



Semantography Series No. 152

A SUBMISSION ON SEMANTOGRAPHY

as an introduction to the forthcoming demonstration of it
before the Committee enquiring into Secondary Education

by the author C.K.Bliss, B.Sc.

To the Chairman and the Members
of the Survey Committee

Sydney 14th October 1954

Dear Sir/Madam,

Please accept my thanks for your willingness to hear a personal demonstration of my work. I have asked for a personal demonstration, because I have found that anyone confronted with Semantography (which is a new approach to thought) has a lot of questions to ask. Only when these questions are satisfactorily answered on the spot, can the value of Semantography be appreciated. In this manner I demonstrated Semantography to Bertrand Russell, Julian Huxley and a number of other visiting scholars of world repute. They found words of highest praise for it.

Having now been asked to make a written submission prior to my personal appearance, I find myself in my old dilemma. I shall therefore divide my submission into two parts. In this first part, I shall outline the problems which Semantography may help to solve, its new approach and its history. The second part will constitute a deposition of my demonstration, including my answers to your questions. This will enable you to recall any detail of my talk.

Allow me to refer to another dilemma in which I find myself whenever I need to write about my work. As it is with most authors, I am dissatisfied and unhappy about the discrepancy of what I have written and what I want to say. Words have limitations and are inadequate when the uninitiated reader needs to be convinced about a new approach to language and thought. I have found myself tearing up manuscript after manuscript, draft after draft. Having little time at my disposal I have found it best to type down my thoughts on to the wax stencil - for better or worse. This makes corrections difficult, and I beg to excuse any shortcoming.

The world is full of people who are dissatisfied with our present-day institutions, our teachings and our theories. They delude the responsible persons with plans and proposals to alter this and that. There is the danger that I and my work may be classified into this group. I find it therefore necessary to bring to your knowledge a few statements of eminent scholars about my work.

Professor Carleton Washburne, Bertrand Russell, Julian Huxley and others.

Carleton Washburne, Professor of Education, had just 20 minutes to spare between his air schedule. Yet he was enough impressed to write that my work is "ingenious", that "it should be subjected to controlled experimentation" and if these tests prove successful "it could be of great value."

James Henning, visiting British educationalist, had no doubt that these tests will be successful, and he wrote that Semantography "should be developed as rapidly and as widely as possible."

Bertrand Russell and Julian Huxley gave me more than one hour of their time, asked various questions and gave me various tests. In addition they studied afterwards my writings. Julian Huxley wrote among others that "Semantography provides something of real importance." Bertrand Russell went even so far as to say that the men who will further the knowledge of my work will "be performing an important service to mankind." Other scholars have used similar terms.

Tests by Educators in Great Britain.

Professor G. Patrick Meredith, Professor of Psychology at the University of Leeds, and a noted expert on visual education, wrote a 2000 word review in the British educational journal THE NEW ERA IN SCHOOL AND HOME (London, Nov. 1950). He had critical words only for my way of presentation (my old dilemma, see before). As to ^{the} work itself, he classed his review as next to an "unconditional eulogy."

On account of this review a number of educators made some private tests and wrote afterwards that children and youngsters are "thrilled" and "fascinated" by Semantography. However, these were private tests, and there is usually a long timelag between private tests and official tests and recognition - often too long for the life of the man who innovated the new idea. The history of most new ideas and the history of new ideas in education shows that the first originators had to go to a life of bitter trials and disappointments. Only after their death was their work honoured and taught. To cite only a few instances:

Bishop Comenius, inventor of the picture book for schools (Orbis Pictorum) was a refugee, living on the mercy of a few friends. Pestalozzi had to close his private school. Froebel invented the kindergarten, and the authorities promptly closed them down, etc. etc. It may seem extremely immodest and even ridiculous that I somehow make the inference that my work falls into the same class ^{as} those great innovators of education. For this reason, I have cited first the words of eminent scholars who speak of the value to mankind which my work has. Professor Joseph A. Lauwerys, Professor of Education and Head of the Institute of Education, University of London, has approached personally the Director-General of Unesco on behalf of my work. So have other scholars. However Unesco (it was pointed out to me in personal letters by the various Director-Generals of the last 5 years) can only carry out work on a project if approved by a majority vote of more than 60 member nations. They haven't heard of my work. And the Australian Unesco Committee could make a move only if a responsible body has studied my work and made some recommendations. This explains my eagerness to appear before you, hoping that you are men and women of vision who will recognize the pioneering value of a work, (which has already been termed an "Australian invention" in foreign papers) and that you will help it along. This leads to my person, and I feel it necessary to say a few words about myself.

