of man since time immemorial.

EMIL SUTRO.

I now want to offer further proof as to the present deplorable state of vocal science by one of its principal exponents, Mr. Edgar S. Werner, who, in "Werner's Magazine" of January 1, 1900, the number which began a new century, and is therefore doubly significant, published the following:

"AS TO ELOCUTIONARY TRUTHS AND ESSENTIALS.

Nothing would be more welcome to the editorial heart than a department of 'truths'-a department that should contain nothing that was not actually so, positively proven, capable of scientific demonstration. Perhaps no department of scientific inquiry needs such a sifting more than does vocal and elocutionary science. Perhaps, also, in no other professions are there more charlatans or is there more humbuggery, or more superficiality. Now, if there could only be a department in this magazine where nothing but the refined gold of truth and safe counsel appeared, what a blessing it would be to our readers! Sometimes we are thrilled with such an impulse, and we begin to jot down what we believe to be worthy of admission into such a department. Alas! as others have found before us, we soon dash against rocks, and our ship of confidence and enthusiasm is left stranded on the beach of ignorance and helplessness. Of course such a confession by a would-be guide may lack worldly wisdom, but this is a season of the year when most people are in a penitent and confessional mood, and feel inclined to reform and make promises for the new year.

We wish that we could admit into our columns only that which is accepted by competent authorities, and that which can be proved to be true and good. So much that is questionable is offered as 'science' that the young student is puzzled or is misled many times to his injury. We wish that we could offer only actual truths to enable him to square his vocal and elocutionary science and to get into paths that would not lead him astray.

* * * * * *

Some of the things that seem to us to be worthy of acceptance as vocal and elocutionary truths are these:

The maximum effort in artistic respiration should be at the diaphragm.

The minimum effort in voice production should be at the vocal cords.

The maximum effort in articulation should be at the tip of the tongue and at the lips.

The lungs are composed of elastic substance, and are encased in an elastic framework.

The lungs cannot be emptied of air entirely. There must be always some air in the lungs. This air is called the residual air, and is said to be in amount from 75 to 100 cubic inches.

Vital breathing, i.e., respiration for life purposes, is involuntary. It goes on during sleep and during other times when we are unconscious of the process. Artistic breathing, i.e., respiration for song or for speech, is largely voluntary. We are conscious of the use of breath, and we put forth efforts to regulate it.

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In discussing vocal topics a distinction should be drawn between vital respiration and artistic respiration.

The organs that produce voice are used also for other purposes—respiration, deglutition, etc.

The mechanism of speech and of song cannot be seen. 'Visible speech' is a term that cannot be accepted literally, but only in a metaphorical sense.

* * * * * * *

The foregoing 'truths' are mere fragments. We give them on the theory that a few slices are better than no bread at all."

This confession, it will be admitted, reveals a deplorable state of affairs. Its want of, could not be more forcibly illustrated than by its claims to, knowledge.

Of these claims or truths, those first enumerated cannot be admitted as quite correct. On the contrary, in artistic respiration for voice production there should be no "effort" in any one *single* direction; such an effort would be resultless, the first law in voice production being correlation, interaction, correspondence, distribution always.

That which follows regarding the "lungs," is information taken from the text-books, and is not directly related to vocal utterance.

The rest of the "truths" have been appropriated from my publications.

Those who have read my books will not hesitate in agreeing with me on this point. Mr. Werner had known of these matters for some time before thus making use of them. This fact seems to have weighed on his conscience. Some day, possibly, when in another "penitent and confessional mood," he may also name their author.

To explain the reason why Mr. Werner's name has so frequently appeared in this book, as well as in the "Basic Law of Vocal Utterance," it is necessary in the first instance to state what he himself has often mentioned in his journal, namely, that he is a stutterer. Not having been able to find a relief for his affliction, either in this country or in Europe, he started a journal having the scientific investigation of the voice for its main object, with a view and in expectation of thus coming across means which would come to his relief.

This journal for the past twenty-five years has been the main exponent of investigations into the matters of the voice, and Mr. Werner has been its standard-bearer.

It is said that there is, or rather has been, no other journal in the world of a similar character. I say "has been," for, as a matter of fact, "Werner's Magazine" ceased to exist as a journal devoted to the scientific aspect of the voice about a year after the appearance of "Duality of Voice," that publication, as admitted by Mr. Werner, having given the death-blow to all that had theretofore "masqueraded" as science of this nature. Yet Mr. W. has not yet seen his way clear to open his magazine to the new and true science.

I will also add here, as it is pertinent to the matter, that the last time I saw Mr. W. I noticed that his speech had become far more fluent than before, and he was free to admit that he owed this fact to my

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expositions, which had already assisted in freeing the channels of the voice in his case.

When I first spoke to Mr. Werner about my discoveries in the winter of 1893-94 he at once seized upon them with eager interest and encouraged me to write them out. When this was accomplished he published my book under the title of "The Basic Law of Vocal Utterance."

In a contract dated the tenth day of September, 1894, occur these words: "Whereas the said Emil Sutro has written a book, the title of which is 'The Basic Law of Vocal Utterance,' and whereas the said Edgar S. Werner is desirous of obtaining the sole and exclusive right, license and privilege of publishing and selling within and throughout the United States said book, when printed in the English language, said Emil Sutro expressly reserving to himself all the rights of translation and of publication and sale in any and all foreign countries, now, therefore, etc., etc."

That was ten years ago. Yet it was but a beginning, a preliminary treatise on what since has grown to be a science. Our hopes and expectations were great then, but we had not reckoned with the petty spirit, the malignity, ignorance, and selfishness of those directly interested in the subject.

While my efforts have found no recognition in the musical journals of this country, music teachers in many instances have appropriated them to their special benefit. They are basing new "methods" upon them, which they pass off as inspirations and discoveries of their own. These sometimes vie in their want of in-

telligence with some of the worst specimens of the realistic school.

