

GLOBAL COGNITIVE THEORY

VOL. IV WILLPOWER AND ARTIFICIAL INTELLIGENCE



Museum of future science

M^a José T. Molina



Hobbies: chess, padel and philosophy among others

María José T. Molina is the author of all the Molwick publisher books.

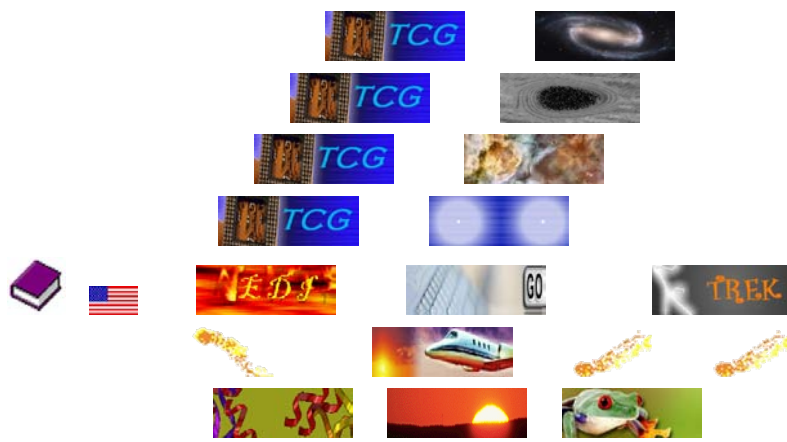
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Moreover, it is interesting to note that these links are almost always accompanied by links to Wikipedia or pages such as National Geographic.



The only antidote for the egocentrism
of pure reason is Love.



M^a José Tiberius Molina

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GLOBAL COGNITIVE THEORY

**WILLPOWER AND
ARTIFICIAL INTELLIGENCE**



WILLPOWER AND THE DECISION-MAKING PROCESS

1. Evolutionary psychology and willpower

The fourth online book of the *Global Cognitive Theory* is *Willpower, Decision Making Process and Artificial Intelligence* and it is an attempt to explain or to get closer to the essence of the living being from a scientific viewpoint, whilst also taking into account that it is a common topic in philosophy.

In the printed edition of the *Global Cognitive Theory* it is included the essay about experimental psychology: *EDI Study – Evolution and Design of Intelligence*.

The scientific nature of this book is due to the connection with what's written in the other *Global Cognitive Theory* books about cognitive processes of the brain and evolutionary psychology, largely confirmed by the aforementioned *EDI Study*.

One must remember that the *Global Cognitive Theory* is an extension to the psychology of the new perspective of life and the living being, given by the *General Theory of Conditioned Evolution of Life*.

Not in vain, already included in this evolutionary theory are ideas about the philosophy of life and the definition of life. This is all necessary, as if one means to explain the evolution of something; one must have a more or less clear idea of what one is talking about. At the

Willpower Womoon



very least, one must try to get close to or limit the definition as much as possible.

The fundamental characteristic of life, according to the *General Theory of Conditioned Evolution of Life*, is precisely **freedom**; an aspect that presents itself through living being's free will.

Therefore, if one has not understood – which is not to say that one is not in agreement - the most important propositions of the two theories previously mentioned, it will be difficult for one to completely understand some of the more complex ideas described in this little book about evolutionary psychology, willpower and the essence of the living being.

As well as this introduction, this book about willpower has four additional chapters. Two of them concern the decision-making process, analyzed from a descriptive and scientific point of view; the other two are about the concept of existence of the living being, from a philosophical or metaphysical perspective.

The decision-making process is studied from the source of our wishes, ideas and thoughts; together with the various mechanisms of willpower formation, such as automatic decisions, reflexive and semi reflexive actions and decision processes based on majorities, which end up configuring true political representation systems in the brain and groups of neurons.

A relevant characteristic of willpower and decision-making processes is that they are dynamic equilibrium systems, that is to say, given the same external conditions it cannot be guaranteed that the equilibrium point will be the same. We are talking about expert systems with dynamic equilibrium, which incorporate the result of earlier life experiences.

A particular case would be emotions, which are no more than unconscious responses to certain stimuli which identify the

presence of a complex situation, requiring a fast answer and for which there is not enough time to satisfactorily study it.