My personal interest in my work

I am 57 years of age. I have no monetary ambition. Indeed, apart from the barest necessities, I spend every penny on my work. I do not seek any official position, no salary and no official recognition, as far as my person is concerned. My hearing begins to fail me. All I want and all I can hope for is that I shall be given the opportunity to pass on my work to competent educators so that it may one day be indeed of "service to mankind" as Earl Russell wrote.

I have already achieved a recognition which seems to be quite unique. A number of great universities and libraries have begun collecting all my writings and have given a standing order for all my future writings, even if they ^{are} typewritten sheets only. Professor Lauwerys has been instrumental in Great Britain in urging and bringing about the inclusion of my 3 books on Semantography (though mimeographed only) in leading libraries. Angus & Robertson in Sydney have instructions to collect my books and my pamphlets, brochures, etc. etc for American libraries. (Harvard and others)

The Sydney University Extension Board has given me the opportunity to address students in the Wallace Theatre, and Professor A.G. Mitchell as chairman of my lecture, said among others in the closing address:

"We have been charmed and fascinated...but I think we have also strongly felt in Mr. Bliss a sincere devotion to an earnest purpose..."

Students of Sydney University have written in HONI SOIT and UNION RECORDER in enthusiastic terms about my demonstration and my work. But as said before - all these are private expressions. What is necessary is an official expression.

You and my work

I find it necessary to mention all this, in order to show that my work deserves serious consideration. It cannot be put aside with a few phrases, however well meant. I approach you, because I live here in Sydney and only here can I be given

the opportunity to expound my work and explain it to educators who may then mould it into the forms for teaching it later on in the primary school, in the secondary school and in the university. The experience gained here would then be a model for schools in other countries of the world.

What I desire from you and what you can do.

I understand that your main task is to examine all the evidence brought forward and then make the necessary recommendations. I wish therefore to emphasize that I do not want at this stage that my work should be introduced in schools. I realize that studies and tests must precede this. All I ask for at present is that you should make a recommendation that a seminary be constituted from a number of young teachers and students, who are eager to explore new ideas in education. I would expound my work to them, and expose it to their criticism. In the white-heat of their controversy should my ideas be tested, and if necessary altered and improved. The proceedings of these discussions should be made available to other educators here and abroad.

This undertaking would not involve the educational authorities in any expense whatever. It would however, enhance the prestige of the educators of Australia, proving that pioneering ideas in education are examined and tested here. There is the old proverb that *Nemo propheta in sua patria honorem habet*, which you have now an opportunity to disprove. It is true that sometimes, in the years gone by, I felt despondent, even desperate, when I found that all the laudatory testimonies from scholars and educators produced no official interest in my work. I hope now that this Public Enquiry to which the Minister of Education has invited the public to come forth and give evidence, will at last bring the long awaited official interest. To turn my work, and my small request mentioned above, down, would be of lasting discredit to Australia and Australian Education, in view of the fact that scholars and universities in Great Britain, the United States and elsewhere are taking an increasing interest in my work.

My work and present-day teaching.

