

## **Caves, Temples, Palaces and Bazaars**

### **Building with Jack Hirshleifer's bricks**

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There is more to economic activity than just a bright side and a dark side. There are other ways of thinking, other ways of choosing among strategies, other rationalities, other ethics and other institutional systems. I will propose in this paper to arrange these systems into four layers: Caves, Temples, Palaces and Bazaars. I believe this classification will allow us to better understand some apparently irrational behavior and the way we interact with each other.

#### **Previous warning**

Although different among themselves, all four systems analyzed below are imbedded in each individual of our society. All of us have the power to think and behave under the directions of any of them, but there will always be one rationality prevailing over the other three. Similarly, social groups can also possess all four systems, and can also be identified with one of them –dominant over the others- that they will claim as theirs. Most times the boundaries are blurred.

In this paper I will seek delimitating, classifying and assigning institutions to one or another system, but the nature of that assignation can only be understood within a global approach. I will propose for instance a direct link between family and delinquency that could be shocking. I will also identify communism as a religion. Only a global view of the ideas analyzed here will help us to interpret those links and to better understand behaviors such as the role of “godfathers” in mafias and of revolutionary martyrs like “Che” Guevara.

Each of the four systems has its own historical origin: they all appeared, evolved and consolidated at a specific time of human history, in an environment where those rationalities provided a higher survival value. Nowadays these systems survive and adapt to different environments. Nevertheless, despite the adaptations, they pretty much maintain their basic original features and internal logic. This is what I will explain below.

### **Choosing is difficult**

Any definition of economic science makes explicit or implicit reference to the problem of choosing among alternatives. Economy can be seen as a rationality system, a method for adopting decisions and choosing among alternatives. Rationality is about choosing “the best”. Economic rationality is about choosing the “most valuable”. Any rationality system is eventually a method for assigning values to things when we have incomplete information, a method of ranking the alternatives that we have. We, the economic imperialists –invaders, like Jack Hirshleifer, of the territories of other social sciences- may agree that any form of rationality -any way of choosing among alternatives- is Economics.

The boundaries of rationality have been studied recently from diverse points of view. I hope you will excuse me for using as an example a problem that I studied jointly with J.H. a few years ago.

In conflicts we must normally choose between a “hard” strategy and a “soft” strategy. In environments modeled by the Prisoner’s Dilemma we must choose between Defect or Cooperate strategies. In environments modeled by the Chicken Dilemma we must choose between Hawk and Dove strategies.

Prisoner’s Dilemma		
	Soft	Hard
Soft	2,2	4,1
Hard	1,4	3,3

Chicken Dilemma		
	Soft	Hard
Soft	2,2	3,1
Hard	1,3	4,4

It is very clear in both kinds of conflict which is the best choice when the opponent's strategy is Soft: it will always be better for us to play Hard. The problem arises when the opponent's strategy is Hard. In this case, under the Prisoner's Dilemma the worst option is to play Soft. Under the Chicken Dilemma however, the worst option is to play Hard when the opponent plays Hard as well.

When these dilemmas are repeated along time with the same players, we can adopt reactive strategies that take previous opponent's behavior into account. Although, as Axelrod concluded, in the repeated Prisoner's Dilemma the best option is Tit For Tat, in the repeated Chicken's Dilemma, the best option is Bully.

In real world dilemmas however, we will not always be able to tell a Prisoner's Dilemma from a Chicken's Dilemma. The fact that payments are based on uncertain estimations prevent us from being able to rank the third and fourth positions -which are actually the only difference between both dilemmas.

Anyway, both the Prisoner's and the Chicken's Dilemmas are non-cooperative games, with non-transferable utility and no possibility of communication between players. They are both about a confrontation "against others". But both dilemmas will vanish in conflicts "among ourselves". We can talk and reach agreements. We can share payments. We will always choose the soft strategy when conflict arises "among ourselves".

But who are *we*? This is a different problem. The members of our family? We, the Zoroastrians? We, the subjects of the Babylonian Empire? We, the agents buying and selling in a global free market?

To choose among Soft and Hard strategies it is necessary to know who we are and make our social identity clear. But social identity has always been a problem overlooked by economists, as it has been a field occupied by sociologists and psychologists. Some of them have done a very good job. And,

as J.H. said, when social scientists do a good job, they are doing Economics. Following J.H.'s banner, we will now courageously invade their territory.