"Music Life" of May, 1901, contained the following: "Breathing for artistic singing must be automatic; that is, it must work unconsciously; while singing it may work in many ways, and the spirit which prompts a certain way of taking and managing the breath, even though it be different from the one usually practised, is probably the right one for the moment and purpose. But breathing practice is to prepare the organs, so that the spirit may take the right breath."

Yet my friend, Mr. Frank Herbert Tubbs, had previously expressed himself as follows: "It seems as if he (Mr. Sutro) has gone into the true science of Being. He possesses through his discoveries things which, when worked out, will unquestionably revolutionize the study of language, the study of voice culture and singing, and even of metaphysics, etc."

In place of further assisting me in my efforts by public discussion in his journal, this gentleman, the only one who had dared to publicly allude to my work at all, soon after concluded it would "pay" him better to publish "Music Lessons" based on "new theories of his own," and the passage above quoted is from one of these. The same gentleman previous to the publication of "Duality of Voice" had an anatomical model of the larynx standing on his piano, from which he demonstrated to his scholars the production of the voice.

How can there ever be any progress while the "profession" acts in this selfish manner?

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If my studies possess a value of a new order, and of a superior order to those pursued in this field here-tofore, and this fact is recognized, as it already has been by so many, would it not be best for those who guide public opinion and instruction, the editors of and writers for musical journals, to whom these studies more directly appeal, to cease reading by the rush-light of the dark ages in this the age of electricity, and take a little interest in them, see what merit they possess, invite discussion, and thus evoke additional light on the subject? A rational mode of instruction may then be arrived at with results of a far different order from those attained heretofore.

I have seen it stated that two hundred years after Copernicus' death, and long after the world generally had accepted his theories, debates pro and con regarding them were still carried on in a New York college. I do not propose to let these matters rest two hundred years for the people of the twenty-second century to debate them, if I can possibly bring about discussion now. The next question is: "Will singers and students of the voice read this book, and will the press comment upon it any more than it did upon my previous publications?" Mr. Herbert Spencer once said: "People will sooner take a dose of castor oil than read a chapter of my treatises." And I say the average singer prefers singing his throat sore all his life to going to the trouble of finding out from these studies what this soreness is produced by. They go on year after year singing "against the grain," ruining their voices, because they have not the sense of attempting to gain an insight into the true character of vocal utterance. I know a teacher who had a volume of "Duality of Voice" in her possession for four years, but never found the time for reading it, which was all taken up by what she called "study."

Singers in their imagination are soaring above the earth, while as a matter of fact they are fluttering in problematic regions of neither earth nor sky, or reason or sense of any kind. They have given me proof of this fact over and over again. Of course there are exceptions, luminous sources from whom I have had much encouragement; but they were mostly Germans. Americans with whom I conferred, as a rule, asked me to demonstrate to them "physically" the truth of my statements. Germans were satisfied to know about the inner motive power and the thought underlying it all.

The latest exploitation in this line is a book by Lilly Lehman, published in Germany about the same time as mine was published there, beautifully illustrated with all the exploded heresies of the past. But the author is a famous actress and singer, and the book sells, which speaks volumes for that nonentity "public opinion."

Yesterday, April 9th, 1904, I attended a "lecture recital" at the New Lyceum Theatre before a brilliant audience on the "Singing and Speaking Voices."

The lecturer proved his entire ignorance of the subjects of voice production and breathing by treating them from the old, narrow, threadbare, physical standpoint, with not a trace of the spiritual influence. His discourse was made palatable by the interspersion of anecdotes; but as for any profit to be

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derived therefrom it was absolutely depressing and empty.

He was assisted, however, by a gifted singer and elocutionist.

I spoke to these gentlemen after the performance and found that the gifted singer and elocutionist was familiar with my name, but nothing beyond that; the lecturer had never heard of either my work or my name. What a momentous lecture he might have delivered on his subjects if he had but known!

In conclusion I want to remark that most of this chapter was written much against my will and inclination, and with the loss of much precious time. But I felt that it had to be written as an exposé of the entire worthlessness of present beliefs in matters of this kind.



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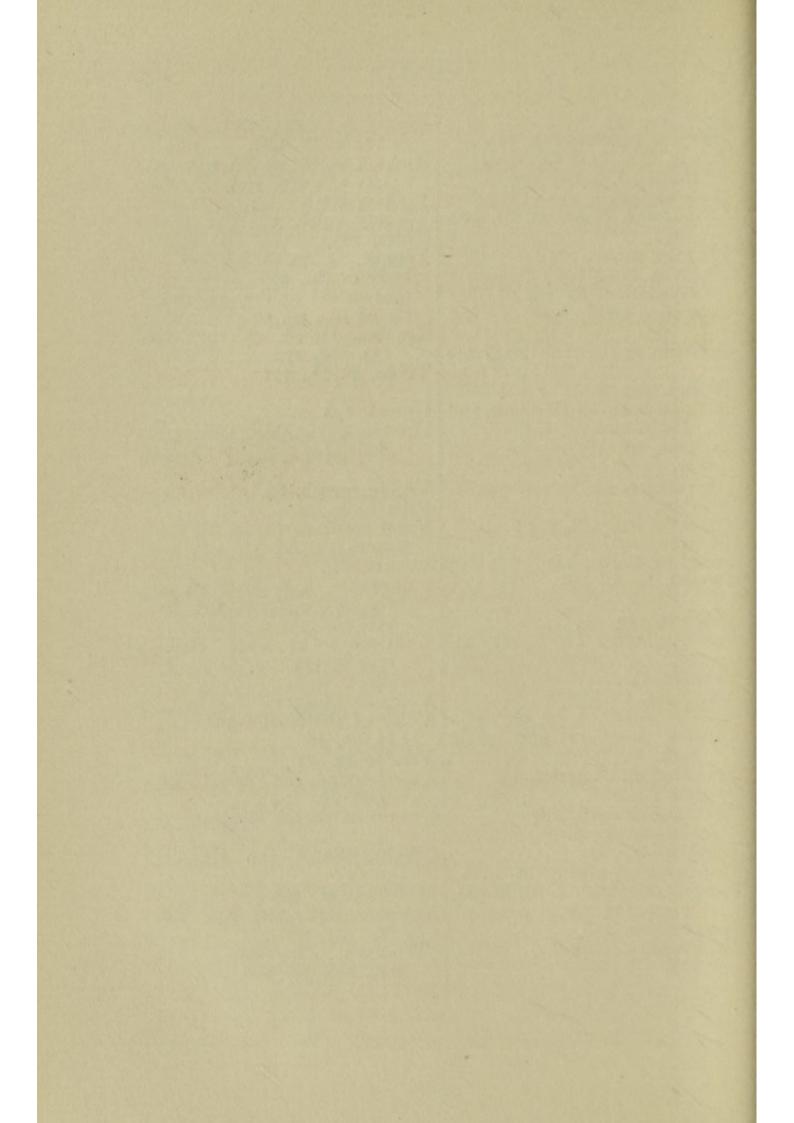
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For the purpose of assisting the furtherance, continuation, and additional investigation of the questions started by Mr. Sutro's work, a society has been formed in New York and Berlin, Germany, whose aims are stated in the following prospectus:

