

GLOBAL COGNITIVE THEORY

VOL. II INTELLIGENCE, INTUITION AND CREATIVITY



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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.

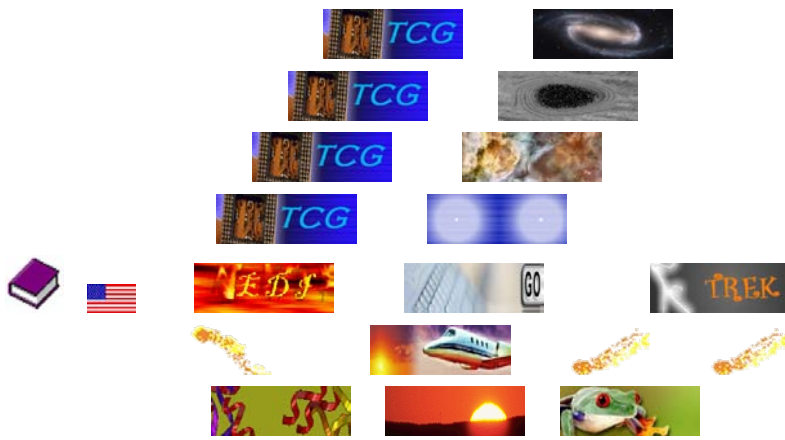
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Moreover, it is interesting to note that these links are almost always accompanied by links to Wikipedia or pages such as National Geographic.



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



M^a José Tiberius Molina

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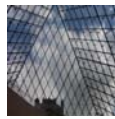
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GLOBAL COGNITIVE THEORY

INTELLIGENCE, INTUITION AND
CREATIVITY



INTELLIGENCE, INTUITION AND CREATIVITY

1. Theory of intelligence

This second book on the *Global Cognitive Theory* is dedicated to the different meanings of the word intelligence and it defines **the elegant intelligence** as an active subject of knowledge management or popular concept of normal intelligence; this is, without pseudo-scientific refinements whose only aim is to deny the existence of said brain capacity.

I call them pseudo-scientists because for me it is obvious that this mentioned capacity exists and following **Galileo's** scientific method or, if preferred, the *Veus vei* method discoursed in *Global Scientific Method*, it is not necessary to demonstrate what is obvious; besides, sometimes it is not even possible to do so.

Theory of relational intelligence Pyramid of Louvre museum



In the introduction of the first book on the *Global Cognitive Theory, The Human Brain and Computers*; it is discussed its general context within the books about evolution and cognitive

psychology in Molwickpedia, which have all been included in the table of related links.

In addition, in the section called *Global Cognitive Theory* included in the book *The Human Brain and Computers*, we can find a brief summary of all the four books that make it up. Besides, the main experimental psychology studies related to said theory are therein mentioned.

Chapter II of this book about the theory of intelligence, intuition and creativity tries, on one hand, to criticize the multiple concepts that are tried to get associated with the word intelligence, like the famous concepts of **Howard Gardner's** multiple intelligences and **Daniel Goleman's** emotional intelligence. Likewise, on the other hand, it also tries to establish a definition that will include the essence of the popular concept of normal or general intelligence; in other words, when it is said that a person is intelligent.

Within the different serious concepts existing in the theory of intelligence, the capacity for making abstract relations has been chosen as the most appropriate definition.

A deepening into the theory of intelligence and into the knowledge about the conditions and mechanisms of these brain functions will lead us to the definition of conditional intelligence and to point out a very important special case: the answers reliability from the manager of said capacities.

These clarifications allow us to approach the concepts of intelligence in a strict sense, G factor, and discuss some particularities about the male and female brain. The cognitive capacity manager as a whole would be named therefore, for obvious reasons, as elegant intelligence.

Chapter III focuses on the most relevant types of operational conditions regarding the reliability and speed of the answers obtained by the intelligence manager. It is worth pointing out

that due to the context of the *Global Cognitive Theory*, this analysis about the theory of intelligence is innovative.

Firstly, the automatic answers would be found, such as preconceptions or emotions, since, due to their nature, they must be answers of the unconscious.

In the second place, completely safe functions have been included, such as logical inference or the so called mathematical memory.

After that, if the requirements of reliability are reduced, we would come across intuition and normal memory.

Then, an approximation to the special cases of language and creativity is carried out, emphasizing the impressive speed as well as the reliability, which is not very high, of the first one; and the complexity of general relational functions and the existence of very powerful relational functions in a concrete matter in the case of creativity.