### **Caves, Temples, Palaces and Bazaars as social identities**

	<b>Cave</b>	<b>Temple</b>	<b>Palace</b>	<b>Bazaar</b>
Who we are vs. They	Family.	Religious group. Those with the same god.	Political group. Those under the same law	Owners worldwide. Those with something to sell.
Ethics: Being "hard" to "They" is justified	Simple: doubts settled by father.	Complex. Interpreted by priests	Very complex. Regulated. Defined by law.	Precisely measured by estimation of costs and benefits.
Propriety	Familiar	Shared within group	Regulated. Under law	Individual not shared.
Institutions (rules)	Instincts	Traditions	Written laws	Weights and measures
Cultural complexity	Illiteracy	Oral traditions	Literacy	Mathematical
Largest group during	Paleolithic	Neolithic	Historical times (scriptural)	Monetary times

I will use here the word '**Cave**' when referring to the ethics, the rationality and the institutions associated with the family. We, those who live in the same cave, are linked by blood. We will always keep Soft behaviors and strategies and will share our property. We will distrust others. Therefore, when involved in conflicts with outsiders, we will use Hard strategies, or Bully, or at least Tit For Tat.

The 'Cave' is the largest social group in the Paleolithic. It does not require any special knowledge to be a member of our family. Although illiterate, we can distinguish our parents and siblings from outsiders. Our instincts indicate us who should we love and who should we be afraid of, who are we and who are *they*. Cave rules are simple and implicit and do not require much wording. Disputes are settled by the father.

I will use here the word '**Temple**' when referring to the ethics, the rationality and the institutions associated with religious and cultural groups. We, those sharing

the Temple, worship the same god and practice the same rituals. We celebrate the same holidays on the same days, singing the same hymns. Among our fellow worshipers, we will always keep soft behaviors and strategies. We will distrust infidels. When involved in conflicts with others, we will use Hard strategies, or Bully, or at least Tit For Tat. We will attack and destroy infidels in the name of god -and with the help of god.

We will share part of our property and will give alms to our church so that they are distributed among our community. We will practice charity among ourselves and will look after our neighbors' orphans and widows.

There were no temples in the Paleolithic: they appeared in Neolithic times. The Temple is the largest and dominant social group in the Neolithic up to the introduction of writing. Up until then, religious rules were transmitted by oral tradition. They required an effort to memorize chants and rituals. Therefore traditions were kept and interpreted by priests. Rules of behavior and interaction among members of the Temple are more complex than among members of the Cave.

I will use here the word '**Palace**' when referring to the ethics, the rationality and the institutions associated with political groupings. We, those who share the Palace, are subject to the same law, live under the same governments and empires. In compliance with the law we will behave among ourselves with cooperative and Soft strategies. With those who breach our laws we will play Hard. We will invade and conquer our enemies in order to civilize them, to subdue them to our law, and will crush them if they resist.

Since our law is very complex it requires to be written. The law provides the solutions to most potential conflicts among us. A very complex system of lawyers, judges, policemen and executioners will develop, interpret and enforce the law. Our property can be taxed and confiscated on legal terms by the government. In order to know the law, it is necessary to be able to read. In order to be able to recognize the members of our Palace we must know our own

history and that of our rulers –hence, we must know how to read. Consequently the Palace can only be built after the emergence of the written word. Up to the invention of money, the Palace is the largest social group that can be gathered.

I will use here the word '**Bazaar**' when referring to the ethics, the rationality and the institutions associated with the market. We, those sharing the Bazaar, are those who want to buy and -at the same time- have something to sell. Money as an accurate measuring tool –together with other systems for measuring and weighting goods- will allow us to reach agreements among ourselves.

This system does not only require literacy but also some mathematical skills. The Bazaar can only emerge and develop after the introduction of money. In order for the Bazaar to expand, there must be common payment tools available, recognized by merchants under different governments. We will conduct business with anyone willing to buy or sell at an adequate price, whatever their family, religion or country. Property is not shared.

Among ourselves, members of the Bazaar, we will cooperate and play Soft strategies. However, we can switch to other strategies when an accurate calculation of costs and benefits so advise. We will play Hard with anyone trying to get our propriety without paying an agreed price. Sometimes we will also play Hard or Bully with those that do not want to sell what we need.

The Temple includes Caves and allows solving conflicts among them. The Temple gathers all the families living under the same god and with the same cultural traditions. In so doing, it decreases the probability of conflict and increases the probability of cooperation and interaction. The Temple reduces costs and increases profits.

However, the rules of the Temple are not clear. God's will, revealed to our prophets and ancestors, is obscure and requires interpretation by priests. There

is no possibility of communication with those with a different god or a different interpretation of his word.

The Palace includes Temples. The state can subdue peoples with diverse gods and cultural traditions under the same law. Possibilities for interaction and making profit become even higher, and at a lower cost.