I wish to emphasize the fact that my work is not in contradiction to any teaching and any discipline now taught in Australian schools. As it is with a new idea it does not readily fall into any special discipline. It is part of linguistics, logic, mathematics, psychology, etc., but is it not in contradiction to these sciences. It is an addition to present-day teaching. It is furthermore not in contradiction to present-day moral and religious teaching. On the contrary. If it said that secular schools tend to widen the gap between scientific and moral teaching, I shall endeavour to prove personally that my work can give the children and youngsters, who are the citizens of to-morrow, a new sense of the high destinies of mankind on earth. It will also prove that my work fills one of ^{the} gaps most desperately needed in the education of the people of this world, not only those who are separated by different languages, but even more so with regard to the people who speak the same language, yet do not understand each other. This holds true for any country and also for Australia. A War of Words goes on in almost every family, every community and every nation. We are now convinced that what separates people, father and son, mother and daughter, community and community are ideologies and ideas, expressed in vague words which in turn produces vague ideas in our minds. We hurt each other with words, which influence our thinking, our reasoning, our actions and our relations with other people. We have been taught to pronounce these words correctly. We have been taught to write these words correctly, to use them in proper grammatical order and context. But so far, we have not been taught which words are vague, which words are fallacious, which words have different meanings with different people, which words may not hurt us, but may hurt other people. There was no simple method available to teach us the most important Art:

The Art of Reasoning.

We learn the 3 R's and then we go on learning more R's and Arts. But the most important R is not taught in the primary and secondary schools of the whole world - for lack of a simple method - the Art of Reasoning. How is the situation at the universities of the world?

It could be said that the Art of Reasoning is contained in the discipline of Logic. One should think that there is nothing more important to teach the future leading citizens of any nation than the Art of Reasoning. One should think that the teaching of Logic should be compulsory to all university students.

These university students will become judges, churchmen, educators, lawyers, doctors, engineers, administrators, ministers and prime ministers. All the time they would have to think logically, make logical conclusions and decisions, which will vitally affect their lives and the lives of millions of people. What is more important than to teach them Logic, the Art of Reasoning, Yet, Logic is not compulsory at the universities of the world. Only those few students who subscribe to the study of philosophy must study Logic. This may be interpreted as a silent admission by the university authorities that the methods of conventional, symbolic and mathematical Logic are not so simple as to be applicable to our every-day thinking of our every-day problems. And so, the people are left to go on blundering in their thoughts and often ruining their lives, because there is no easy method available to teach them the most important R - the Art of Reasoning.

An example of a strange influence on our thought.

I have said before that my work is not in contradiction to present-day teaching. It is also not in contradiction to present-day Logic. It is a new addition, something which has not been taught before. I shall show in two examples how our thinking is influenced by strange factors, which scholars are now beginning to realize. These factors are the main cause of our misunderstandings.

It is now common to refer to the peoples of Asia as Asians. To refer to them with the old word of Asiatics is bitterly resented by them. Why? Is there any basic difference between Asians and Asiatics? Both refer to the same entities, the peoples who inhabit the continent of Asia.

This strange influence is found in other languages. In German, the people of China are termed Chinesen, and the people of Japan Japaner. Japanese students in Germany got very cross when referred to as Japanesen in German. In order to understand their anger, let us assume that a foreigner refers to us as Australiacs, or Australiatics or Australese. Many of us would resent it. Suppose a foreign diplomat expounds over the air a new plan for Australia and New Zealand. It is a very logical plan, a very good one indeed. Now, Australia and New Zealand are often commonly referred to as Australasia, and therefore our foreign diplomat uses constantly the word Australasians or worse Australasiatics in his speech. No matter how good his plan is, in the minds of many people in Australia and New Zealand a blockage will occur, an antagonism, a resentment. If this same thing happens in a pub, a brawl might ensue, injuries, even manslaughter.

Apparently the word contains 3 "meaning elements". The first element refers to a territory, the second element to the people living on it, but the third meaning element is undefined. It differs in Asians and Asiatics, Japaner and Japaneser, Australians and Australasians. The one we accept, the other we reject.

I have introduced the new term of "meaning element" because I am a professional research chemist. I have applied the successful method of chemical analysis and symbolism to our thoughts, that is to the words in which mankind thinks. I have analysed language into its meaning elements and I have then written down the meanings in new element symbols. In chemistry H_2O is much more meaningful than the alphabetical symbol formula w-a-t-e-r, or w-a-s-s-e-r, or e-a-u or a-q-u-a. This is the basic idea of my work and therefore the name for it Semantography from semantikos significant meaning and graphein to write.