Additionally, I have included some personal thoughts on partial aspects of schizophrenia related to evolutionary psychology, willpower and the decision-making process.

The fourth chapter is about the human being, feelings and willpower, given that they are concepts that are closer to the human readers. However, in fact it refers to the living being and the **vital impulse system**; due to the fact that, according to the proposed evolutionary psychology, feelings and willpower are inherent elements of life.

In order to avoid byzantine discussions, a terminological consideration is that if I see emotions as neuronal mechanisms of a scientific nature, I will consider feelings as belonging to the realm of philosophy and metaphysics.

At this point, we get to the most interesting and poetic part of the previously mentioned theories, *the special and temporal discontinuity of the existence of the living being*.

The definition of **artificial intelligence** is the last challenge posed in this book about cognitive psychology and willpower.

I hope you find useful the ideas I have shared during those moments in which we all brood, our minds and our hearts, about which we are, where we come from and where we are going.

2. The decision-making process

A dictionary defines will as "*f: the potential of the soul in whose virtue we tend to have a positive or negative sense towards the goals proposed by the intellectual knowledge*" or the "*Free will or determination*".

There are other meanings for the term "*will*", but the previous ones are those that interest us because they show its essential nature; this is a quality that clearly supposes the expression or the exercising of the internal liberty of all living beings. Some authors such as **Schopenhauer** ascribe will to human beings, animals, plants, and even objects.

Remember that for the GTCEL "*The essential characteristic of Life is Liberty*". Although, normally, I have talked about human beings for reasons of convenience, the GTCEL also attributes liberty provided by the autonomy of will to objects, even if humans are not capable of detecting it. It is no more than a topic of the philosophy of Life.

In the *decision-making* or will-forming processes, internal and external elements influence the individual. The present commentaries refer to the internal factors of the decision-making process, without trying to propose a detailed study at any time.

In reality, it deals with extending the line of argument about the functioning of human intelligence and brain memory to the processes of creation of will with the goal of obtaining a better characterization of our own nature.

In the first place, we will broadly examine the phases of the decision-making process. Afterwards, we will make a few points about the complexity of the decision-making system that will allow us to deal more easily with the difficult subject of the active self-directed person.

2.a) Origin of desires, ideas, and thoughts

On many occasions, we do not know the origin of our desires, ideas, or our own thoughts. *Not to mention our feelings!*

Independently of what we commented on about thoughts in the second plane, it seems as if there were a retrieval system of ideas and the brain selects that which receives more votes or is presented with greater intensity to study and develop.

Alice in Wonderland (Public domain image)



Let's suppose that a cell would like to or needs to have more water; the body will provide it with more water with the appropriate mechanisms. But when many ask for water, the water will start to become scarce and the desire to drink water will appear little by little. This desire will be made conscious at a particular time, depending on the consciousness' other priorities. For us, *all of*

this process has remained hidden!

As is typical, the subject is more complicated than what it seems at first glance; for example, when faced with the same initial sensation, smokers may want to smoke instead of drinking water.

In the world of ideas, the same thing happens. All of sudden

we find that we have initiated a series of reflections about a subject but we do not know exactly when or why. If we think about it at length, and if we are lucky, we will manage to figure out why.

Something similar, but not the same, happens in the trickier realm of feelings; for example, laughter and tears normally appear without direct control on our behalf. We can try or manage to laugh and cry, but only indirectly, by reproducing the conditions that provoke them.

2.b) Reasoning and thoughts

A second stage of the decision-making models, or of a generation of will, is the evaluation of the goal that requires a decision by means of *reasoning and thoughts*. There will be a combination of logical processes and utilization of memory.

As we have commented on in previous sections, the information verification method is one of the methods used in decision-making processes; the functionality of the neuronal networks allows for a great flexibility in the application of the different variants of this method.

Normally, billions of neurons are involved in carrying out the decision-making process and they are located in different parts of the human brain.

Although strictly speaking we are separating this phase of decision-making for expository reasons, nothing prevents it from being produced simultaneously in certain cases. If something is providing neuroscience with flatness it is that the cerebral cognitive and mixed processes, such as emotions, are very flexible and variable in their structure and specific development.

