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Formation of the sacred and
antagonistic conflicts**

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Not-dividing the Indivisible: Formation of the sacred and antagonistic conflicts

Nicolò Bellanca and Stefania Innocenti*

Abstract

Indivisibilities are at the core of economic theory as rarely individuals can or want to limitlessly divide goods, inputs and activities, as well as related economic phenomena such as economies of scale, externalities and public goods. Indivisibilities help in explaining conflicts over social objects which lose much or entirely their value if they were divided. In this paper we focus on the development of those conflicts: we focus on situations in which a player is fighting for the right to keep his opponent out of the exclusive access to the object. We examine the way the contending subjects need a Third player able to enforce the law and we questioned whether this Third player would contemporarily satisfy his own interests. We affirm that an object featuring non-rivalness is the only one manifesting an indivisibility that, although undivided, does not promote the conflict. Hence we argue that a form of non-rivalness is a collectivity's imaginary, which relies in the partition between the sacred space - wherein the collectivity is placed - and the profane sphere. This form allows the group to recognize, reduces conflicts within the group, but at the same time transfers the conflicts on the indivisibilities to the relationship the group has with external and extraneous groups.

JEL codes: B52; D02; D70; H10; H40; Z13

Key words: sacred; collective imaginary; non-negotiable conflicts; substitution principle; indivisibility; non-rivalness; Mancur Olson

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All of the social and political problems that have proved more difficult than ordinary market phenomena to understand are more difficult principally because they contain certain indivisibilities.

Mancur Olson (1990, p.219).

1. Introduction

This essay intends to use categories and tools proper of the economic theory to analyze the sacred, collective imaginary and antagonistic conflicts.

Over the last decades, economics has shifted its attention from the ordinary activities carried out by the market towards a wide variety of distant topics. Amongst the latter we can name religion, shared mentalities and several types of conflicts (see, respectively, Iannaccone-Berman, 2008; Mantzavinos et al., 2004; Garfinkel-Skaperdas, 2007).

Nevertheless, we will claim that imaginary –a direct collective phenomenon – as well as the sacred dimension and non-negotiable conflicts have shown to be topics that economics proved to have difficulties in dealing with. This is partially due to the limited contamination with other social disciplines. Hence, our argument will benefit from insights from the sociological and anthropological literature. Furthermore, and on a higher scale such difficulties, as we will suggest in §2, can be traced back to the “genotype” of the still dominant neoclassic theoretical paradigm which conceives perfect substitution amongst individual choices. This principle eliminates from its theoretical space all assets, inputs and economic activities which manifest forms of imperfect substitutability, or especially indivisibility. Consequently, as we will further discuss, the majority of relevant human choices are cut out from the scope of the economic analysis. In §3 we will focus on the selection criteria for the allocation “all-or-nothing” of something which is - and stays - indivisible. In §4 we will examine the reasons why, in economic terms, we could classify symbolic objects amongst the most meaningful indivisible goods, and the way

the collective imaginary - referred to as a collection of group-identifying symbols - has a peculiar role amongst them. §5 will be devoted to the path along which a collective imaginary is generated, while §6 will discuss the economic reasons for which collective imaginary is made sacred. Throughout this theoretical framework, we aim at providing an explanation to the origin of inter-grouped radical conflicts. §7 concludes.

2. The substitution principle in the neoclassical choice theory

The entire categorical apparatus of the neoclassical economic theory revolves around the equality of marginal values. When distributing an input or asset across alternative uses, each unit is transferred towards a specific use until the advantage obtained equals the loss related to its retreat from a different purpose. This distribution has a first best solution if and only if the criterion of diminishing returns applies. The higher the number of units devoted to a single use, the higher the number of those which would turn out being more fruitful if used differently (Blaug, 1997, chapters 8-11).

Hence, according to this theory, the producer substitutes one input to another, and the consumer substitutes an asset to another, until the benefits generated by an additional substitution to a specific use stops rewarding them. However, for this to happen, there must be a *technological substitution* amongst inputs which allows the production of the same output through varying proportion of inputs. A *psychological substitution* amongst assets, which allows reaching an equal utility through variable combinations of the assets, has to be in place as well. This condition on the validity of the marginal values equality is defined by Marshall (1890, p.556 and passim) "substitution principle" and constitutes the pillar of the economic theory.

The substitution principle can be criticized both theoretically and empirically. Let's consider, for the sake of simplicity, a situation in which we have two inputs or two assets, respectively represented by the isoquant (combinations of inputs able to produce a determined level of outputs) and by the indifference curve (combinations of assets expressing an equal level of utility). Realistically, in the production processes fragmentary isoquants can be detected. An asset can be produced in fact in various ways: not necessarily throughout a continuous substitution amongst factors, but rather throughout fixed re-combinations of them, i.e. "bouncing" from one method to another.

Similarly, in the consumption processes, the subject chooses within a possibly wide, yet limited, menu of sufficiently distinguishable goods, which thus require a sort of “jump” from one to another. This detail does not only point out the existence of a gap between empirics and theory, but it opens up a different theoretical horizon, where the *imperfect substitutability in economic activities becomes the core*.

Obviously a possible objection might regard the fact that, in a modern neoclassical debate on the theory of choice, situations of partial or null substitutability are discussed. Moreover, the literature upon externalities, public goods and scale economies – dominated by indivisibility – has been promoted and nourished by neoclassical economists. A similar interpretation of the history of economic thinking is possible. However we shall consider what Mancur Olson, clearly having a neoclassical preparation, claims. In his reflection – as the opening sentence of this paper states – the theme of indivisibility is central. He does not analyze this category as a simple “complication” of the Walras or Marshall paradigm, but rather as a perspective able to reorient the axis on which the paradigm is pivoted. In this sense Olson is a post-neoclassical economist. Even without examining further details, due to the limited space, this second interpretation appears more suitable to represent economics’ changes and afterthoughts, at least from the mid XX century on.