In mentioning the context of the *Global Cognitive Theory*, I was referring to the relation with the evolutionary psychology and, more specifically, with the *General Theory of the Conditional Evolution of Life*.

The common discussion between the effects of inheritance and the environment in the theory of intelligence is considered in **chapter III** of this online book.

In the first part, we can find a review of the studies related to the genetic inheritance of intelligence and its interpretation in favor of the *Global Cognitive Theory*. Two possible methods or intelligence improvement procedures by means of genetic engineering are enclosed in this section.

A second block of ideas refers to the philosophical or sociological motivations opposed to the genetic influence on intelligence without any interest in the scientific truth, even

denying the very concept of intelligence.

In spite of what was previously mentioned, in said chapter III the problems and the complexity of intelligence tests are admitted. Having said that, going to the moon was more difficult and, curiously, only some lunatics actually deny that man has been there.

Another section explains the experimental research difficulties in the theory of intelligence, specially the shortage of data source. This limitation is so strong that it can only be understood thanks to the social sensitivity that a major scientific rigor might entail.

Finally, **chapter IV** exposes the *traffic light metaphor* as an example of multiple concepts regarding the kindness of a car, showing the enormous complexity of possible routes, conditions and times; and simultaneously, the great simplicity of quality indicators when the same words are not used for different concepts.

INTELLIGENCE

2. Definition of intelligence

Colloquial language has numerous definitions for intelligence, and some of the meanings are opposite from what you would expect.

The **doctrine** is very divided and influenced for the social acceptance of its proposals. An author who proposed a definition of intelligence that everyone has a very similar endowment of intelligence and that everyone can become very intelligent would have a lot more possibilities for the publicity and promotion of his/her ideas than if he/she had proposed the contrary.

Another promising and complementary path, different from the previous, is minimizing the importance of the classic concept or definition of intelligence and associating the marvellous word to other aspects of life, such as social or emotional success; so, exaggerating a little, we could find that the lottery could be considered a representation of the winner's economic intelligence or that having lots of *friends* could represent **emotional intelligence**.

These doctrinal tendencies, even the most serious and scientific ones, such as the **theory of multiple intelligences**, suffer from an additional problem, which is that they reach the general public with a fairly distorted content, who are victims of their accelerated acceptance.

In short, I would say to both professionals in this subject and the general public that the false humbleness is not humbleness but rather falseness, which of course does not help scientific development at all, especially in the planning of an educative system. The supposed quasi-equality of the genetic



endowment of intelligence could impede the comprehension of complex social phenomenon...

From the Vox General Dictionary of the Spanish Language, we can stress the following two meanings:

- *The ability to understand, a greater or lesser capacity to know or learn.*
- *A group of all the functions whose objective is knowledge (sensation, association, memory, imagination, understanding, reason, conscience).*

In my opinion, they are good and acceptable definitions in the sphere of language, but somewhat imprecise technically. In the first definition of intelligence, aspects related to learning that do not have much to do with intelligence, such as memory in its distinct dimension of the memory manager, are included. The second is excessively generic.

The reflections made about the multifunctional and multifaceted nature of

intelligence, the conditions or requirements associated to the desired responses and its hereditary nature, allow us to make a conceptual approximation to the different meanings used to propose a new definition of intelligence.

2.a) Relational intelligence

This name is an attempt to gather what we have expressed on various occasions, that we understand intelligence as a capacity for making abstract relations. Therefore, it will be formed by the group of abstract elemental relational functions that allow for any fairly complex relational operation to be carried out.

So, we can cite the following relations as known examples: above / below, large / small, general / specific, deep / high-pitched, smooth / rough, dark / light, matt / shiny, in front / behind, kind / rude, sour / mild, direct / refined, sweet / bitter, intense / light, good / bad, etc.

These conceptual relations are surely not as elemental as they seem. For example, all appear slightly binary, but this is not a necessary condition in order to be considered a basic relation. Also, they can be understood in an increasing linear order, some may be better represented in two dimensions. In any case, I hope that they serve to express what we are trying to say.

2.b) Conditional intelligence

As we have seen, the cognitive functions work depending on the demanded requirements regarding response reliability. Surely we could specify another type of operating conditions for intelligence and we would obtain other classifications for it.

These demands as for its articulation define conditional intelligence for us, indicating that the same group of functions of relational intelligence can assume different conditional intelligences depending on the operative form.

The concept is important given that, on one hand, it provides us with an instrument for identifying certain cases of special significance, and on the other hand, it reminds us that elemental functions are the same when the only variation of the particular case refers to the operative conditions.