The International Physio=Psychic Society bas the following aims:

FIRST:

The scientific study of the spiritual nature of man in his NORMAL condition, in contradistinction to the objects of other societies, whose aim is to make a study of man's nature when in an ABNORMAL or SUPERNORMAL state.

SECOND:

The placing on a sound footing of the principles mediating between materialistic science and religion.

Traditional revelation in matters of religious belief being daily more discredited through revelations in science: to save mankind from the pernicious influence of materialism, a new order of things must be inaugurated through a counter movement establishing SCIENTIFIC PRINCIPLES proving the existence of spirituality as the first cause ruling the universe, and its supremacy over matter in the living man. The placing of psychical facts upon a physical basis, which is the reverse of what physical basis ology is now so vainly attempting to do.

The meaning of psychical representations, as of beauty, justice, truth, etc., as embodied in the words of language, is well understood by mankind generally, and so is the meaning of every other idea represented by the SPOKEN word, while of correlative PHYSI-CAL factors productive thereof we have absolutely no positive knowledge. While the brain is generally credited with their production, to the vocal cords of the larynx is ascribed the production of vocal utterance, which, however, is also a preponderately psychical process. Hence, correlative physical factors, which are diffused through and embraced by our entire system, must be established through their association with, and relation to, KNOWN psychical FACTORS, and not the reverse.

We do not possess even an adequate idea of the extent of physical factors, which act in conjunction with correlative mental factors in the production of our FACULTIES, though of the anatomical construction of the END organs of our senses we have a fair conception.

FOURTH

The recognition of the true principles underlying VOCAL UTTERANCE, and the teaching of all its branches, in a rational and comprehensible manner.

As the principles herein enumerated have been arrived at through a prolonged and careful study into the inner being of language, so they are exponents and explanations of vocal utterance in all its various forms. This exposition has hitherto been wanting, hence the chaos which has prevailed.

For the first time in the world's history, metaphysics have been PRACTICALLY APPLIED. True underlying principles have come to light and are furnishing safe guides to knowledge. Thus the road to rational teaching has been opened. Voices will cease to be ruined, healths to be broken, and fortunes to be wasted, through the pernicious influence of present false and futile principles, supposed to be underlying vocal utterance.

Other truths have been ascertained, which, in their application, will have a vastly beneficial influence upon HEALTH in the PREVENTION of disease.

FIFTH:

The publication and dissemination of pamphlets, books, magazines, and other literature exemplifying and maintaining the truth of the eternal spiritual principles inherent in man.

SIXTH:

The delivering of lectures—the promoting of debates and the holding of congresses—the formation of sub or branch societies.

SEVENTH:

The founding of a library, or a collection of works, on Physiology and Psychology, leading up to a correct knowledge of Physio-Psychic principles and laws, as the true basis of our existence.

There is a great and increasing yearning in the world to-day after rational, spiritual truth. In the great contention going on between science on the one hand, and religion on the other, their real and proper exponent—which must be sought in the true essence of man—has been entirely lost sight of. Science, for the most part, deals with matter; religion, with the spirit. Their conjunction represents life—man's life. As a matter of fact, neither can exist without the other. If we were able to ascertain what a human being is—how matter and mind act and react upon one another—we should then possess a true knowledge of the Science of Being, and, in so doing, arrive not only at the true essence of science but also of religion.

Thus a new reign would be inaugurated in the conciliation and unification of two principles, now apparently almost hopelessly divided IN OPPOSITE directions.

Membership in the society is open to men and women interested in Physiology, Psychology, Philosophy, Religion, etc.

OFFICES OF THE SOCIETY
Suite 311, 1204 Broadway, New York
A. W. HOLBROOK, Secretary

Hauptstr. 87, Schoeneberg, Berlin, Germany F. H. Schneider, Secretary

SOME AMERICAN AND ENGLISH PRESS OPINIONS ON "DUALITY OF VOICE" ALSO SOME EXTRACTS FROM LETTERS.

Scientists and students and teachers of the voice, will find subject for thought and discussion in Emil Sutro's "Duality of Voice." The preliminary exposition of his theories was made in an earlier book: "The Basic Law of Vocal Utterance." In this volume the author's views are propounded at length with the force of a man who is absolutely convinced of his position. Mr. Sutro shows great earnestness and keen observation, and there is much in his book both interesting and suggestive.—Literary World, Boston.

This is Mr. Sutro's second book on his discovery that the voice is of dual nature, and that it has a psychical, as well as a physiological, side. His theory, which is entirely novel, has hitherto failed to attract the attention of singers, teachers, anatomists, physiologists, and psychologists; but he is undismayed, and still holds that his discovery is the most comprehensive and far-reaching of any that has ever been made.—

Mail and Express, New York City.