Let’s assume thus, un-substitutability (or rather, limited substitutability) as a fundamental category both in production and in consumption. Un-substitutability can, be respectively classified in the following four sub-categories: *inseparability*, *indivisibility*, *non-transferability*, and *specificity*. *Inseparability* essentially concerns the objective-technical features of those which, from now on, are called “objects” (assets, inputs, activities). The latter are often available in sufficient quantity, in the sense that a table, to carry out its role, cannot be arbitrarily cut into pieces; and in the sense that many objects create utility only when combined. In the steel manufacturing for instance, both fusion and millwork have to be carried jointly, since cast steel cannot otherwise be transported. *Indivisibility* regards objects that are likely and not infrequently easy to split. However, if this happens, each one and everyone loses a considerable portion of its value. Think of a series of innovative services of the knowledge economy. IT platforms, qualified human resources, appropriate software, communication channels used to connect with providers and clients,

they are ingredients which do not necessarily need to stay united. However, they generate economies such that the sum of every single production cost exceeds the combination of all services' production cost. (Further in this paper, indivisibility will be the crucial category for our reasoning). *Non-transferability* concerns an object's level of alienability. Land cannot be moved from one place to another; worker's performances are linked to his person. The same applies when widening the reasoning to objects which are less strictly negotiable on the markets. It is not possible, for instance, to displace as wished, social capital from one community to another. Lastly, *specificity* is related to non-transferability by the same ratio as the one running through indivisibility and inseparability. This means that, in the specific cases, objects can be alienated in various not too costly, nor difficult, ways. However, if this occurs, these objects significantly lose their own value. It is the case when someone informally associates his clothes store to an exclusive brand, or when a shoe craftsman is asked to produce a pair of shoes in a specific color, model and measure. Probably, if that style fades or the customer disappears, the agents might still be able to sell their products, but they will have to reduce the prices. Figure 1 summarizes the four dimensions of un-substitutability. It also uses a simple but eloquent criterion which helps distinguishing the sub-categories. It is the, criterion of the emerging damage and loss of profits, well-known amongst jurists. The emerging damage identifies the condition of suffering from a loss, that is a value-reducing process. The loss of profit points instead to a missing earning event, that is the interruption of a process which would increase value.

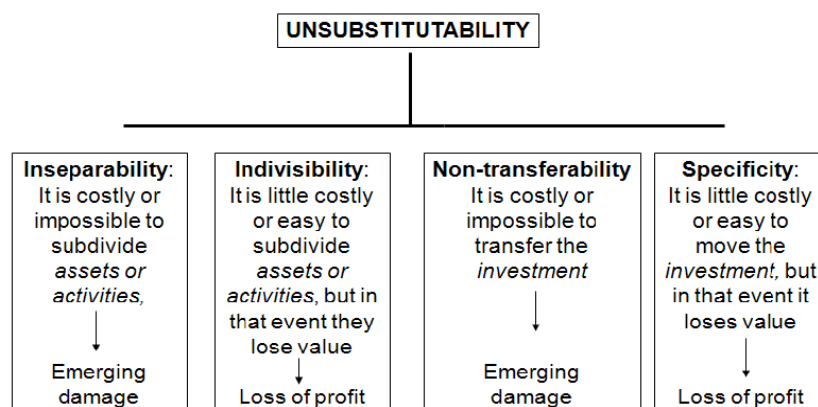


FIGURE 1

If the substitution principle stops being relevant, *economic choices change nature, and become either asymmetrical or extreme*. When objects are inseparable or non-transferable – as their substitution or relocation is impossible or very expensive – an asymmetry in favor of more flexible objects occurs. Let's consider the crucial asymmetry, both physical and institutional, between capital factor and labor factor: while the former is transferable, the latter stays incorporated in a person. It follows that any firm – as capital assets are alienable through space and time – can either possess or borrow its own capital stock. Contrarily labor capacity is expressed by someone in a certain place and time. While a capitalist's wealth can, in principle, be stockpiled with no limits, workers time and abilities face natural boundaries. Whoever possesses capital can maximize his own utility through an optimal choice of portfolio, whereas the labor resources mobility only takes place if the worker quits his job and starts working for another company. Those who own capital can extract profit out of it even from distance, transforming it into an homogeneous good such as financial capital. On the contrary labor services result from the contiguity of heterogeneous workers, as almost all labor activities require the coalescence of different types of skills and specializations (Dow, 2003).

Instead, when objects are indivisible or specific – their substitution, or their reallocation, causes a reduction of their value. The agent faces some *aut-aut*, or extreme choices: he has to choose either x or y because any possible combination of them would worsen his situation. In order to illustrate this point, we shall go back to the criterion of decreasing marginal revenues which has been recalled at the beginning of the paragraph, and which is a condition for choice's optimality. This criterion postulates the convexity of a set of choices. If, for the sake of simplicity, we limit our argument within convexity only, the criterion states that when a subject can choose between two different objects, he prefers any of the intermediate ones. Let's consider x and y i.e. two baskets on the same indifference curve the consumer can select. If the subject mixes them according to λ and $(1-\lambda)$ ratio – for instance he takes half the quantity of assets contained in x and y – he prefers this combination z to the other two extreme baskets. This means that, for the consumer, the bigger the amount of x he can get, the lower his desire for any additional increase. Therefore the agent prefers to trade a certain amount of x with a certain amount of y . This means that he is simultaneously consuming x and y , hence switching to z .

Symmetrically, isoquants have a convex shape. In case of convexity, choices regard infinitely divisible objects which are substituted with one another according to the "more-or-less" gradualist logic. Convexity, indeed, implies the infinite divisibility of choices: consumption, or technology, allow to continuously use any asset, or any input in a variable amount (for instance see Kreps, 1990, chapter 2 and 7). However, if we admit the indivisibility of several assets (e.g. computers and cars), inputs (e.g. gears and plants) and economic activities (e.g. on the consumption side, entering a supermarket or not, and, on the production side, opening a plant or not) we cannot affirm that x and y can be combined anyhow. (A similar difficulty occurs if we admit the specificity of objects).