I refer to the new scientific discipline of Semantics, the theory of meaning. To orthodox thinkers, semantics is a branch of philology and is adequately covered by dictionaries. If we want to know the meaning of a word we open up a good dictionary, and there it is. The foreigner who searches for the meaning of Australian finds for instance in Webster's dictionary as the first meaning: "an aborigine of Australia, a 'blackfellow'". Under Australasia he finds as first meaning "the islands of Oceania." Now he knows. Of course, there are other meanings, nicely numbered. We have come to accept this semantic confusion that a word has many meanings. Let us then realize that there is more to it, that there are strange meaning elements hidden in words which contribute to the misunderstandings in the world and which contribute to hate and strife and war, not only between nations, but also between members of the same community, indeed between members of the same family. We fight and hurt each other with words, until in tragic cases bodily injury results. We often use the same word and mean different things.

Since Breal invented the term Semantique for a new scientific discipline seventy years ago, a few books have appeared on Semantics written by professional scholars. Those books are written on the scholarly level. They are

often incomprehensible to the layman, least of all to the simple people who have only primary school education. These books have indicated the urgent need for this new discipline. They have pointed to the diasters and disastrous misunderstandings which occur in the communication of thought between people. But they have failed to produce a simple method which can be taught to everyone.

Another example of disastrous thinking.

As a boy I was best in my class in essay writing, oratory, etc. I wrote correctly, I spelt correctly, I pronounced correctly. But I remember the thousands of unhappy hours which I spent through the days and often through the tearful waking nights, because someone had hurt me bitterly by a word. We all go through the same experience, but with many youngsters the hurtful words "stick" and influence their lives to the worse. Once we realize this terrible influence of words we will become convinced that a simple method which can be taught in the primary and secondary school is a desperate need for the whole of mankind.

Now we all learn mathematics in school, and because of this, misunderstandings can be cleared up easily. Indeed, housewives and grocers, engineers and scientists can quickly come to an agreement because they have learned the symbols of mathematics and how to operate them. There are voices who claim that the teaching of higher mathematics in the secondary school is useful only to those pupils who later become engineers and scientists. They are few in numbers.

We are told that some primitive tribes know only of one, two, three and many. Consequently they have been tricked and robbed many a times by traders and they have retaliated with murder. The teaching of mathematics can alter this and has altered it. Yet, hurting, tricking, robbing and retaliating still goes on in other fields by using words vaguely related to mathematical thought.

Take the words much and less, many and few, more and most, less and least. Any child learns soon their meaning, years before it learns how to spell and write them. Now realize the hurts and injuries to our souls which happen in almost every home in all the languages of the world:

- "You are talking much, indeed too much."
- "You are thinking less. You should think more and talk less."
- "You are spending too many hours idle. You should work more."
- "You have little regard for me. You care more for others."
- "You do not love me as much as I love you."
- "Whom do you love more, Mummy or Daddy?"
- "You are the most inconsiderate person."
- "You are the least co-operative person." etc.etc.

Once an argument starts with these words, it is like a chain reaction setting off one domestic explosion after the other, until estrangement, ill-feeling and hate makes reconciliation impossible. Marriages break up, families break up, lives break up. Strong minded people will come through, denying any accusation that they are too much or too little or more or most of this or that. But children and youngsters with no defiant spirits will begin to believe that there is truth in these accusations. They will believe that they are too much or too little of this and that and there is nothing they can do about it. In tragic cases they give in. Then gates may close behind them, the gates of the prison or the asylum.

I have mentioned only two examples of how words influence our thinking to the worse. I can give thousands of other examples. Indeed, it can easily be proved that the War of Words which threatens again the peace of the world is a word war waged by demagogues and dictators in which vague and fallacious meanings are used to befog and befuddle millions of minds in the free countries of the world. A simple method which anyone can use in order to recognize such word fallacies becomes not only an important item in any school education. It becomes indispensable for survival. Mankind faces annihilation by itself.

A simple "Algebra of Thought" - a 300 years-old dream.