Mr. Sutro's views are very original, and worth studying.—Era, London, England.

Mr. Sutro regards the human voice as the outcome of a series of both physical and spiritual issues. Out

of this position grow a number of very novel theories which are directly opposed to what has hitherto been regarded as the established truth of science on the matter. But, though he is thus opposed to all the world, Mr. Sutro grows in assurance just in proportion to the number and competence of his opponents.—Observer, Bradford, Yorkshire, England.

Very interesting, indeed, is Emil Sutro's "Duality of Voice: An Outline of Original Research." I commend it to the attention of those interested in a subject fruitful of much discussion.—Gentlewoman, London, England.

It is a sort of vocal theology, as it were, with chapters on the influence of the body on language.—Christian Register, Boston.

Mr. Sutro's opinions as to the nature of the voice are in radical opposition to generally accepted opinions. The voice, he says, is due to the union of two elements, one of which is positive, the other negative. Space is lacking to consider even a tithe of the deductions drawn by the author in his exhaustive study of the subject. Startling as his position is, he is thoroughly convinced of its soundness, and is justified in claiming that it should not be condemned without positive proof of its falsity.—*Etude*, Philadelphia.

"Duality of Voice" is a scientific treatise on the culture of the voice in singing and speaking. The author discards the prevalent materialistic theory that the voice is merely a physically vibrated air current. As against the physiologists, who claim that the voice

is evolved from matter without a trace of spirit, the book asserts that teachers, as a class, are with him. They feel, he says, that the efforts of the physiologists to aid them in their vocation are wrong and misleading. They know that song comes from the heart and the soul, while it uses the body for its instrument. That quotation is the key to the book.—The Public, Chicago.

The latest basis of philosophy is breathing, which has been developed by Mr. Emil Sutro in a book called the "Duality of Voice: An Outline of Original Research." The chapters of Mr. Sutro contain many excellent remarks on voice-culture and on the teaching of the correct pronunciation of foreign languages. It will find many readers.—The Open Court, Chicago.

Whatever may be said of the theories here offered, there can be no escaping the charm of the author's clear, concise and unhindered statement of them. Mr. Sutro offers a large amount of valuable suggestion connected with the physical production and philosophy of the human voice.—Independent, New York City.

This unique and interesting volume marks the beginning of a new era in voice-culture, in which will be found scientific explanations of the formation of speech sounds. Mr. Sutro reasons with precision, and his conclusions are drawn from self-evident facts. His discovery of the counterpart of the larynx in the replica is an important one. Like all other really great discoveries, it appears to have been in the beginning, the result of chance. The exposition of his theories is marked by mathematical exactness. "Duality of

Voice" is, on the whole, a book that will prove a benefit and a help to all who read it.—Tribune, Minneapolis.

The author sets forth his novel theories with numerous illustrations, and a seriousness and enthusiasm which command attention.—*Times*, Brooklyn.

A book for students of vocal culture is "Duality of Voice." It is unusually sprightly and vivacious for a discussion of such a theme. The writing is fresh and suggestive, and its positions appear to be worth the close attention of all students of the subject.—Congregationalist, Boston.

A most valuable treatise for singers and speakers who would make the most of their gifts.—Observer, New York City.

An interesting essay on an interesting subject by one who has made a careful study of voice production.

—Observer, London, Eng.

We do not often take up a work so full of new theories as Emil Sutro's "Duality of Voice." Of course it does not follow that because a theory is new, that it is valuable, but Mr. Sutro offers the world a radically fresh view of the nature and conditions of vocal utterance, which seems well worthy the attention of experts in this field of study. Various other topics, treated in the work, especially its theory of the origin of race distinctions, deserve consideration.—Era, Philadelphia.

The book is not one to be trampled upon in controversy, the earnestness of the man who wrote it forbids that; there is nothing self-vaunting in it. He does not say, "Stand by, I am wiser than thou." He believes

in himself as one chosen to reveal; yet almost fearing lest he should "have wrung facts from nature that may have never been intended to be revealed." Again there is something pathetic in his appeal, "lest it be too late." Every discoverer, every investigator, every enthusiast who has grown old in the service of science will understand it, feelingly, and with sympathy.

The author considers that his "discovery will take rank in the annals of the history of the human race as second to no other discovery that has influenced and shaped human thought in the proper recognition of the origin and nature of man."—Musical Opinion, London, England.

This work is a reaction against the gross materialism which characterises the works that of late years have appeared on the subject of the voice. Mr. Sutro rightly places the spiritual side first, writing of others: "They are all grappling with matter, while I have grasped the spirit that is with, yet above all living matter." Again, "The body is the habitation of the soul. The soul dwells in its every part." How far the readers can accept his views is for each reader to decide.— Charles Lunn, in Music, London, England.

Mr. Sutro naturally considers his discoveries among the most remarkable ever made by man and he foresees wonderful developments. It is impossible to consider here the numerous and complex questions raised by the book. We must be content to indicate its principal contention. The author's earnestness and belief are unmistakable.—The Musical Times, London, England.

The book is one which distinctly calls for criticism. It offers, according to the author, "the first ray of light that has ever penetrated the gloom and darkness surrounding the mystery of the voice," and if so it is then a Roentgen ray that will not soon fade. We acknowledge the interest of the book, the contents of which will no doubt engage the attention of specialists in matters physiological and psychological.—The Monthly Musical Record, London, England.

This is the second book of a series which, if Mr. Sutro lives, will include several volumes. The first, "The Basic Law of Vocal Utterance," was published in 1894, and the author has nearly completed a third. Mr. Sutro has, in a search for the causes of the difference in languages, come upon what he believes to be the laws governing all expression. It seems as though he had gone into the true Science of Being. possesses through these discoveries, things which, when worked out, will unquestionably revolutionize the study of language, voice culture, and singing, and even of metaphysics. Something of these hidden things are given us in the volume under review. Mr. Sutro says our bodies and souls join hands to produce the miracle of the voice; the soul dwells in its (body) every part; all vocal expression is but an echo, the echo of a thought. So far can we join him. There are many beautiful deductions from these premises; but there are others which we think wrong.

