THE SHROUDED SECRET
TO THE
COMPUTER PROGRAM OF THE HUMAN MIND

BY: ROBERT L. BLACKBURN

The key that will finally open the door to the construction of the first computer model of the human mind is not some entirely new, yet to be envisioned discovery, but rather the revival and re-assessment of an old and already rejected idea. If the human mind is to be programmed, the artificial intelligence (AI) experts must resurrect and re-examine the possibility that the mind is indeed directed by a program for "survival."

The possibility that the human mind, like all other living things, does operate on a program for its own survival has been proposed before; but, not knowing how to design and build such a program, it has been much more convenient and far safer for those given the responsibility and resources to develop a computer model of the brain to simply deny the existence of this or any other single program directing human thought. If no program exists, how can they possibly be blamed for not reproducing it?

Fortunately for the empirical scientists, and unfortunately for the rest of the world, the denial of a single program directing human thought is made quite easy by the cursory implications of the principles of evolution. At a glance, the acknowledgement of such a program would appear to be putting the cart before the evolutionary horse, or, as Dr. Marvin Minsky at MIT puts it in his The Society of Mind, like graveyards or junkyards drawing dead bodies or wrecked cars to them. What Dr. Minsky and the others seem to overlook, however, is that the human mind, unlike these lifeless objects and entities, is alive and driven internally to stay alive. Thus the mind could very well have a program to continue underlying the multitude of more obvious programs selected by evolution that define the nature of that continuance.

Until mankind has a better understanding as to how the first life came into and remained in existence, it would seem imprudent to reject totally the possibility of some type of survival program always lying beneath all other programs of all living things, regardless of how badly this may appear on the surface to contradict evolution. In fact, the development of a computer model of the human mind based upon a program for survival might be what mankind needs to understand some of the many mysteries about the beginning of life. Even if there is no intrinsic program in living things directing them to continue, still survival can serve as the foundation for the computer mind - not in spite of, but precisely because of the implications of the evolutionary process. Regardless of whether the thousands of subprograms now controlling human thought and action are directed continually by a behind-the-scene, built-in program for survival, when taken in total, by definition, they themselves comprise a de facto survival program.

Again, such a concept wreaks havoc on the minds of the empirical scientists, but the fact remains that the sum total of all the programs of any present brain, having been arrived at through evolution, does constitute a program for survival. So, rather than attempt the near impossible by seeking to recreate all the many subprograms that contribute toward survival, the programmer will use survival itself as the basis for the program of the mind. This is especially appropriate for the abstract thought process of the human mind, as many of brain's programs deal with pleasure seeking and pain avoidance, which would have no inherent relevance to a machine that can't feel.

Another significant factor indicating the feasibility of designing a model of the human mind based upon a program for survival is the human mind's ability to be aware of its own existence, and then associate symbols of symbols (words) with its existence, its pleasure, and its pain. While this capacity in permanent society seems to lead also to the eventual corruption of the mind's survival program, the child's recognition of his or her own existence allows the conscious thought process in humans to align with the brain's subconscious storage facility to file and access these symbols of symbols.

Since the computer lacks the capacity to actually become aware of its own existence, this unique human phenomenon will be provided by the programmer via seeding into the Conscious Thought computer the permanent data statement, "I exist." Then, the program will be designed to search continually and select from among incoming data from the operator and its Subconscious storage computer the configuration of related data that produces the highest possible positive Expected Value for existence when linked to the seeded "I exist" statement. Essentially, that will produce in the machine its program to survive - and its ability to "think."

I did not set out initially to find the secret to the program of the human mind. In fact, years ago when I began my inquiry into this area, I don't remember ever having heard of "artificial intelligence." All I wanted to do was to explore for myself, and for the sake of my children, the possibility of there being some reasonable explanation for mankind's current unreasonable behavior. Before accepting the proposition that it was simply mankind's nature to be "evil" and self-destructive, I wanted to satisfy myself that there wasn't perhaps a more logical reason for mankind's present illogical acts - a reason depending more upon what I'd observed to be the cause and effect nature of the universe than upon some convenient, yet monumental leap of faith.

Not being a scientist, and relying more upon deductive than inductive reasoning, I started with two basic assumptions and a single question. The assumptions were: 1) The universe does operate on a system of cause and effect; and 2) The world is crazy. This last assumption may cause some to temper my offering with an added measure of skepticism, but everyone at some time or other has probably made the same observation, if only jokingly. For a working hypothesis, I simply took it seriously. Then, based upon these two assumptions, I asked the question: What would "not crazy" have had to be in order for it to have had to end up "crazy"?

If the earliest humans had been programmed as those found in every society today, mankind would have destroyed itself in its very beginning, long before fixed societies. No, mankind's present modus operandi is not its natural programming. Understanding this and realizing that similar self-destructive behavior of varying degrees is found in all societies, I began searching for configurations of the mind that would cause each and every society to develop such behavior. At this point, it occurred to me that "society" itself was the common denominator linking the insanity found around the world. There is little evidence to study human behavior before this species moved into fixed societies; but in fixed societies, deceptions became not only possible, but inevitable.

