

Fixation of Belief and Membership: A Contribution to the Understanding of the Detrimental Outcomes of Institutions

Alice Sindzingre

▶ **To cite this version:**

Alice Sindzingre. Fixation of Belief and Membership: A Contribution to the Understanding of the Detrimental Outcomes of Institutions. 10è Congrès de l'Association Française d'Economie Politique (AFEP): Ressources, Association Française d'Economie Politique (AFEP), Jun 2021, Toulouse, France. halshs-03625238

HAL Id: halshs-03625238
https://shs.hal.science/halshs-03625238

Submitted on 30 Mar 2022

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Fixation of Belief and Membership: A Contribution to the Understanding of the Detrimental Outcomes of Institutions

Alice Nicole Sindzingre[1]

Abstract

The contribution of institutions to growth or to stagnation (or even 'collapse') is a recurrent question in economics. The paper analyses the causalities according to which institutions generate behaviour that is detrimental to prosperity. Departing from mainstream explanations ('dysfunctionality', 'extraction'), it argues that institutions are composite concepts, which include forms and contents that evolve with time and contexts, and imply cascades of processes involving individual cognition and social interactions: yet certain beliefs may be subjected to processes of 'cumulative fixation', in contrast with refutable ones (e.g., scientific beliefs), and these processes are key mechanisms of stagnation. The article shows that some institutions can be related to others via sequential ordering, and that in an evolutionary perspective norms governing group membership (via, e.g., kinship, class, occupation) constitute 'core' institutions: more than others, these induce a cumulative fixation of beliefs and shape economic outcomes due to their key property, i.e. the generation of social classifications that orient individual behaviour vis-à-vis other individuals ('we'/'them', 'superiors'/'inferiors'). When contexts change, this ordering may evolve in asymmetries, where some beliefs and norms absorb or crowd-out others via mechanisms of cumulative causation, self-reinforcement and lock-in. Being more 'core', stable, than others, membership institutions drive such evolutions due to common features: beliefs that exhibit a high degree of fixation, deontic force and non-refutability and provide high cognitive and emotional rewards, thus reinforcing incentives to adhere to them and having the greatest ability to persist whatever their economic effects.

Keywords: institutional economics; heterodox economics; social norms; individual cognition.

JEL: B52; O43; D02.

[1] Visiting Lecturer, School of Oriental and African Studies (SOAS), University of London, department of economics; Research Associate, Paris-North Economics Centre (University Paris 13-National Centre for Scientific Research/CNRS). Email: ansindzingre@orange.fr. Paper presented at the 10th Congress of the Association Française d'Economie Politique (AFEP), Toulouse and online, 29 June-2 July 2021. Previous versions of this paper were presented at the World Interdisciplinary Network for Institutional Research (WINIR) Conference, Chinese University of Hong Kong, Hong Kong, China, 14-17 September 2018, and at the 16th International Conference 'Developments in Economic Theory and Policy', Bilbao, Faculty of Economics and Business of the University of the Basque Country UPV/EHU, 27th-28th June 2019.

1. Introduction

The contribution of institutions to economic growth or, in contrast, to stagnation and even 'collapse', is a central question in institutional economics. With low-income countries as a background, this article analyses the second aspect, the causalities according to which institutions generate behaviour that is detrimental to prosperity. Departing from existing explanations (e.g., dysfunctionality, 'extractive' institutions), its argument uses concepts from anthropology, cognitive science and philosophy. Yet it remains uneasy to assess the concept of 'being detrimental'. The negative impacts of institutions can be assessed in terms of a variety of domains, e.g., on efficiency, income or welfare, and moreover many societies have put in place different criteria of achievement.

It is argued that institutions are concepts (i.e. only their attributes are observable), which are moreover composite, in the sense that they include forms and contents (mental representations) that combine in ways that constantly evolve with time and contexts. They imply cascades of processes involving individual cognition and interactions between individuals (formation of deontic representations in the mind, language, dissemination of some of these deontic representations if they are made public, objects, rituals, power). Yet certain types of beliefs may be subjected to processes of 'cumulative fixation', these beliefs contrasting with refutable ones (e.g., scientific beliefs): these processes are key mechanisms of economic stagnation.

Some institutions are related to others by sequential orderings. In an evolutionary perspective, some institutions can be viewed as 'core' and more resilient, as they involve mental representations referring to the ontology, identity and security of individuals: these are typically the institutions organising group membership - vis-à-vis the 'external' world ('we' vs. 'them'), and internally through hierarchies (e.g., 'superiors' vs. 'inferiors', men vs. women, elders vs. younger ones), via, for example, kinship, language, occupation, territory or class. The point is that such membership institutions are particularly prone to processes of cumulative fixation of beliefs, and moreover, to impacts on economic outcomes (poverty, prosperity) because of their key property, i.e. the generation of social partitions, hierarchisations and exclusions that orient individual behaviour vis-à-vis other individuals.