The Bazaar includes Palaces. Market overcomes political boundaries globally, only marginalizing those with nothing to sell.

### **Four rationalities**

In the present times, all four rationalities described above coexist inside each of us.

- Sometimes we tend to assign values and choose among alternatives by paying attention only to our basic instincts of love, fear, envy or hate. This is the rationality of the Cave.
- Sometimes we tend to assign values and choose among alternatives by paying attention only to tradition and established customs. Temple's rationality encourages us to imitate others in our cultural environment and to behave following what our religious leaders say is the will of god.
- Sometimes we tend to assign values and choose among alternatives, paying attention only to the law. Our behavior is dictated by the law. This is the rationality of the Palace.
- Sometimes we tend to assign values and choose among alternatives paying attention only to market laws, by estimating the costs and benefits. This is the rationality of the Bazaar.

The four rationalities support each other. The Bazaar requires acknowledgement of the law, the rationality of the Palace. The foundations of the Palace rest on the principles of tradition and authority of the Temple, without which the law could not be sustained. Finally, the Temple principles of tradition and authority are based on instinct, the Cave rationality.

However, although based on each other, the four rationalities coexist simultaneously and independently within all individuals. Given a set of alternatives, there will be four different transitive rankings: one based on instinct, one based on tradition, one based on law and order and the last one based on the mathematical estimation of costs and benefits. The four rankings - although transitive each of them- can be different and conflictive with each other, due to their different systems for weighting costs and assigning values. This is the reason why humans frequently hesitate about which decision to choose. This is the reason why social scientists find behaviors that cannot be explained with just one -their- rationality system.

For instance, let's try to understand the behavior of an individual crashing a plane against a New York tower. This behavior cannot be explained under the Bazaar rationality, as an estimation of costs and benefits. This behavior cannot be explained by the Palace rationality either, as a conduct fulfilling rules written by legal and political authorities. This behavior cannot be explained by the rationality of the Cave, because instincts will tell the individual to turn the plane away to prevent our death and that of others. However, this behavior can be perfectly understood within the Temple rationality. Crashing the plane is a behavior generously awarded by god, because it is his will, and the act will result in benefits -even pride- to all fellow believers. All four rationalities may coexist simultaneously inside the pilot's mind. The individual is aware of the contradictions, but nevertheless solves the problem by accepting one rationality as dominant over the others.

	<b>Cave</b>	<b>Temple</b>	<b>Palace</b>	<b>Bazaar</b>
Do not accept higher	Delinquents. Outlaws.	Fanatics - religious or agnostics (communists).	State apparatus. Lawyers, the military, politicians, civil employees.	
Subjective position rank	4	3	2	1

Whenever possible, we will always try to use the rationality of the Bazaar. Only when this fails or cannot be used, we will resort to the Palace rationality. If both



of these are still not clear, we will then proceed to the Temple and tradition rationality. Only when no other rationality is available, we will follow our Cave instincts.

The Cave rationality seems to be dominant among marginal groups, outlaws and gangs. Somehow criminals do not know or understand the ethics of the Temple, the Palace and the Bazaar. Socially marginalized people -those with nothing to sell, illiterate and with no religious education- are the most susceptible to be dragged by the Cave logic, showing Hard behaviors against individuals outside his family. They have simple rules for internal relations, and inside conflicts are solved by godfathers. Although religious people, politicians or businessmen can also use the rationality of the Cave, for them it will not be the dominant rationality or common way of decision-making.

The Temple rationality and ethics seem to be dominant not only among religious groups but also among secular and atheist groups that share a wealth of traditions, symbols and rituals. Let's see for example the "communion of saints", a Christian dogma stating that any good action carried out by one individual will have a positive effect on each and every one of the other members of the congregation. This dogma is characteristic of the Temple rationality and is contradictory with the rationality of the Cave, the Palace or the Bazaar. But the rationality of the "communion of saints" explains the myth of "Che" Guevara, martyr and communist fighter whose sacrifice in the Bolivian mountains was made for the benefit of all revolutionaries of the world. In any case, the Temple logic seems to be dominant mainly among those that – although with a basic education and training- lack a broader cultural background and have nothing to sell.

The rationality of the Palace seems to be dominant among politicians, the military and bureaucrats. Let's take taxes and legal expropriations as an example. These are methods of transferring wealth based on political rights and power relations. These are beyond the rationality of the Bazaar. Politicians, the military and bureaucrats cannot be at the same time merchants or business

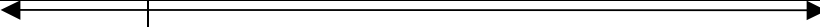
people. These are incompatible occupations, because they are based on contradictory ethical principles and rationality systems.