Throughout the book there are statements which startle and stimulate thought. They give evidence that a mighty truth is being discussed. So frequent are these statements and so radical are they, that I most

heartily advise teachers who are ready to think and puzzle to obtain "Duality of Voice" and study it thoroughly. It is not to be entered upon lightly, nor to be understood at one reading. The first impression which most teachers will have, is that the book is absurd. It is certainly different from any other work on voice. Study will show that its premises are not absurd. These are worth serious consideration. Even in the things with which you and I cannot agree we shall find matters to challenge our attention and respect.— Frank Herbert Tubbs, in Music Life, New York City.

"'How long, oh, how long,' cries Mr. Sutro, 'will vocal teachers persist in clinging to error, masquerading as vocal science, chaperoned by tradition, even by the respectable and venerable traditions of "the old Italian school?"'

"Mr. Sutro's researches and experiments confirm the theory that breathing for life purposes is a function entirely distinct from breathing for art purposes. The problem, then, would seem to be to employ that method of voice use that least interferes with vital respiration.

"If this theory of vocal air use be correct, and a vocal method be based upon it, many of the problems that have so long baffled the vocal profession will be solved. Vocal instruction will lose many of its delays and dangers, and an epoch of increased artistic voice users will be inaugurated. If such a condition shall be effected, much credit will be due Mr. Emil Sutro for having so long, so patiently, and so courageously fought the battle for vocal enlightenment and emancipation."—Edgar S. Werner, in Werner's Magazine.

That there is such a study as vocal science, apart

from the prescribed rules of singing and oratory, is not generally known. But here we have an "outline of original research" along lines of experiment and philosophy that have their foundation in the principles of the New Metaphysics. As an index to character the voice is pre-eminent, but its interpretation is difficult without knowledge of spiritual science; for, as Mr. Sutro clearly shows, vocal utterance is not a mere physically vibrated air current. In the human race especially, it is a phenomenon of soul activity-an echo of thought-having its origin, not in the larynx, but in the psychic principle known to all students of the Science of Being. Speech is a faculty rather than a function; and its cultivation as taught in this unique book, is more a matter of mental broadening than of vocal-cord training. For this recognition of the spiritual element in all true art and science, the author merits the commendation of the metaphysical world, and for furnishing teachers with the key to accurate instruction he is entitled to the gratitude of all schools of voice culture.—John Emery McLean, in Mind, New York City.

"I know many of your experiments are valuable. Some I have tried and found true, and some which I have tried have given me no results. I am going over the book again, and propose to keep at it till I am satisfied. Please, Mr. Sutro, do not be impatient with me, or with others in our profession. We take up things slowly, and when anything proposes to revolutionize our whole work, we are very liable, and naturally—to want to be deliberate. I know how seriously in earnest you are, and to one who feels that he has

- "Please accept my sincere thanks for your kindness in sending me a copy of your new book, 'Duality of Voice.'
- "I have read it with very great interest. I am going over it again and shall study it. There are many things you say that are helpful to me; there are others that I do not understand, because they open an unexplored country to me, but they have set me thinking, and I thank you very much for the impetus given.

"I am a teacher, and am grateful for such original ideas as you have produced.

- "Thanking you again, and wishing you great success, I am," etc. (Signed)
- "I appreciate with you, Sir, the immense value of the work from a strictly scientific standpoint, but feel disinclined to endorse the book while representing, as I do, an audience most of whom should be led away from, rather than toward, the abstract or abstruse phases of musical study."

(Signed)

Corroboration of the observations regarding the "larynx of the asophagus." "A friend has brought me your books, and I am greatly interested in the parts of them which relate to the vicinity of the franum linguæ, because that has for many years been of great assistance in my teaching the use of the voice. My observations have been of the wonderfully delicate shaping and deepening, in connection with the pitch and elements of pronunciation, of the little space which the franum spans, and of the exquisite vibration concentrated there; bringing all words into that place, so talked about and sought for by all vocalists, 'the front of the mouth.' It co-operates in its marvellous way with other means, which perhaps are among the accompanying actions of which you speak as forthcoming in future writing. I shall be much interested to see what more you will publish."

(Signed)

I have had the opportunity of getting the loan of your book, "Duality of Voice," from an American student at our conservatory, and I was able to study it and understand your ideas, their development and consequent teaching, and I beg to be classed in the number of your admirers, and as far as my feeble mental powers will admit, of your disciples. It is a great pity it is not translated into Italian.

	(Milan, Italy).
(Signed)		

SOME GERMAN PRESS OPINIONS ON DUALITY OF VOICE.

The author is like a sower who sows his seed and awaits its fruition in the future. He explains frequently that the ideas established by him are to be regarded as the foundation of an edifice whose construction he expects, in time, to arise. What he propounds is conclusively supported by considerations of philosophy and race psychology and comparisons which have their origin in the poetic conception of the universe.

Mr. Sutro attempts to discover the first cause of life. His studies are not to be the strongholds of fact, but he endeavors to discover what lies at the basis of these facts, or phenomena, in order to grasp eternally valid laws.

The book offers anyone who will look into it such varied and such broad outlooks that each subject requires particular consideration. I cannot enter into particulars without exceeding the limits of my task, which is merely to record the general impression left by the book. It is only possible to mention the principal points.

If I have correctly understood the author, the origin of the voice is not only to be found in matter but also in the spirit. As the soul lives in and animates every portion of the body, so also is the voice to be discovered in every particle of the body. From the spirit-

ual significance of the voice the author reasons to the proposition that language is the most important factor in the development of the characteristic traits of races in physical and psychological respect, and that the influence of language is of like importance with that of heredity and climate.