Likewise, the cognitive processes and emotions are parallel produced and affect each other; furthermore, they can decisively influence the situation, especially through emotions. Therefore, some contextual elements such as alcohol or other drugs are considered vices of will.

Particular emotions can also act as vices of will that are produced in the face of situations, at first independently, but due to past experiences certain automatic reactions have been saved.

It is very possible that our brain never ceases, at least while we

are conscious. It seems to have a **line** of pending reasoning and thoughts so that when one is dealt with, another is immediately selected according to its urgency or any other criteria.

In other sections, we have also cited the work that the human brain performs, and its importance, while we are sleeping.

2.c) System development and political decision-making

It seems as if there is no exclusive decision-making centre in the human brain. In fact, there are acts called reflexes that are carried out by our entire body. Also, modern biology teaches us how the body's different organs and cells emit signals and communicate between one another.

Theory of decision (Public domain image)



If there were a decision-making centre, you could say that this is where life is found, and the rest would be nothing more than a type of somewhat complicated machine. Of course, we would have to ask how many cells are in this centre and which of them have the power of decision. More so, *what part of this hypothetical cell would really be the part that makes the final decision?*

An interesting characteristic of the decisions that we make is the degree of confidence we give them, in other words, how convinced we are of the decision and the stability of a specific

decision.

Sometimes we are obviously convinced, other times we are not completely sure about everything, and other times we feel very insecure about the decisions we make.

This effect can be clearly observed in decision-making processes that are made recurrently. It seems reasonable that decisions made with total security are maintained over time by means of predetermined systems of development; however, this is not the case. Sometimes people change their mind, even in the short-term, in spite of their initial confidence in the stability of the decision adopted. An interesting topic for the *theory of decision*.

Our will can change in spite of the fact that the information has not been altered and the same logic has been employed; this deals, in some form, with the slightly schizophrenic side in all of us.

A model of the decision-making processes (that can explain and integrate the possibilities stated in the previous paragraphs) should count on expert systems and systems of control. That is, it may be something like development of dynamic systems similar to a country's political system.

In normal situations we can find decision-making processes such as:

- **Automatic decisions**

A multitude of small decision-making processes are made unconsciously due to the development of systems of information having been produced that identify necessary and sufficient parameters. Using our example, these would be all of those decisions that do not follow parliamentary procedures or are not dealt with by the government because they lack sufficient organization or the existence of previous laws on the subject.

▪ **Reflexive and semi-reflexive acts**

In dangerous or emergency situations decisions are made immediately; they are then evaluated afterwards, and if needed, the guidelines for future behaviour are changed or adjusted with the development of dynamic systems.

It is easy to observe the parallelism with the functioning of a modern state, although the danger or urgency would be slightly fictitious at times.

▪ **Overall immediate consultation**

It is something like if each and every one of our cells voted on a particular subject. A priori, it is one of the best systems and supposes a direct democracy without any type of filter.

It would be the equivalent of a referendum. A large power of information transmission is required to carry this out, especially if we are speaking about billions of cells, and the transmission occurs often. The dynamics of complex systems will surely limit the use of this type more than necessary.

▪ **Representation**

- Simple majority
- Reinforced majority

It is assumed that nature has resolved, or tries to reasonably resolve, the problem in regards to the minorities in the theory of decision.

- Organic - territorial - functional

Other problems that are still considered normal situations can be resolved with these types of representation. They not only deal with respecting the minorities but rather recognizing their special relevance

in particular subjects.

• **Other channels that take in specific situations**

The equivalent of a political system could be called factual powers.

However, certain behaviour does not seem to follow the indicated guidelines of the theory of decision; the model needs to integrate more elements that help to explain some decisions that, in some fashion, express important alterations of a person's character.

We are referring to **vices of will** that alter expert systems or systems of control that make up the system of dynamic equilibrium of will such as:

- *Sicknesses*
- *Drugs*
- *Other internal chemical processes*

Unfortunately, although it cannot be in any other way, this type of example is also found in conventional political systems.



When **Princiosa** finished the book,
she went to the kitchen,
speaking to herself,
to prepare the afternoon snack:

– I am hungry.

Me too.

I am going to eat.

I agree.

No need! –





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