When contexts change, this ordering of institutions may evolve in increasing asymmetries across institutions and beliefs, and even in their eviction or absorption: some beliefs, institutions and social norms may absorb or crowd-out others, which become subservient to the former, according to processes of cumulative causation, self-reinforcement, lock-in effects, thresholds, and tipping points ('traps'). Due to the compositional nature of institutions, these combinations, imbalances and asymmetries among institutions are time and space-dependent, they are not *ex ante* predictable, and are observed only *ex post*. Because membership institutions – e.g., those defining ethnic groups, territories, classes, religions - are more 'core' than others and more subjected to cumulative fixation of beliefs, they are more likely to be the vectors of the abovementioned eviction of other beliefs and institutions, as well as locking-in and exclusionary effects, with potentially detrimental economic outcomes. Such evolutions are favoured by properties that these membership institutions have in common: they are

more stable, ‘inert’, than others, the degree of fixation of beliefs is higher, they are organised in non-refutable devices and they provide high cognitive and emotional rewards. In the context of cognitive cascades and discontinuities, the institutions that have the strongest deontic force and capacity of providing security create the strongest incentives to adhere to them: therefore, whatever their economic effects, and even if these are detrimental (possibly ‘because’ economic environments are adverse), these institutions have the greatest ability to persist, feed on and reduce the relevance of other institutions and beliefs: membership institutions are key illustrations of such institutions and of the vicious circles analysed above.

The article is structured as follows. Firstly, it discusses the epistemic validity of explanations of (detrimental) effects of institutions by intrinsic properties. Secondly, it explains some fundamental theoretical features of the concept of institutions, notably. that they are primarily mental representations, with the possibility that some beliefs are more ‘fixed’ that others. Thirdly, it shows that among institutions, some of them are ‘core’ institutions in all societies, i.e. membership institutions. Finally, in this perspective, it highlights that membership institutions are particularly subjected to this cumulative fixation of beliefs, as well as asymmetries, crowding-out and locking effects regarding beliefs and behaviour: such dynamics may result in outcomes that are detrimental to the prosperity of societies and the welfare of the individuals who constitute them.

2. Explaining consequences of institutions by intrinsic properties?

The economic literature on institutions – in other words, beliefs that generate rules of behaviour, norms and institutions – is vast. According to canonical distinctions, they can be conceived as ‘rules’ (North, 1990), but also as ‘equilibria’ of strategic games (Aoki, 2001), with the definition of institutions as systems of rules being viewed by some studies as more pertinent (Hodgson, 2015). The literature on the impacts of institutions is equally vast. It does not provide firm assessments of causal relationships between economic indicators (such as growth or income) and specific categories of institutions: *ex ante*, there is no institution that would ‘cause’ growth or lack of it (Engerman and Sokoloff, 2003; Przeworski, 2004). At the conceptual level, therefore, the definitions of the institutions that generate behaviour, which is detrimental to prosperity, and the assessment of the related causalities, depend on the concepts that have been devised for this definition. North’s classical definition relies on a functionalist view of institutions (e.g., reducing transaction costs); the characteristics of such institutions are therefore conceived as dysfunctions, which, however, under-specifies the domain and impacts of these. Similarly, for Acemoglu and Robinson (e.g., 2012), the impacts of institutions on economic outcomes – the failure or success of countries - may be explained by intrinsic properties of these institutions (by intrinsic functions such as being ‘extractive’ or ‘inclusive’). On the other hand, the definition of institutions as equilibria suggests that detrimental impacts would result from disequilibria of strategic games, with these detrimental impacts therefore not resulting from intrinsic properties or dysfunctions.

Equally, the concept of being ‘detrimental’ implies criteria. In the economics discipline these criteria are economic, properties of institutions being assessed in terms of their

negative impacts on efficiency, income or welfare (they may be viewed as 'inferior' institutions, Belloc and Bowles, 2013). In many non-industrial, non-fully capitalist societies - but also in modern societies -, however, institutions and social norms may give rise to different criteria of achievement, for example status or honour. For example, conspicuous consumption inherent in North American Indian potlatch (Mauss, 1924), or endemic warfare among lineage societies may be suicidal from the point of view of economic efficiency and wealth creation, but are optimal institutions when status and honour are the overarching goals (as often in 'collectivist' societies, in contrast with 'individualist' ones, Greif, 1989; 1994).