To the well-known theory that the soul creates the body fitted to it, Mr. Sutro opposes the assertion that the idiomatic expression of speech, which is to be looked upon as the soul, is precedent to articulate words, that idiomatic expression has its origin in the soul of a people, while words are to be looked upon as the bodies of speech in which the people clothe their thoughts.

Some of the truths and discoveries announced by Mr. Sutro have been known before his time, only he has reached them anew through independent investigation.—Benno Horwitz, in Der Klavier-Lehrer, Berlin, Germany.

The voice is an expression of the soul—is the soul embodied in spoken sound. The soul lives in and animates every part of the human body. Language is the principal factor that lends character to the various races and nations, which distinguishes their nature and differentiates them one from another. Englishmen produce their tones differently from Germans. The intonation of the Anglo-Saxon will first fall and then rise, because he inhales into the thorax and exhales from the abdomen. The intonation of a German, on the contrary, will first rise and then fall, because he inhales into the abdomen and exhales from the thorax. This is the fundamental cause of the difference in

idiomatic expression between the two languages and consequently of the difference in the national traits of these peoples, physical as well as psychic.

So teaches this book, rich in new, bold, and venturesome assertions, which the learned anatomist and physiologist will read perhaps with many a brow wrinkle. Nevertheless it is interesting, and especially to be recommended to teachers of singing.

The idea that it is possible to find the expression of the individual soul-life in the voice needs wider and deeper investigation. People have been judged by their skulls, their features and their handwriting, why not then by their speech in all its elements?

The reader will soon notice that the author is much impressed with the importance and significance of his work.—Weinhold, in Psychische Studien, Leipzig, Germany.

The author of this book, noteworthy in every respect, lacks neither self-consciousness nor energy, neither profundity nor acuteness of logic, neither essentiality nor the art of fitting everything possible in the circle of his observations into the web of his proof. And yet the book is laid away with the feeling that it has furnished more riddles than it has solved.

The contents of the book no doubt will fill the anatomist and laryngologist with dismay, but must be described as most interesting for the psychologist and useful and stimulating for the vocal instructor.

The author points out an entirely new method of research into tone production which must gain an enormous influence over vocal instruction no less than over the chief judgments of spiritual functions, if the author

succeeds in writing a text book systematically arranged and of equal value throughout.

An adequate criticism of the contents of this "attempt" would early grow into a volume. Much of interest, much of value, but also much that is not made sufficiently clear, and that from the standpoint of present-day science is false, all this is fused together so that "not yet cleared up" seems to stamp the whole, and it would be unjust at this time to pronounce a definitive judgment upon it.

The book is recommended as a stimulating lecture to professional men, psychologists and such dilettanti as do not care to remain stuck on the mere surface of phenomena.—Musikdirector Pochhammer, Die Umschau, Frankfort A. M., April 4, 1903.

A book that seems destined to attract the attention of every one interested in vocal music. The author attacks severely the physiology of the present day in that in its examination of the voice it has attended only to the larynx and its related organs, leaving entirely out of sight the œsophagus, the other important entrance to the internal cavity. He asserts that the latter is not merely a canal through which we furnish the body with material aliment, but that through it a respiration actually takes place. He attributes to the œsophagus the same relation to the abdominal cavity as the wind-pipe bears to the thoracic cavity. If Sutro is right in this conception—and he offers proof whose convincing power is not to be denied—then we must also credit him when he asserts that in the upper part of the œsophagus a vocalization takes place. In the production of every vocal tone, a positive tonal ele-

ment is combined with a negative. The first is represented by the primary vocal tone that issues from the larynx and the latter by the voice of the œsophagus. On the adverse differentiations of both elements rest the idiomatic characteristics of the different languages.

This short résumé ought to be sufficient to arouse a study of this interesting work and a utilization of the teaching therein developed by both singer and singing teacher.

A finished "Method" rightly so called the book does not contain. Nevertheless the thoughtful vocal instructor will find in the work many an indication which he can turn to immediate use in his instruction.

—Harmonie Kalender, Berlin, Germany.

This work, the product of deep reflection and years of experiment, is the first attempt to explain the nature of the human voice by combining the spiritual element with the material. How little the former is considered by others may be gathered by looking over the numerous works on vocal instruction in which the whole subject of putting soul into song is dismissed with the observation that while this is necessary to the attainment of true artistic success, yet it can neither be taught nor explained. We even see Lillie Lehmann in the work which sums up her wide experience, "Meine Gesangskunst," paying attention solely to the larynx and the other vocal organs.

The author of the above work starts out with the proposition that singing as well as speaking is a physio-psychic process and that we shall never be able to get at the nature of tone production while we confine ourselves entirely to one side of the question.

The author furnishes an entirely new foundation for the teaching of singing and the cultivation of the voice. His views, as is often the case with original thinkers, are revolutionary; but in the future no one who would cultivate his own or a pupil's voice can disregard them.

Of no less importance is that which the author has to say about the nature and origin of language. At a time when it is the tendency to regard language as a mere awkward tacking between thoughts, as is shown by Mauthner's last work, it is pleasing to find a man who has the courage to pronounce language the determinative factor in the development of a nation and to bring forward convincing arguments in support of his belief.

German-Americans can see from this book the reasons why the conservation of the German Language in their families is the only means of preserving their nationality; the only way to prevent their thorough Americanization.

This work ought to be found in every cultivated family.—Die Neue Welt, Philadelphia.

The work seems destined to occasion a great revolution in the conception of the nature of the human voice and to cause the development and care of the voice to be built up on a new and natural basis. It is therefore of great importance for singers and singing teachers, but not less so for actors, elocutionists and readers.

Through the light which it throws on the life, the soul, and the hitherto too little regarded relation be-

tween the soul and the body, it takes on a great interest for the psychologist, and the educated generally.

We can recommend with good conscience this profound work to our readers and believe we shall have their gratitude for so doing.—Muenchner Signale, Germany.