If convexity is not relevant instead, discontinuity as to be faced and this requires to take a stand for either x or y , as all objects in between them generate lower wellness levels. The choice becomes polar: it is convenient either to select one extreme or the other, though any possible moderate or intermediate situation are excluded. Let's consider one example. A parent chooses a school for his soon. He prefers bearing a low level of public expense so that, in case the public school's quality is poor, he has sufficient money to switch to a private one. On the contrary, he prefers a high level of public expenses, if he is sure the public school's quality is high. The worst solution for him would be the intermediate one, i.e. when expenses are high and the quality is inadequate.

Let's summarize. The neoclassical theory of choice, in the (partial) interpretational reconstruction carried out here, relies on the substitution principle. This theory portrays agents who can and want to set trade-offs amongst accessible objects. They *can*, because objects are divisible and do not lose value when split; they *want*, because they improve their wellness by jointly using these objects. As soon as this principle is put into question, economic choices either become asymmetrical or extreme. In case of asymmetry, the least flexible object's value is conditional on the choice of the most flexible one. When dealing with extreme choices, the object loses value if the other one is selected. *Extreme choices with reference to indivisible objects* will be the unique object of this paper.

3. When the indivisible is not divided: violent conflict and power conflict

When objects cannot be substituted with any other, isoquants or indifference curves assume a concave shape, and the object loses its value as soon as another one is selected. For extreme choices an optimal sharing criterion does not exist. The members of a collectivity have nothing to do but finding and negotiating a choice criterion amongst the many possible ones. When a choice criterion is consensually selected, it is denominated "fair". Several particular equity criteria were historically identified: from seniority to queuing, from physical strength to technical skills, from waiting lists to price, from familiar distinction to caste, from merit to political loyalty, from qualification to democratic decision, from residential status to legal status, from need to effectiveness, from sexual orientation to mental features. These criteria, together with those suggested by Peyton Young (1995), help filling a list of eight distinct selection rules. Physical division consists in cutting a objects in parts. Lottery regards using a draw to randomly assign the object. Rotation is about diachronically alternating the object's availability. Subtraction consists in ceding the object to an external subject to the group; whereas sale, requires the object to be sold to share the revenue amongst agents. Compensation is the fee that one pays to others in order to be the only buyer of the object. Unbundling attributes consists in allocating the object's use and its monetary value to two different subjects. Lastly, 'holding in common' consists in renouncing to give the object to someone else.

All these criteria are "fair" as they intend *to divide the indivisible throughout shared rules*. Although the object is not perfectly separable, its value shrinks when fragmented and although some might take advantage of its repartition, the members of a collectivity agree on a single rule of the game. 'Holding in common' (also called sharing: Belk, 2010) constitutes a notable exception. It is the sole criterion which does not divide the object. However, as a matter of fact, it only postpones the division. Allowing everyone to access the object today, it consents "to choose not to choose" what criterion will regulate its use and appropriation tomorrow.

After analyzing "fair" choices, we are able to understand, the opposite important category of human choices we are focusing on, and which has always

been neglected by the theoretical neoclassical paradigm. Differently from fair choices, who divide indivisibility in a controlled and consensual way, we focus our attention on *the assignment of indivisible objects without dividing them*. Allocating an indivisible object without dividing it means assigning it to an individual or a group, after subtracting it from others. Sometimes it can still be a fair choice: for instance, a solution that entirely assigns an asset, input or activity to the subject acknowledged as "legitimate", "weak", "able to appraise it", or else, can be perceived by everyone as fair. In many other circumstances, however, fairness is no longer a landmark: as the choice criteria is ultimately based on one player's unilateral appropriation, sharing and acceptance tend to fail. Often this choice is not voluntary.

It appears plausible to assert that there are two ways of allocating all-or-nothing an indivisible object. The first option is physical violence. «Violence may well be the only way in which it is possible for one human being to have relatively predictable effects on the actions of another without understanding anything about them. Pretty much any other way one might try to influence another's actions, one at least has to have some idea who they think they are, who they think you are, what they might want out of the situation, and a host of similar considerations. Hit them over the head hard enough, all this becomes irrelevant» (Graeber, 2011, p.48). Violence is thus the ability of imposing social relations minimizing communication, beliefs and expectations. It represents the extreme form of sociability's depletion. The clear possibility to use it in case of all-or-nothing choices has nourished the idea that non-sharing the indivisible is a rough and archaic strategy, unworthy of analytic attention as well as of normative consideration. A person who hits someone else is just overpowering the chosen target. He does not claim any right, nor does he formulate reasons: he only grabs the loot. It is not worth debating about this issue, we shall just convict.

However, as many scholars have observed, mere physical violence' has a limited effect in hyper-simplified social contexts. In order for violence to become power, the entire communicational and imaginative depth, namely, those dimensions that had been expunged should be questioned (see, for all, Arendt, 1958 and 1969). This leads to the second criterion concerning all-or-nothing choices. It is based (in terms of power, not violence) on the decisive presence of a third player. In order to understand the conditions upon which this criterion

applies, we shall distinguish between two modalities of executing an auction. The first criterion implies that the subject who gives up on the object is rewarded; in the second one, the agent who acquires the right of subtracting the object from others, prevails. In the former, one offers value to the other until he takes the amount and exits the game. This is an auction where the auctioneer is only a fictitious figure that bureaucratically registers offers and counter-offers, and that, however, could be removed without altering the process. In the second type of auction, instead, the bet at stake is not directly the indivisible object, rather *the right of eliminating the other from the game*. However if the stake is a right, a Third player is necessary in order to establish and implement such right: instead of an "Auctioneer" we now have a "King" (as he will be called from now on), as a necessary figure who holds enforcement powers. More generally, the Third or "King" is someone representing one or many groups that, in a given collectivity, regulate conflicts assigning rights upon objects.