2.c) Multiple intelligences

Regardless the mentioned *Theory of Multiple Intelligences* of **Howard Gardner** to consider it somewhat opportunistic or a bit commercial, it seems clear that multiple intelligences or a multiple intelligence exist.

Multiple intelligences will be identified not only by the different types of elementary relations (space, sound, color, etc.) involved but also by the operational mechanisms or any other criterion that we could associate.

The classification of multiple intelligences could be as extensive as wanted because in any act or concept it is possible to find basic relations, although calling intelligence to everything would not make but eliminate its own differentiating concept and, therefore, the same utility of the word intelligence.

In other sections some type of multiple intelligences are dealt with. Below I will point out some cases that are particularly interesting.

2.c.1) Intelligence in strict sense of the word

This is keeping with that shown in the section related to the knowledge manager's secure responses. Strictly speaking, intelligence can be understood as the capacity for making relations but with the added condition of a high degree of reliability.

In other words it corresponds with conditional intelligence



Multiple intelligences
(Public domain image)

when the previously mentioned high degree of reliability is associated with it. The majority of times we mention the word *intelligence* without referring to a specific type, we are referring to this concept in accordance with what we think colloquial language and part of the doctrine constitute.

The verification of responses to obtain the desired reliability implies some specific biological mechanisms explained in detail in the GTCEL book and make the genetic information of the progenitor with lesser potential more significant than the other because it is closer to the common relational functions in both

Generally speaking, I think that the main factors of intelligence perception are the depth and originality of ideas along with the absence of errors in reasoning. *Do not confuse this with those people who do not express their reasoning so as not to commit apparent errors!*

The characteristics of this new type of intelligence may be not easy to understand but it is of the maximum importance to appreciate the new approach to the study of multiple intelligences or, simply, different types of expression of the functional relations.

2.c.2) "g" factor or general intelligence

In this idea of multiple intelligences, the concept of general intelligence is the result of adding the condition that the relational functions in strict sense of the word have to be common to a large quantity of the intellect's processes.

The relevance of this factor is derived from the fact that its measurement is very useful in relation to intelligence in the strict sense of the word. Also, it is the one that comes the closest to the concept of intelligence measured by classic intelligence or typical IQ tests.

These measurements have a great advantage of being

independent of cultural factors because they are based on dot matrix or chart tests.

The study of the hereditary nature of intelligence uses information about IQ that, to a great extent, fit in this category. In any case, if some specific relational functions are hereditary, it is logical to assume that others would also be, but with different mechanisms of expression.

2.c.3) Modern intelligence quotients

Different dot matrix and language test batteries are integrated in just one intelligent quotient and, therefore, they gather in greater measurement the potential of multiple intelligences. Although, as I have expressed previously, I believe it is much better to say that these modern intelligent quotients are closer to the concept of relational intelligence than to the one of multiple intelligences.

To broadly determine a person's intellectual ability they are more complete, but, for me, they suffer from two basic problems: when including language tests, they incorporate aspects other than intelligence in the strict sense of the word, and have a strong cultural influence.

2.c.4) Woman and man intelligence

At this point, I wanted to embark on a delicate subject, that of the possible sexual differentiation in intelligence between woman and man. I would say that there is a general consensus that great differences exist between female and male sensitivity. Consequently, the groups of basic relational functions that support these sensitivities should be somewhat different.

Water-Lily Pond by Monet (Public domain image)



From there, if a determined test of intelligence is used that collects, to a great extent, the feminine sensitivity of men and women, we would have to wait for women to obtain better results and vice versa.

A curious act is that, to some extent, all of us memorize a representation of others where, on top of

their image, we include some characteristics, needless to say, from our point of view. Among them is an intuitive estimation of that person's intelligence.

As this approximation is carried out on a personal scale, it should not be surprising that many women are completely convinced that they are much more intelligent than men, and vice versa. In fact, all men and all women are right from their point of view or scale of reference.

An example of how complicated the subject of sexual differentiation in intelligence between woman and man is would be to speak about the beauty of intelligence and the intelligence of beauty. In a certain respect, both affirmations are correct and, therefore, elemental relational functions that support them should exist. In relation to this subject, without wanting to go any deeper in it, we can cite the existence of certain symmetries.

Another example could be the different results that come out of complicated mathematical calculations if we are working with variables rounded to whole numbers or with decimals. Sometimes one way is better and other times, the other way; but, if the program is very complicated, perhaps both should not, or would not be efficient if maintained simultaneously.

In the calculations used (that were complicated due to their quantity) in the demonstration of the heritability of intelligence, the variables are ordered with different criteria, and the results may sensitively vary depending on the criterion of organization prior to the last variable used.