In the field of mathematics mankind has evolved a "language" which is truthful and on which people of any country can easily agree. Could it be that a mathematics can be evolved which is applicable to any of our thoughts, to any word of our language and of all languages? This thought has dwelt in the mind of the great mathematician Leibnitz (1646 - 1716). He was inspired by the great philosopher Locke who wrote ESSAYS CONCERNING HUMAN UNDERSTANDING, a treatise

on semantics written 300 years ago. Leibnitz wrote his NEW ESSAYS CONCERNING HUMAN UNDERSTANDING, as a discourse between him and Locke. And here he evolved his dream, a simple "Algebra of Thought" so simple that even illiterate peasants and children should be able to operate it. It must be "very popular", "very agreeable to the people." He thought of symbols, like the symbols used in mathematics. "This true method of a Universal Symbolism" he wrote, "would guide the mind as do the lines drawn in geometry, and the formulas in arithmetics." "This symbolism" "would be useful in giving thoughts less absurd and verbal than we now have."

Leibnitz rejected the idea, used in symbolic and mathematical logic, namely the introduction of abstract symbols. He wanted symbols to comply with reality and therefore he wrote that this "very popular" Algebra "might be introduced if small figures were employed in the place of words, which would represent visible things by their lines and the invisible, by the visible which accompany them." In short, he demanded pictorial symbols "for rendering our conceptions more real." However, he himself did not attempt to draw up any of such symbols. But he let Locke answer to his dream: "I think these thoughts will some day be carried out, so agreeable and natural appears to me this writing...for rendering our conceptions more real."

For 300 years, Leibnitz's idea has been considered impossible to realize. In 1922 C.K. Ogden and I.A. Richards of Cambridge wrote in their THE MEANING OF MEANING that "Leibnitz speculative construction...still remains where Leibnitz thus left it." In 1941 Frederick Bodmer and Lancelot Hogben wrote in THE LOOM OF LANGUAGE that Leibnitz's idea has been realized in the field of chemistry which has "a vocabulary of ideographic and pictographic symbols." Indeed, boys and girls in the high schools of the world have learned to operate the symbols of chemistry. Anyone who knows a bit of modern chemistry knows also that all the advances in medicine, hygiene, technology, science, which have brought health and better living conditions to mankind have been made possible because chemists have evolved a chemical Semantography, a "meaningful writing" more meaningful than the alphabetical writing in any language. The search for new materials is based entirely on the structural symbolism of chemistry. Similarly, the great advances in electronics are based on a pictorial symbolism which radio technicians and mechanics of any country can understand and operate.

I am a research chemist who worked in the electronic industry. This explains the fact that I have attempted to apply the symbolism, used in these fields so successfully, to the whole range of language. Scholars in Great Britain and the United States have testified that I am the first man who has realized the 300 years-old dream of Leibnitz. Professor Oliver L. Reiser expounded my work in a lecture to the American Association for the Advancement of Science in Philadelphia 1951 in which he said "Bliss' heroic work...he realized the ambition of the great mathematician Leibnitz" (see New York cable in the Herald of January 1, 1952 and article January 2). The Boston Monitor wrote about it as an "Australian invention" of an "Australian inventor." Shall it happen again that an Australian pioneer cannot find recognition in his own country? This is the basic issue underlying my appearance before you.

The second aspect of Semantography

Mathematical symbols, operated according to certain rules, have a second aspect. They are independent of any language. Indeed $1 + 2 = 3$ has the same meaning in any language, just as H_2O means water in all languages. Leibnitz realized the advantage of universal symbols, they would be understood by people of all languages. And therefore he wrote that "this would be of service for easy communication with distant nations." But he realized that this would be only a happy by-product. The main advantage is the "Algebra of Thought." Now that I have drawn up pictorial symbols in accordance with Leibnitz's demand, people who do not take the time to study it, thinks that it is just a "picture language", another oddity in our odd world. For this reason I have enlarged on the testimonies of eminent scholars and I have only indicated the problems which my work can solve. The symbols must be explained personally, and I ask you to give me this opportunity. In helping this work along you will, in the words of Bertrand Russell, "be performing an important service to mankind."

Yours sincerely

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