The first form of auction proposes a mechanism to transform an indivisible object's initial allocation-related problem into a new problem concerning divisible objects (monetary rewards). In Peyton Young's taxonomy this is denominated "compensation". The second form of auction arises instead when players stop negotiating economic compensation in order to claim the right upon the object. However, as the object is indivisible, the right must be exclusive. This means the opponent must be cut off the games. This point is sharply recalled by Guido Calabresi (1985, p.87): «When beliefs on both sides clash, financial compensation is often not enough because compensation does not make up for the violation of one's beliefs. What is at stake is not whether one has a right to impose the *cost* of one's belief on someone else (which is hard enough), but rather whether one has the right, in some sense, to impose the belief on the other. If my doing what I believe violates your beliefs, and vice versa, then compensation is likely to be less than useless and may make matters worse ».

The beliefs Calabresi refers to – for which economic compensation is inappropriate and ineffective – have an "identity-making" nature. Subjective identity is referred to as the process through which Ego acknowledges himself, and is recognized by Alter, as part of wider collectivities. On the basis of this process, Ego gives meaning to his own actions: if the aim is giving himself a sense, Ego must enter a group and be recognized by the group as a member. Identity thus requires correspondence between Ego and Alter: Ego becomes part

of Alter's group if acknowledged by Alter, and Alter acknowledges Ego if the latter, when entering the group, acknowledges the former. There is no before or after, not a cause nor an effect: Ego is Ego because his meaning is defined by his membership, together with Alter, to a group, and vice versa. Identity is not a requisite someone can gain or lose, produce or trade. As identity is something that only exists throughout others' eyes, it is nothing but the circular relation between Ego-Alter-Ego. The ultimate foundation of subjectivity lies in the intersubjective acknowledgment, and this entails that identity arises from an interaction explicating itself in the form of an encounter or a clash: either we acknowledge each other in the name of affinity and solidarity, or in that of difference and contrast (see, on the theme of identity as acknowledgement, Pizzorno, 1986 and 2007).

Hence, the second form of auction – where one engages economic assets to subtract the object from the other – concerns an all-or-nothing identity-making stake. A paradigmatic illustrative case is the biblical episode where, in front of King Salomon, two women, Anne and Claire, claim the same baby as their own son. The baby represents an indivisible object not, obviously, only because a sword cannot cut him, but most of all because he is an identity-making object for both suitors. Both Anne and Claire attribute meaning, as for their social actions, from being mothers, but they only have one baby at their disposition. The King ignores that the real mother is Anne. If only paying a sum to disclose the truth was enough, the King would offer a prize for the fake mother to reveal herself, and Claire would step forward. In alternative, Salomon might threaten both women by totally devaluing the object, in order to verify which of the two women attributes the highest value to the baby. This is what the Bible tells: Salomon pretends he wants to cut the baby into two parts with the sword; the real mother gives up, as she judges the indivisible value of that object higher than obtaining a part of it. The result is happily paradoxical, as the one who renounces discloses the truth and gets rewarded by obtaining the object. As a matter of fact, as long as Salomon pays or threatens, he keeps on carrying out the first form of auction: he compensates the one who gives up on the object. Nevertheless, paying does not work because he does not compensate the identity-making injury. Nor works the threat, because, both women do not perceive as credible that the King will actually destroy the object from whose assignment he derives his role (and hence his own power). An alternative

second form of auction, which claims an exclusive right on the object, exists both for Salomon and for us. As Claire stakes her own identity on being a mother, she is willing to engage economic assets onto this claim, namely to kick the other woman off the game. Economic assets do not compensate/affirm one's *own performance in negative* (renouncing the baby: first form of auction), but rather they question/eliminate the possibility of a positive performance for the other (the other woman being a mother). In an identity-making logic, each player does not aim at cashing economic assets, but rather at spending them against the other. There is no interest in collecting resources, but in destroying them. Let's imagine a sequential game where King Salomon tries to understand which of the two women is willing to commit the biggest amount of money to obtain the baby. The King's strategy is based on the plausible assumption that the value related to the baby is higher for the real mother than for the fake one: $C_A > C_c$ (the King does not know that "A" stands for Anne). Salomon starts by setting up an initial sum, F , which each woman aiming at having the baby will have to burn (or give him for other purposes), in order to avoid other people who are not interested in the game to start playing. Then is Anne's turn: she only claims the baby, as she does not know Claire's intentions. The third move is Claire's, who states she is the mother. In order to have the baby, she burns, a sum B whose size can be C_c (minus F , which Claire as well as Anne, have to pay anyways). It is Anne's turn again: as $C_A > C_c$, she burns, other than F , a sum that, exceeding the value of B , does not make a higher bid convenient for Claire. The game ends with the King assigning the baby-object to Anne (Glazer-Ma, 1989; Dixit-Skeath, 1999, pp.406-08, with a few adjustments). Along this interpretation, an auction, whose stake is an object (material or, more often, symbolic) expressing both players' identity, is carried out. Just for the fact that it concerns everybody's identity, the disputed good is indivisible. The good's assignment is finalized when somebody is willing to burn (or to pay a third suitor, for other purposes) more, in order to be the unique owner of that good. As well as in King Salomon's strategy, *the waste of assets reveals how much a subject cares about an identity-good*. This auction represents in "pure" terms a social conflict which is not solvable through the marginalistic more-or-less logic, namely giving something to someone after taking it away from someone else.

4. Symbols non-rivalness

Thus, when Anne and Claire argue upon an authentically indivisible object, or resort to violence, or compete for an exclusive right in front of the King, both violence and destructive auction, are antagonistic conflicts interpreted as zero-sum non negotiable games. The crucial difference between the two modes concerns the strategy's nature. Physical violence is carried out directly – through a hit on the head, a sword stroke or a gunshot – between Anne and Claire. On the contrary, in case of power conflicts a player does not attack the rival, he rather commits himself towards certain behaviors with the aim of obtaining the right of dismissing the other from the game. However, as we have seen, in the transition from a violent conflict to a power conflict, a Third person must intervene in order to set and implement the right claimed by the players. This Third is, in turn, a player with his own strategy. Let's then linger on the King's strategy.