If the absolute scale cannot be discovered, a good solution is to use a neutral scale in respect to gender for pure convention. This is what some of the most important tests of today do as far different batteries of forms or questions are concerned; through adequate ponderation they achieve that the overall evaluation of the tests to be neutral.

In some cases, the values are corrected with a different scale according to gender; the TC1 test is an example that is based on a series of dominoes.

In other cases, the results are corrected according to age. For ages above 30, the result is compensated considering that there is a fall in performance although not in potential.

In short, it deals with obtaining equality by age in a

conventional fashion. It could also go the other way, that is to say, theoretical inequality. For example, the youngest may be more intelligent due to evolutionary reasons; the statistical work in the annex obtains better adjustments in the studied correlations for an *average* 10% improvement in each generation.

In short, the interpretation of statistical data is not only risky but also this data can be incorrect.

An example of the difference between men and women which is accepted by both men and women with a good sense of humor is the following. Men prefer women with lateral symmetry of 90-60-90 and women prefer an exponential growth of 10-23-10²³ in their man, that is to say, a 10 in intelligence, ... and a 10²³ in \$.

Continuing with the differences and humor, if men had to define a single measurement that encompassed the three previously mentioned parameters, they would use the mean squared error, and women... the sum.

Now that differences are admitted, let us see how we can contribute to some observed differences from a scientific point of view:

▪ **Human life expectancy**

Women have a higher estimated life expectancy between 5 and 10 % than men in most countries. In Spain, this supposes approximately seven years (84 years in women versus 77 years for men). It seems clear that there must be something better in women's constitution apart from the existence of other factors such as a lower rate of tobacco consumption among females, different types of work, etc.

According to the *General Theory of the Conditional Evolution of Life*, the main function of the **sexual differentiation** is to serve as a genetic filter between the information received

from the male and female progenitors. The above mentioned theory also affirms that women provide an intact copy of the genetic information, with the advantage of having its phenotypical viability guaranteed.

Consequently, the filter of two X chromosomes should result in a more stable structure than the one made up by the XY chromosomes. The same argumentation can be used for the rest of the 22 pairs of human chromosomes and to those of other animals with sexual differentiation. It would not be surprising that it resulted in a higher female longevity; explaining, at least in part, the observed reality.

- **Gender differences in human intelligence in the lower threshold**

An interesting issue will be the stability effect mentioned in the previous point about human intelligence in the lower part of the typical bell curve of Gauss.

The *EDI Study – Evolution and Design of Intelligence* detects, in one out of five cases, what it denominates genetic accidents in the evolution of intelligence which are very relevant in quantitative terms.

It would not be surprising either that the important decreases in human intelligence due to said accidents would occur more in men than in women.

- **Gender differences in human intelligence in the upper threshold**

As in the aforementioned case of the dominoes series.

Following the *General Theory of Conditional Evolution of Life*, the *Global Cognitive Theory* and the empirical results from the *EDI Study*, since women do not modify their genetic information and most of the elemental functions which make up intelligence have a genetic nature, the X

chromosomes would have at least a generation behind in evolution with sexual differentiation and two backward generations on average. Unless the X chromosome may pass 100 % updated to the following generation every time it coincides with the Y chromosome, this fact could explain the low female participation in highly gifted associations, in nominations for the Nobel Prize, the few inventions made by women, a lower rate in management positions, etc., without any necessity of restoring to an historical specialism of jobs or being particularly negative towards men accusing them with no scientific evidence of gender favoritism.

In a social way, curiously enough, it seems that this mentioned gratuitous accusation is not rude, although the possible scientific explanation to some specific characteristics of human intelligence, even though it could be real, actually is.

Even though I consider that the scientific nature of the *General Theory of the Conditional Evolution of Life*, the *Global Cognitive Theory* and the results of the *EDI Study* are clear; due to the social sensitivity regarding the matters discussed, it should be desirable to carry out a new *EDI Study -2* on the evolution and design of human intelligence with a bigger sample which may confirm the results hereinabove mentioned and obtain a higher sensitivity and significance of the model for this specific aspect of the update of the X chromosome.

In the page about the *Evolution of Intelligence* included in the book *General Theory of Conditional Evolution of Life*, the new **Darwinotro** experiment, which has not been carried out yet, is herein presented to confirm the results of the *EDI Study* with a very easy methodology.



When **M^a José** finished the book, **Globus** said to
Goblin:

– M^a José must be very intelligent,
because she’s almost never wrong. –

Goblin answered:

– I agree, and *she only talks about what she understands!* –





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