Given what little I did know about the physical and psychological propensities of the mind, it finally occurred to me that the one program that invariably must end up working toward its own destruction, ironically, would be one programmed initially for its own survival. Such a program would not only be susceptible to the deceptions possible in fixed human societies, but, given the very nature of the human mind, would be unable to defend itself against the deceptions of society. With the aspirations and fears that accompany abstract human thought, the mind was defenseless prey for societies' manufactured and passed-down values and beliefs - which subverted the mind's survival program, and, in some cases, became more important than survival itself.

As societies grew more permanent and learned to maximize the ability to alleviate psychological fears and enhance psychological anticipations through self-inflicted deceptions, a deceived survival program became confused about exactly what was supposed to survive, and unwittingly begin working for the survival of things other than a continued, pain free and pleasurable survival of itself, its family, and its species. Through the reprogramming made possible by fixed societies, the human mind was, and is caused to seek the continuance of a number of things that contradict and override its original programming to survive.

Exploring this idea further, I realized that the human brain runs an Expected Value on the survival of something for every decision it makes. Granted, in a world now permeated with deception and confusion, it is difficult at times to determine just what it is that the brain is seeking to have survive; but it continues to run its Expected Values all the same. Using this Expected Value concept, the Conscious Thought computer of the model will initially be programmed to seek to positively enhance the Expected Value of a seeded "I exist" statement. Eventually, as the "I exist" statement becomes linked to other data and functional locations, the computer's Expected Value program will temporarily operate on a variety of data sets seemingly unrelated to survival; but, ultimately, these will all have some linkage to the program's "I exist" statement - and thus to its survival. The programmer will be able to trick the computer by causing it to search for something other than its own survival; and, from doing so, will learn much about what happens to the human mind in society.

In addition to the Conscious Thought computer, there will be parallel connections between it and two other computers, a Subconscious storage computer and a Rote Memory computer. These three will communicate with one another continually. Unlike the Conscious Thought computer, the Subconscious computer is only a storage facility, and will not be concerned with the Expected Value of its existence. Instead, it will be programmed to receive, store, retrieve and transmit data based upon the number and circuit intensity of relationships among pieces of data, sets of data, and functional locations for data. Basically, the Subconscious computer will store and retrieve data based upon those identifiable relationships between and among abstract symbols that make all languages readily translatable into all others. As **human language itself is a graphic representation of the abstract thought process**, the task of building a model that emulates this process is not simply to design a program that manipulates language in ways that solve particular problems, but rather one that derives its very structure from the language(s) that it will use.

The Subconscious computer will be programmed to track all possible known relationships between and among the various ideas, objects and activities that humans have perceived and named already. This computer will store and retrieve its data based upon such functional relationships as "actor, action, acted upon, description, definition, owner, owned, etc." In <u>The Computer Program of the Human Mind,</u> fifty such relationships are identified, but I'm sure there are more.

When a set of symbols of symbols (words, numbers, punctuations, etc.) appear in the Conscious Thought computer, these will be converted to a functional format and sent automatically to the Subconscious and Rote Memory computers. There, depending upon the relationship of these symbols to each other and previously stored symbols, other data, circuits, and functional locations will be activated in both the Subconscious and Rote Memory computers. The Subconscious computer will be programmed to transmit back to the Conscious Thought computer any highly activated linked data and data locations, including interrogative pronoun locations related to the data that have missing information. This will give the Conscious Thought computer's Expected Value program the ability to ask questions and obtain additional needed data from both the Subconscious computer and the operator.

As the new data is received by the Conscious Thought computer, and as this computer works its Expected Value program on the data, additional data will be transmitted back and forth between the Conscious and Subconscious computers until some programmed point of stabilization triggers the Conscious Thought computer to transmit whatever data it holds at the time to the operator. This, in a nutshell, is basically how the computer will "think."

The Rote Memory computer will be connected to both the Conscious Thought and Subconscious computers. The part(s) of speech for each incoming symbol will be stored here, and will allow the conscious thought computer to convert the grammatical transmissions received from the operator into the functional form needed in both the

Conscious Thought and Subconscious computers. Also, this will allow the Conscious Thought computer to convert functional data back into its grammatical form for display. Since the initial model will have no perceptive devices, the identification of each word by its part(s) of speech will enable the computer to use correctly the symbols that the human mind, with its body's sensors, has already developed for objects, actions, and ideas. There is no need to reinvent the word, "wheel."

I realize that this is a very brief and crude overview of how a computer model of the human mind might operate on a survival program, but this is intended only to provide the reader with some food for thought about the possibility of such a program. As noted above, the machine can't feel. Thus, there will be no attempt in the initial model to account for the pleasure seeking or pain avoidance programs of the human brain. However, since the survival program of the human mind often operates in contradiction to these programs, the computer mind can operate without them.

Presently, it is not the difficulty of the task that keeps the computer model of the human mind from being built, but rather the refusal of those in positions to build it to even consider a program based on survival. If the AI experts continue to reject categorically this possibility, at least they will remain right about one thing; a computer model of the human mind can't be built.