Firstly, in the Biblical tale Anne and Claire carry the baby to the King. In this case, the Third party is aware that his power is originated by the fact that the other players are already arguing upon an indivisible object. However, the scheme might be reversed onto a situation where the King suggests an object Anne and Claire will compete for. If that object is divisible, Anne and Claire would start a mutually favorable negotiation, according to the neoclassical substitution principle, and Salomon might, at most, obtain a reward for having brought that object on the market. Whereas, the perspective radically changes, in the King's favor, if the object is a public good, which cannot be divided/shared (as it is impossible or very expensive to exclude someone from its fruition) nor would that be desirable (as someone's consumption does not change the quantity available to the others). No one is induced to voluntarily pay for this good, as they can benefit from it anyways. It is thus necessary that the King guarantees its funding through a mandatory contribution-based system. It follows that Salomon is incentivized to supply public goods, in order to assume the non-substitutable role of taxation perceiver¹.

Secondly, Salomon is economically incentivized to spend in public goods until when the group's income has grown so much to be able to pay him back, in

¹ Obviously, public goods based on a voluntary contribution can exist. However, they are not supplied in an optimal quantity and require particular assumptions in order to leverage the problem of free-riding: hence, they do not modify the main path of our argument. On this theme, and for any aspect related to the analysis of public goods, see Cornes-Sandler (1996).

the form of increasing taxes, the same amount he had spent. In other words, the King keeps supplying public goods until his portion of marginal social benefit, deriving from those goods, equals their marginal cost. Under this precise condition, it is convenient for the King to promote Anne and Claire's wellness (Olson, 2000). The aspect concerning the highest collective wellness noticed here derives from introducing inclusive, rather than exclusive, indivisibilities. Public goods indivisibilities, indeed, are not such because they concern Anne *or* Claire, as in the case of the baby's indivisibility, but rather because they express benefits which are extended *both* to Anne *and* Claire, for instance in case their houses are protected by the King's army. Salomon, although not directly feeling the identity-making clash between Anne and Claire, is thus incentivized to supply goods able to increase the advantages related to group membership. These goods indirectly weaken the reasons behind the clash amongst the group members. Only if Anne (Claire) accepts cohabitation with Claire (Anne), she will be able to use these goods the way she wishes without breaking their indivisibility.

Thirdly, a public good is characterized by on two distinct forms of indivisibility. The one observed here is non-rivalness². It derives either from scale economies or decreasing costs. When offering non-rival objects, Salomon will have to face, sometimes (not always), high initial costs, but then he will benefit from decreasing or null marginal costs. It follows that it is convenient for the King to expand the supply to a growing number of subjects, until he covers all the members of the collectivities he is able to control.

Fourthly, an object becomes non-rival when everyone is able to use it in its entire value, namely when it can be simultaneously used in several social processes (Romer, 1990, pp.S74-5). However, this "ubiquitarian" feature excludes material objects: a water source, a table or an organization can be used here-or-there, from this-or-that person. As Paul Romer (1996, p. 204) efficiently affirmed, ideas are the only objects who can fully realize non-rivalness. However, if ideas are ubiquitous, so are usually cultural symbols as well³.

² Olson (1986, p.121) observes that economists usually considerate the public good's properties all together, and do not focus on the implications of a specific analysis of non-rivalness.

³ On the distinction between ideas and symbols, see §5.

Fifthly, and lastly, the King will invest in the ideas or symbol transforming them in non rival, if only they have an adequate economic value for him and his citizens (from which he draws taxes). As for ideas, the answer obviously concerns the new knowledge applicable to economic activities. As for symbols, we argued in §3 that identity is what gives a meaning to human choices. Identity is thus the "critic resource" without whom any other object has value. The combination of symbols allowing an individual and a group to have an identity is called "collective imaginary". The King has convenience in investing on that.

The King's strategy appears clear as soon as we connect the above-mentioned points. He becomes guarantor of the public goods funding for his own convenience (first point). He is often incentivized not only to draw taxes, but also to supply/promote public goods (second point). His convenience reaches the peak when he offers non-rival public objects (sometimes impure, as a non-excludability might be missing) to the entire collectivity (third point). But, in order to reach this peak, the King must invest in the only non-rival object able to "cover" the entire collectivity. More precisely the King should invest in ideas or symbols the members of the collectivity give economic value to (fourth point). Symbols creating the collective imaginary are those which drive a group to its own acknowledgement, and are thus provided with a high economic value (fifth point).

Hence the King's strategy we focus on – it is not the only one, but we have argued its crucial character - consists in investing in the imaginary of the collectivity the King is interacting with. Let's go through this strategy, guided in part by the contribution, little known outside Italy, of the anthropologist Carlo Tullio-Altan (1992, 1998).

5. The collective imaginary

We call "collective imaginary" the set of symbols within which a historically determined collectivity defines itself and the world. It is in the framework of a collective imaginary that a group reconsiders its own condition, interprets it according to different reference contexts, considers possibilities that were not considered beforehand. This "imaginative knowledge" needs to be set apart from knowledge acquired through ideas, which are forms of representing "something" determined. In the cognitive path of ideas the individual proceeds towards the

object in order to better understand it: this entails that the subject, who maintains his own autonomous willingness and awareness, develops some sort of detachment. Contrarily, when going through a collective imaginary, the individual conforms himself and the object to the symbol; he adheres to imagines-values where the distinctions between "me and you", or "me and many others", or "me and it", have not been spread yet. In brief, the individual operates upon such distinctions' conditions of meaning. Therefore imaginative knowledge is the individual's identification in the symbolic representation and, this way, in other individuals or objects. But, if in the symbolic experience "my" individuality is not yet divided from "yours", this means that symbolic experiences are generated *directly as collective*. For instance, if a cross sign in during private prayers represents a symbol of the spirit's resurrection, it is due to the fact that for long time the cross has been constituting the symbol of a collective religious practice. The intimate and individual dimension of the symbol's elaboration exists when linked to the group dimension: *either it is a collective imaginary or it is not*⁴.