Sutro's "Duality of Voice" appeared in 1899 in New York and London and aroused due attention in professional circles. The present translation . . . will no doubt give rise to considerable discussion. There is in the book so much that is new, part of which is disputable and part well grounded, that it must be referred to specialists for criticism. By all means it must not be read superficially. It requires long and profound study. Singing teachers, singers and professors of rhetoric will follow its contents with the same interest as teachers of language, instructors of the deaf and dumb and psychologists.—Breslauer Zeitung, Germany.

Dr. M. R. Steinberg, the well-known physician and specialist, who attends patients suffering from throat diseases in his clinical hospital at San Remo, Italy, and at Meran, in the Tyrol, after reading this book, says:—

"Mr. Sutro appears to me to be a highly sensitive psychological observer and truth seeker.

"It is a well authenticated anatomical fact that the sympathetic nervous plexus of the œsophagus, in the method of its lymph supply, is in relation with the vital functions of the laryngeal plexus.

"Though I am not of the opinion that the stomach

produces the sounds of what is commonly known as the 'Weinbasstimme,' still, I am well convinced that the varying distension of its tissues greatly conduces to the volume and color of the human voice.

"We say to a debilitated person 'you talk from your stomach,' and mean to express thereby an absence of intonation in his voice. Hence, it is not impossible that, conversely, the hollow space of the stomach may participate in producing the singing voice.

"Mr. Sutro's comparative studies of language are ingenious, stimulating—delightful reading in fact—to every student of the physiology of speech. I highly recommend their perusal to persons dealing with either sound or diseased organs of the voice.

"In my international clinic, I have, for the past 18 years, either at one and the same time, or closely one after the other, spoken five or six living languages, meanwhile almost constantly observing my own organs of speech. I have thus had ample opportunity of ascertaining that the larynx and its cords, as well as the face axis, for every separate language assume a different position. I have also observed that the SAME disease, such as pharyngitis acuta, in places which come in contact with the breathing and voice air, assumes a different phase with Anglo-Saxons, Romanics and Slavs.

"Personally, I consider the Formation of the voice as a paramount brain activity. Its culture, as the word Formation indicates, requires, at the least, from five to ten years of continuous, close and many-sided, attention and study.

"The knowledge of what takes place in the prompt

association between throat and brain impulse, is the secret which, when revealed, will be the highest result that can be attained."

The veteran Wagner singer and vocal teacher, says:

"It seems almost incredulous how an amateur, not possessing any knowledge of the technical mode of artistic song production, should have been able to hit the nail so straight on the head as Mr. Emil Sutro has done. He is, as far as I am aware, the first man who has put down, black on white, the very thing which is needed to-day more than ever, in consequence of this great Wagner era: 'the true inwardness of the soul element in song.'

"I had entered upon this same study in my book just published in Berlin, but I have no hesitancy in stating that Mr. Sutro has treated the subject with greater depth, more precisely, and in many respects more correctly, than I have been able to do. I was fairly startled by the magnitude and truthfulness of his observations and I consider him worthy, in many respects, as being considered an investigator of the very first order. The principles underlying his fundamental thoughts are unexceptional, nor are his deductions lacking in lucidity. That his book, DUALITY OF Voice, should cause, with many, a shaking of their heads, would appear natural, but this doubt is not to Mr. Sutro's disadvantage. Pity he should not have fifty more years of life and activity before him. His PIONEER work should be read by all who are honestly devoted to our art."-Anton Schott.

"Duality of Voice" contains the result of the investigations to which the author was led originally by accidental circumstances, but which speedily grew so in scope and significance that he finally gave himself up to them, and now for almost a quarter of a century has looked upon them as his life work.

Emil Sutro, whose cradle rocked in the old imperial city of Aachen, came to the United States at an early age. In a linguistic respect he was, as he thought, well equipped for his entrance into the new world. But he was soon forced to make the unwelcome discovery that his English pronunciation was as far from the true usage as the heavens are from the earth. By reason of the love of research and the thoroughness which he had brought with him as an heir-loom from the fatherland, he set out at once to trace the causes which produced this embarrassing difference.

In order to approximate as nearly as possible the pronunciation of English in the country of his adoption, he turned his attention in the first place to the English vowel sounds, upon which everything seemed to depend, and sought to discover their exact point of origin. These observations, carried on with great persistency, led to the amazing discovery that the method of tone-production in both languages is by no means the simple thing portrayed by the wisdom of the district school, but that the air columns play about the root of the tongue in a most complicated way, and that in this respect the German and English vocalization present strongly contrasted characteristics.

It is obvious that these results were not reached in

a day, but that years of effort and unwavering application were necessary. These endeavors, however, were finally rewarded with results that were as unexpected as they transcended the author's original goal. For the most part his original search for the achievement of a correct, idiomatic English pronunciation was forced into the background as he began to realize the extent and significance of his discoveries.

Sutro was not satisfied merely to observe and describe the vocal phenomena after the manner of a physiologist, but his aim was to explain them. The first important step he took in carrying out this purpose was to establish the fact that not only the part of the mouth cavity lying above the tongue, but also the cavity under the tongue, entirely left out of account by students of phonetics, together with the frænum linguæ, which in contrast to the larynx he denominates the "replica," are of the greatest importance in this respect. Further research led him to the discovery, destined to become fundamental to his theory, that not merely the trachea served the purpose of breathing and tone production, but that respiration took place also through the œsophagus and that in it also tones were produced. "The theory," he writes, "by which our physical and psychic existence is made to depend upon a single stream of air entering through the mouth and nose into the trachea seems to me to rest upon the narrowest and most primitive point of view that men can possibly assume when dealing with the most important questions with which our intellects must wrestle.