### **The *homo economicus* and the Economic Theory**

We, economists, have always considered the existence of a unique rationality system able to explain all human behavior -including the instincts of hate, envy, philanthropy and solidarity- as an axiom of our science. In fact, the concept of *homo economicus* has always been equivalent to economic rationality. The *homo economicus* is a description of the individual's economical decision criteria. There have been many and diverse *homo economicus* in the history of economic thought, but all of them were defined by their rationality, their way of ranking preferences. Each *homo economicus* had a unique rationality.

Hayek (The Fatal Conceit, 1988) was the first one to confront this idea by proposing instinct behaviour as irrational and ethics as a kind of semi-rationality, something "between instinct and reason". Here in this paper I propose to go further to acknowledge these four ways of assigning values to make choices as four different economic rationalities.

We, economists, had always thought that one -unique- rationality should -and could- be understood and explained by our discipline. What I now propose is to accept the existence of different rationalities, contradictory among them. I propose to let any hope of conciliation among rationalities aside. What we actually need is a better understanding of the reasons why -and under which circumstances- one rationality is dominant instead of the others.

	<b>Cave</b>	<b>Temple</b>	<b>Palace</b>	<b>Bazaar</b>
	 Territory of other Social Sciences -Traditional Economics' territory			
Analytical tools	Economics of family. Economics of Love (Boulding)	Economics of religion. Economics of Love (Boulding)	Economics of Law. Public Choice, Constitutional Economics Economics of fear (Boulding)	Formal, mathematical economics. Marginalism.
System	Natural Economy (Ghiselin-JH)	Traditional Economy	Political Economy	Financial Economy

Traditional economics taught in our universities –what was explained in the handbooks by J.B. Say, A. Marshall or P. Samuelson- is nothing more than a set of tools designed to understand the Bazaar rationality. This set of tools forms the grammar that rules and structures the Bazaar rationality. We can use these tools to analyze and partially understand other rationalities, but we must be aware that a full understanding is out of reach to the outsider. The rationality of each system is a close and complete system in itself.

	<b>Cave</b>	<b>Temple</b>	<b>Palace</b>	<b>Bazaar</b>
Bright side	Love, care of children and elders	Charity, solidarity	Order, justice, redistribution of wealth	Freedom, innovation, optimization
Dark side	Distrust, vendetta	Hate infidels. Religious wars.	Predatory wars.	Marginalizing

All four rationalities have a bright side and a dark side. The bright side rules the relations between those inside the system. The dark side is the behavior towards those outside the system. Jack Hirshleifer proposed to study the dark side and its macro-technology. He suggested creating a kind of Cobb-Douglas function for conflictive behavior, in order to explain the interactions of individuals of a system with outsiders, as -for instance- the struggles to obtain and protect property. As Jack spoke of wars, armies and Machiavelli economy, it seems that what he had in mind was mostly the dark side of the Palace. Jack didn't make this distinction but I do believe, that to develop his proposals further, we must differentiate among the dark sides of Caves, Temples and Palaces.

## **The Global Cave**

We, economists, have an old habit of predicting the future. Old habits die hard, so, to honor this tradition, I will try to describe briefly a new rationality system that seems to me to be emerging in our times and that one day may become dominant.

Actually, there are signs nowadays of a new form of economic rationality. Let's name it the "Global Cave". The Bazaar puts those with nothing to sell outside the system. Palaces, Temples and Caves exclude those belonging to other Palaces, Temples and Caves. On the contrary, in the Global Cave there is room for all human beings.

The Global Cave may be the consequence of the new information and communication technologies. Some individuals receive a wealth of data and knowledge about the rest of humankind: their economic necessities, their political systems, their culture, even their genetic identity. Information has become the main asset. Information is inexpensive to obtain, to transfer and to accumulate.

These information-rich individuals, guided by the new Global Cave rationality, do not want to use Hard strategies against other member of our species. The Global Cave rationality accepts giving away our information, even our money and our time for the benefit of the less privileged, whatever their race or creed. When we give information away, we lose nothing and our chances of improving our prosperity increases. The Global Cave seems to work under the law of ever-increasing returns. This new rationality is being currently analyzed, among others, by the economy of information, the economy of free intellectual property (Levine & Boldrin 2002), the "networks economy", and the economy of the "third-philanthropic- sector".

This way of thinking can use the Bazaar rationality when looking for efficiency. The Global Cave is being built under the Palace law and order, and over the foundations of the Cave and Temple links of solidarity.

However, even if the Global Cave eventually turns out to be the dominant rationality, the economy of the dark side would not become obsolete. I am afraid that the Palace, Temple and Cave rationalities will remain dominant for centuries for the technological illiterate and the information pariahs.

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