When a group faces experiences which appear "destabilizing" for the usual meanings of its reproductive actions, its set of alternative options needs to be adjusted. The initial transition consists in exiting from the concrete situation of crisis, *through the simulation of alternative scenarios*. This entails the *removal from a historical context*, which means to temporary leave the incidents' actual space-time coordinates aside. The following transition lies in the *cultural codification of the alternative scenario*. The latter is "performed" and transmitted from one place to another, from one generation to another, through public rituals, with the aim of giving back, spreading and rooting an integrated and stable hermeneutic orientation. Public rituals – social occasions featured by more-or-less unvarying sequences of actions and dispositions (Rappaport, 1999, p.24) – include civil and religious ceremonies, festive celebrations and gifts trade, shared productive contexts, ordinary trade negotiations, media and sports events, pedagogical paths, political gatherings, trials and criminal punishments, funerals, weddings, and other transition rituals, up to basic daily interactions, from gossips to hanging out at the usual news-stand or village fountain. But,

⁴ We do not deny the existence of private symbolic experiences, like for example the dream. The point is, dreamlike images are generated in the individual's mind as this has delved in a collectivity's symbolic production process.

obviously, not all social routines nor all social interactions, are public rituals⁵. They become such when they change the group's behavior towards certain symbols. Or, from an opposite point of view, the symbolic experience is concretely nourished, transmitted and shared when the group's members acknowledge themselves in a simulated scenario, until they chose a behavior which is compliant to the meaning it suggests. When this happens, the simulated scenario becomes a public ritual and it is right through it that a new collective imaginary emerges.

Hence, in order for a recurring occasion of social interaction to become a public ritual, it is necessary, though not sufficient, that simulation represents the predominant communicational mode. Verbal language, although indispensable, is more suitable to transfer ideas rather than symbols. On the other hand, think about the celebration of a religious ceremony or the set-up of a profane theatrical performance. The beneficiary/addressee empathizes with the emotions lived and expressed by the celebrant or the actor in a form of direct participation. Religious ceremonies and theatrical performances are, as a matter of facts, ideal-typical procedures – within a much wider set of public rituals – which transmits symbolic messages through the subjects' *simulated* involvement and mobilization. By the term "simulation" we indicate here the *fictio*, that is "something manufactured or patterned", not something fake, unreal or merely relegated to *what if* (Geertz, 1973, p.53). Simulation is thus a preview of behaviors we will (probably, though not necessarily) conduct outside the public ritual, similarly to when the scientist discovers a chemical formula thanks to the artificial simplicity of experiments conducted in a laboratory, and then possibly execute it, through various complications, in "authentic" social life contexts.

Hence, when during a social meeting we manage to simulate other possible social gatherings, we implicitly confer power of a public ritual. For instance, while few actors perform in front of a wide group of people, these *may*

⁵ Ritual interaction is a wider category than that of public ritual. It is at the centre of Durkheim's, Goffman's and Collins' sociological theories. The latter defines it as follows: «ritual interaction owns four main ingredients or initial conditions: 1) two or more persons are physically in the same place, so that they influence each other with their tangible presence, either they are aware or not; 2) there are boundaries for strangers, so that those who participate are aware of who is involved and who is excluded; 3) people concentrate on a mutual object or activity, and reciprocal communication related to this focus tends to set any other ones apart; 4) a state of mind or emotional experience is shared » (Collins, 2004, pp.47-48).

go through a double cognitive experience: on the linguistic-conceptual level, the audience is seated in a theatre while enjoying a literary text's representation; on a symbolic level it enjoys the symbols evoked by the performance and, on an individual scale, it turns them into possibilities of thought. This also matters in other contexts: women having a daily chat at the village fountain might be also reveal the double level of a cognitive experience, if they simulate other social scenarios, maybe figuring lifestyles and consumption behaviors that they do not really pursue. Thus, public rituals make a certain set of symbols shared. They raise the individual's convenience of belonging to a group, as they offer a shared imaginary: a fundamental language for mutual acknowledgement. Relying on simulation techniques, they also notably reduce individual costs related to collective action. The individual can store symbols – which, as giving relevance to his action, have a high value for him – delving with (almost) no costs into a public ritual. The symbolic experience, made concrete by public rituals, weakens the individual's incentive to stay out of the social game.

When, through public rituals, the social experience gets structured in a collective imaginary, it is necessary to shift from symbols to ideas and stereotypes. The basic difference lies in the fact that while symbols constitute "the forms to think", ideas are "the forms of thought". Symbols are entirely open and undetermined: a waving flag, a breast-feeding mother or a fenced territory, can be included in infinite horizons of relevance, from exalting regressive values to emphasizing subversive planning. On the other hand when symbols become reproducible and culturally codified within a group thanks to public rituals, they turn into ideas. Consequently, group members, whether willfully or not, start figuring determined contents that, in order to express something, necessarily need to deny something else. Moreover, besides ideas there might be the rise of stereotypes, which translate symbols (i) into pre-established frames, (ii) into rigid beliefs in spite of the interpretational context, (iii) into regulatory expectations inclined to stand out on phenomena who prove them wrong, (iv) into prejudices framing and orientating the paths of ideas. The conversion of the collective imaginary symbols into stereotypes, often (though not always) arises from processes which are strategically oriented by the Third: as Machiavelli observes, indeed «*governing is about making believe*».

Let's summarize. A collectivity's imaginary is formed when group members simulate alternative solutions through public rituals, until they select a

new complex of symbolic experiences and meanings. This process, widely unintentional, can partly be governed by the King through investments in public rituals that translate symbols – inherently undetermined and polysemic – into ideas and more specifically into stereotypes to benefit from. The King’s strategy, however, does not end up here, as there is, in his possibility horizon, a much more powerful and radical possibility which will further be examined.