"The great tube of the œsophagus opening likewise

into the mouth, exercises similar functions for the abdomen as the trachea for the thorax. Instead of calling attention to the million of openings through which we breathe, pores of the skin, etc., science teaches us that we inspire and expire through a single tube in and out of an airtight cavity—a mechanically unthinkable operation. In accordance with this obscure process the air is supposed to find its way into the thorax and out again after having transferred its oxygen to the blood in the blood-vessels. In the meantime the rest of the body is perishing for want of fresh sustenance, since never a breath can reach it except indirectly through the blood-vessels. To my simple and unlearned intellect it seems that if such were in reality the case—though the blood flow never so fast-in a short time the whole hemisphere of the abdomen would be given over to destruction."

Sutro's whole theory, as we have already said, is based on the recognition of the fact that the œsophagus not only serves the purpose of conducting aliment to the body but that it also serves the higher purpose of furnishing air to the abdomen, and on the discovery of the voice of the œsophagus.

The vibrating column of air that issues from the cesophagus takes its course through the replica described above, which in this relation is seen to be the proper counterpart of the larynx. Every vocal sound that issues from the mouth is made up of two vibrating columns of air, that from the larynx and that from the cesophagus. In every utterance then we must recognize the resultant of the activity on the one

hand of the trachea and the thorax, and on the other of the œsophagus and the abdomen.

Since, then, "through the hemispheres of the thorax and of the abdomen the dual nature of organic existence in general, and of man in particular, is portrayed, the thorax wholly psychic, the abdomen wholly material," it is evident that the voice, which has its origin in both hemispheres, must partake of the same dual nature. In fact, the human voice is the very characteristic in which the duality of human nature is most clearly to be perceived.

That this recognition of this nature of the voice, this so simple and convincing explanation of the vocal function, must be of the greatest importance to those whose calling requires constant use of the voice, as singers, actors, elocutionists and clergymen, goes without saying. The proper understanding of the nature and action of the vocal organism is the indispensable condition of such a use of the voice as will not injure both itself and the organism in general. Only on these principles will it be possible to exercise to the full the capabilities of the voice and use them up to the bounds of possibility.

The hot search of singing teachers of all times and schools has always hitherto been for a method to strengthen and intensify the sound produced. From the "arpeggio" of the Italians down to the "archway of air" by which the latest German school swears, stretches an unbroken chain of more or less fortunate attempts at the solution of the problem. Sutro was the first to penetrate to the core of the matter and to reach a complete and satisfying explanation. It will

now be the duty of the reflective singing teacher to follow up the suggestions made by Sutro and build his instruction on this basis enriched by the materials their experience will furnish. Those vocal instructors who have at heart the development of their art will not willingly let slip the opportunity to do something that will advance it in real measure.

"The conjunction and interlacing of corporeal and psychic factors, illustrated by the breathing from both the thorax and the abdomen, produces the phenomenon we call life." It was reserved for Sutro by means of his discovery to present the most rational explanation of this phenomenon, and it was he who first made an exhaustive study of this vitalization of the material by means of the psychic. The vital phenomenon which in this respect presents the most favorable relation is the voice, which consequently Sutro places at the centre of his system. On the other hand Sutro found that the problem of the voice was so closely associated with the problems of life that it became necessary for him to work out thoroughly the logical conclusions. To a considerable degree this was done in the present book, but he intends to devote a work especially to this subject that will shortly appear also in a German edition.

It is evident then that this book, "Duality of Voice," contains far more than the title would indicate.

It is of course entirely impossible in the small space allotted to this brief review to treat adequately all the subjects touched on by Sutro in the wide reach of his researches. It would not be beyond our purposes,

however, to mention a few of the subjects of special importance:

After Sutro had succeeded in gaining, by means of his studies in the dual nature of the voice, an insight into the dual nature of man-an insight of as yet unequalled clarity-he returned to the starting-point of his studies and reviewed the characteristics of the Anglo-Saxon and Germanic races, and found that the points of difference between these races could all be referred to a different method of breathing and voice production. He sought further for the cause of the remarkable phenomenon "that foreigners who come to the United States as adults, always remain foreigners, while their children born and raised here or even coming here when young grow up to be true Americans," and he arrived at the conclusion that the potent agency that works this revolution of national characteristics is solely and alone the English language. On account of the lively interest which the German newspapers have been taking in American relations for the last few years, the subtile exposition which Sutro has devoted to this question lends it an added interest, and it is to be wondered at that none of the more or less well known portrayers of the "land of unbounded possibilities" has drawn on the works of the man who has devoted the greatest part of his life to the study of this matter and who can claim both countries for his fatherland.

It cannot be doubted but that ethnologists, and especially students of the modern languages, will draw large interest on the capital of Sutro's book. What great tasks are still to be performed can be imagined

when we reflect that the great territories investigated by Sutro in the domain of the German and English languages still remain terra incognita for the Romance, Slavic and other tongues.

The author adds suggestive observations on the subject of the psychic causes of stuttering and stammering, and gives valuable hints for overcoming these anomalies.

The work also gives many valuable suggestions to the instructors of the deaf and dumb, and at the same time demands that they should enrich the subject with their observations drawn from their experience in teaching articulation.

It is hardly necessary to remark that this work is particularly worthy of the careful examination of psychologists. The modern scientist will not be so favorably inclined toward a work that is based on a dualistic conception. The fact, however, that students like Kant, Virchow, Du Bois-Reymond, and Wundt in their ripest age turned their backs on monism and accepted a dualistic point of view should be ever kept in view. Not every earnest scientist will be inclined with Haeckel to search for the ground of this change in a retrograde psychic metamorphosis. But finally Sutro's dualism is of a different kind than that just mentioned and it may well be assumed that the gulf between him and the trend of modern scientific opinion can be bridged.

In closing it must be again remarked that in these few pages only a fragmentary presentation of Sutro's teaching can be given. The exact motivation, the convincing demonstration, as well as the detailed descrip-

tion of the whole course of study which Sutro has gone through, the reader who is so inclined must find in the book itself. He will not regret the trouble. His industry will bear rich fruit. The author will see his best reward in the wider prosecution of his investigations.

F. H. SCHNEIDER.

Berlin, Germany.