6. The sanctification of collective imaginary

First of all, collective imaginary exists, if it reaches out to a whole group of human beings: the more people acknowledge it as such, the more its effectiveness *grows*. At the same time, when each individual uses it, he does not prevent others to use it too. It follows that collective imaginary has the economic features of a non-rival public object. As collective imaginary confers identity to a group, its value grows with its uniqueness, i.e. it is substitutable and negotiable. As a consequence, the King is incentivized to make his collectivity’s imaginary totally indivisible.

In human history, a recurring strategy aiming at this goal can be detected. It qualifies as “sacred”, the social reality we are able to control, opposing it to anything else out of its area. All human collectivities, incentivized by their Kings, have carried out a world’s division into two rigorously separated domains: one includes what is sacred (the collectivity’s identity-making boundary), another involves what is profane (what stays outside that boundary). As Émile Durkheim (1912, p.41, authors’ translation) affirms that this distinction is more radical than the one between good and bad «this heterogeneity [between the sacred and the profane] is a very particular quality: it is absolute. In the history of human thought there is no other example regarding two categories of things that are so much deeply different and radically opposed to one another. The traditional contrast between good and bad is nothing in comparison: good and bad are two opposed species of a same kind, that is morality, as well as health and diseases are two different aspects of a same class of facts, life, whereas the sacred and the profane have always and in any place been conceived by human spirit as separate kinds, that is two worlds having

nothing in common»⁶. Taking this thesis seriously, the oppositions good/bad (ethical) and sacred/profane (religious) have a different nature. It follows that the religious phenomena, and more generally the sanctification of social spaces, *are not based upon the ethical dimension*⁷. According to this suggested perspective – which is different from Durkheim’s – *through the laceration of reality between sacred and profane, the Third transforms in absolute the indivisibility of the non-rival object – collective imaginary – within which collectivity members can acknowledge themselves.*

As a rigid dichotomy between the sacred and the profane exists, they represent *the* non-substitutability relation par excellence. However non-substitutability with the profane does not entail that the sacred is a static and intangible block. It is rather possible to split the sacred, according to a principle which claims that «when a sacred being is subdivided, it stays entirely the same in all its parts. [...] Given that a portion recalls the whole, [...] a simple fragment of the flag represents homeland as much as the (entire) flag itself: thus, it can be considered sacred in the same way and at the same level» (Durkheim, 1912, pp.251-52, authors’ translation)⁸. Hence, while the sacred domain appears separated by, and indivisible from, the profane, it allows, to those inside, for an equal rate of exchange of any of its parts, as long as the sacred goods are homogeneous. Nevertheless, when the parts of the sacred are acknowledged as different species of the same kind, within the sacred domain the possibility of different trade-offs exists. As a matter of fact, alongside the separation between

⁶ Obviously, the “discrete” opposition between sacred/profane recurs, in the historical event of human culture, several times: for instance as in the dichotomy society/nature or science/superstition. However no recurrence has the inner constituting coherence of the original dichotomy; indeed, each of the ones mentioned has been brought into question by those people that, between society and nature, or science and superstition, see forms of continuity.

⁷ The idea according to which ethics founded the sacred is widespread. Among several examples, one who is particularly stimulating is by Atran-Axelrod-Davis (2007); Atran-Axelrod (2008).

⁸ Consider, though, the following case. In 1866 the Bode Museum of Berlin bought for 28,227 marks from the Florentine manufacturer Stefano Bardini, *Madonna Pazzi* by Donatello. When the work is delivered, they notice that during the transport it had broken up into 14 pieces: its physical indivisibility defaults forever. In many social settings that might entail a corresponding reduction, if not demise, of the good’s commercial value. This does not happen in the case of a work which is the result of unique brilliance: through an accurate restoration, its aesthetic-symbolic indivisibility is safeguarded. Millions of visitors keep on admiring it as if it was still the intact work realized by Donatello. This case’s importance lies in showing that overall the indivisibility’s requisite is always given by subjects to objects, and can be revised on the base of a mutual belief.

sacred and profane, we identify «two species of sacred, splendor and ill-omened; not only there is no solution of continuity between the two opposed forms, but also, a single object can shift from one to the other without changing its nature. Something pure can generate something impure and the other way around» (*Ivi*, p.448, authors' translation).

Hence, through this still valuable analysis, Durkheim argues that the all-or-nothing logic is typical of the sacred as opposed to the profane, whereas *internally* the sacred cannot do anything but accepting the more-or-less logic. The thesis helps clarifying the historical role of the sanctification of social the space. The sacred does not impose any orientation to eliminate *any* trade-off amongst objects, as it contemporarily acknowledges that, *within* its space, objects are divisible and substitutable. For instance, the borders of France are sacred and include all people who are acknowledged as French; within them, French people trade objects among themselves. It is thus inside the sacred perimeter that lies the possibility of economic trades and, more generally, of social exchanges. The division between sacred and non-sacred is the most important cultural action a group of humans can realize. Only by "fencing" assets, inputs and activities within an undivided and indivisible space, individuals' acknowledgement can occur; and only based on this acknowledgement, individuals can gain subjectivity and start taking the first steps throughout the world.

Let's summarize the reasoning, by linking it up to the former paragraph. Collective imaginary is the non-rival object conferring identity to a group. Its sanctification raises its value to infinity, by making it non-negotiable, thus non-substitutable and thus, totally unique. It follows that the division of reality between sacred and profane spheres increases the incentives to invest in the formation of the collective imaginary. All members of a collectivity can take advantage of it. Anne and Claire, can use it through almost costless public rituals (§5). The King, instead, manages the collective imaginary (if already existing) or invests in public rituals until the new income equals its costs (if is yet to be created (again §5)). The formation of the collective imaginary and its own group's sanctification are processes which keep and strengthen each other.

One last passage is left. The repartition of social space between the sacred and the profane, however, is ambivalent: the sacred removes (or at least reduces) non-negotiable conflicts from the collectivity, however it transfers them

into the profane space which links the collectivity to other groups. On one hand, division sets the members of a collectivity in a place where a non-rival symbolic object allows them to vie without all-or-nothing clashes. On the other hand, the partition places members of the complementary set, namely non-members, in the profane space obliging them to stay external/extraneous. Hence, on one hand partition permits to weaken the social importance of a non-divisible-indivisibility – as that of Anne, Claire, and the newborn – and of antagonistic conflicts. But on the other hand, partition pushes these conflicts “outside”, as non-members stand in the same position as Claire with respect to Anne: also external members, as well as Claire, claim the object-baby in order to have the right to be mothers recognized. The King’s strategy transfers the problem concerning the indivisible all-or-nothing objects’ allocation: he moves it from the relationship between Anne and Claire, within a collectivity, to the relationship between that collectivity and others.

The result is similar to that discussed in §3: the “sacred group” (including both Anne and Claire) and the “profane group” clash in order to exclude each other from the possession of the indivisible object. Apart from for historically extreme circumstances, both groups would benefit from the presence of a Third player who sets and implements the right of exclusion⁹. But there is a crucial difference with the analysis carried out in §3: this time the incentives for the Third/King to set his own strategy, offering indivisible objects to both groups, are missing. First of all, the Third’s incentive is missing as for the occurrence of diseconomies of scale: usually, beyond a certain dimension, the non-rival object cedes benefiting from decreasing costs (Olson, 1987, p.88). Secondly, the Third’s incentive is missing because as the number of subjects grows, the public good’s supply-related costs raise also with regards to simple changes of the organizational form. The transition itself from one organizational mode to another is a costly process, as it requires coordination-related costs, cognitive elaboration, communication and decision-making, negotiation and mediation, influence and monitoring. For a deeper understanding, a fictitious case

⁹ As soon as collective antagonistic conflicts go beyond the mere form of physical violence explosion, they require a *jus in bello*. This gives to the Third the role of verifying that there exists a discrimination between civilians and fighters, that a ratio between the advantages expected from war and devastation from it produced is kept, that the victims (injured, ill, castaways, prisoners) are protected, and so on. In the extreme case of absence of a *jus in bello*, it seems difficult even to set the conflict’s limits, the stake (or stakes) and when it ends. See Kaldor (1999).

concerning an alien invasion aiming at vanquishing the Earth's inhabitants will be provided. Initially, two nations, opposing each other, know that they will defeat aliens only if they ally whereas they will be defeated if facing the attack separately. It is easy to believe that a coordinated action is not too difficult to reach, and that a Third's intervention is not strictly required. Let's figure, instead, a second situation wherein we count two hundreds nations on Earth. The stake is the same for each of them: their inhabitants' life. Any nation is willing to commit. But, not even the incumbent tragedy can wipe away coordination obstacles. Many subjects have to accept mutual rules, and this means renouncing to mistrust, resistance and temptation to negotiate. Although this can happen, it requires time and the delay might entail everyone's defeat. Moreover, if we consider additional general difficulties, such as an incomplete information that makes uncertain the terms for adequately responding to the alien attack, or an uncertainty regarding the enemy's actual intentions, the probability that some nations choose a wait-and-see behavior, while others try to separately make an agreement with the invaders, increases. Lastly, if the public good's supplied technology indicates that the minimum alliance able to lead to a success is composed, let's say, uniquely by rich nations, all the others can be induced to defect, therefore facilitating the enemy's penetration and victory (Sandler 1997, pp. xiv-xv; see also Sandler, 2004).

Therefore, when diseconomies of scale and costs related to the transition from an organizational form to another one arise, as the non-rival object's dimension grows, the emergence of an inter-group King is as little plausible as the probability of a sudden and coordinated response to the alien invasion carried out by the whole planet together (that is, the reach out to a cosmopolitan government). This conclusion meets the one suggested by realist theorists in the analysis of politics: in inter-group (and, in the modern era, in inter-national) relationships the prevailing and enduring tendency is anarchy, namely the friend-enemy logic of antagonistic conflicts.

7. Concluding remarks

A pleasant way to tell about the partition between divisible and indivisible economic phenomena can be found in the novel *The £ 1.000.000 Bank-Note*, by Mark Twain (1893). Henry Adams, the protagonist, is a poor man, but he receives as a free loan for one month a banknote whose value is so high that

nobody can change it into lower denomination banknotes. The paradox resides in the fact that, the Bill becomes useful to Henry right because it cannot be traded with anything else, as it is not divisible. Everyone gives him credit, thus notoriety, and eventually reputation. Hence Henry starts a business simply giving his word and become rich for real, before giving the Bill back. The novel's amusing and disorienting effect is generated by setting indivisibility in the core of the divisibility's paradigm: money exchange. Twain surprises us telling that an object can be highly relevant just when nobody can or want to subdivide it.

On our side, we argued that indivisibilities are at the centre of economic theory not only because individuals rarely can or want to limitlessly divide assets, inputs and activities or only because they are concerned with economies of scale, externalities and public goods; but also because – as Mancur Olson suggests in the opening phrase – they contribute to explaining social and political phenomena¹⁰. In particular, we have considered conflicts upon social objects that would lose the majority or totality of their value if they were shared. We focused on one of those conflicts' execution mode i.e. on players fighting for the right to keep his opponent out of the exclusive access to the object. We examined the way the contending subjects need a Third player who can impose the respect of the rules, and we questioned whether this Third player would contemporarily satisfy his own interests. We affirmed that an object featuring non-rivalness is the only one manifesting an indivisibility that, although undivided, does not promote the conflict.

Hence we have argued that a form of non-rivalness is a collectivity's imaginary, which relies in the partition between the sacred space - where the collectivity is placed - and the profane sphere. This form allows the group to recognize itself, but at the same time it transfers the indivisibilities' conflicts onto the relationships with the external and extraneous groups.

¹⁰ In an interview released to Richard Swedberg (1990), Mancur Olson talks about his research project focused on the analysis of indivisibilities, through which he intended to move forward to a convergence of social sciences. Although only a few traces of that project are left, yet they represent the main source of our inspiration.

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