Indeed, the explanation of consequences of given institutions and norms by properties they would exhibit *ex ante* and which would specify them is a matter of debate. An institution may be viewed as 'objectively' exhibiting detrimental effects when individuals who follow or are governed by the rules of this institution are affected by negative events: they die, are impoverished, and so on. History provides many examples of institutions that destroy some categories of individuals to which they are applied, e.g. slaves or serfs in certain societies. Similarly, in the past and in the contemporary developing world, some societies have disappeared on account of their institutions or social rules. Yet the notion of intrinsic properties of an institution or a norm is uneasy to handle. It is difficult to qualify *ex ante* properties of beliefs, institutions, social norms or rules of behaviour, which would be inherently detrimental: these appear to be relative to contexts, and moreover, an 'objectively' detrimental character of an institution is uneasy to disentangle from the beliefs that represent this institution, which can strongly differ (individuals believing, e.g., that these institutions enhance their welfare and defending them).

Ethical criteria do not clarify *ex ante* assessments regarding the detrimental consequences of an institution, as they involve considerations on the validity of external judgements. For example, societies that exclude or classify as 'objects', non fully humans, large segments of their populations do not see themselves as 'monstrous'. Examples abound in world history: e.g., slave or castes societies, or societies where women are inferiorised. These types of societies are pervasive across the world and do not perceive their institutions as obnoxious.

Likewise, institutions evolve, as all living entities or products of living entities (Nelson and Winter, 1982; Hodgson, 1999). Yet this evolution may not always be an adaptation to an external environment that results in the selection of the 'fittest'. This point has a correspondence in evolutionary biology, and though this remains controversial (Sober, 2010; Thomson, 2014), as argued by Fodor and Piatelli-Palmarini (2010), some phenotypes may emerge in a species while they do not confer any advantage to the species in question (e.g., additional wings and big eyes for certain flies). Institutions and social norms may similarly emerge, while they do not exhibit any advantage or 'fitness' regarding the adaptation to the environment – and to put the reasoning further, can even lead the individual or the population to disappear.

For example, societies may follow rules of behaviour that lead them *ex post* to 'tipping points' and 'collapse' (Diamond, 2005). Examples are the 'felling of the last tree', according to processes of prisoner's dilemmas, where individual short-term time horizon and expectations of gains result in processes of cumulative causation, tipping points and overall losses for a society. Easter Island is a classical example of such a

'collapse', which may result from a combination of short-term expectations and interests (limiting the cooperation between social groups, De la Croix and Dottori, 2008), rules of behaviour (governing, e.g., the exploitation of resources) with external causes (e.g. diseases) (Brandt and Merico, 2015). Other examples may be the emergence of generalised warfare in response to some change (internal or external to a society), which induces the collapse of that society, or incentives to extreme individualism due to survival constraints (Turnbull, 1972).

Equally, for example, a social norm such as having many children may be optimal in a context of high infant mortality but may entail negative effects in terms of income or welfare when the context changes, e.g. most children survive due to improvements in public health. Such dynamics, where change in contexts generate detrimental consequences, also typically persist due to characteristics of individual reasoning in situations of short time horizons and incomplete information, where individual reasoning cannot move from the individual level to aggregate levels and apprehend effects that differ across levels. More generally, prisoner's dilemmas are typical examples of positive effects at the individual level that become negative at the aggregate level.

3. Institutions as mental representations and the possibility of fixation of belief

Institutions are concepts, i.e., only their attributes are observable (Sindzingre, 2017; 2019) – a fact that is sometimes under-addressed in the literature on institutions. The concept of institution involves names (e.g., 'institution', 'rule', 'right', 'norm', 'democracy', 'kingship', 'marriage', etc), but also the reference and the sense of these names, as shown by Frege (1980), who moreover underscored the 'context principle', i.e. that the meaning of a word does not exist in isolation, but only in the context of a proposition. Words are associated by individuals with a great number of descriptions ('families' of descriptions, Wittgenstein, 1953).

The concept of institution refers to composite entities: an institution or a norm include a great variety of observable forms (including names) and contents (mental representations). Contents may change across space and time while forms – notably names – may remain identical in appearance (e.g., 'democracy', 'contracts', etc), and, conversely, forms may change while representational contents remain identical (e.g., authoritarian representations of power may persist within democratic forms of institutions). As institutions are composite entities that combine forms and contents and combine with each other, they depend on contexts and transform with their environments, be they natural, economic or social. The different elements of the concept of institution all combine in ways that constantly evolve with time and contexts (Richerson and Boyd, 2005; Boyd and Richerson, 2006) – this emphasis on the composite nature, co-evolutionary dynamics and context-dependence of institutions diverges from approaches viewing institutions as stable and encompassing regimes or orders (e.g., North et al., 2009).

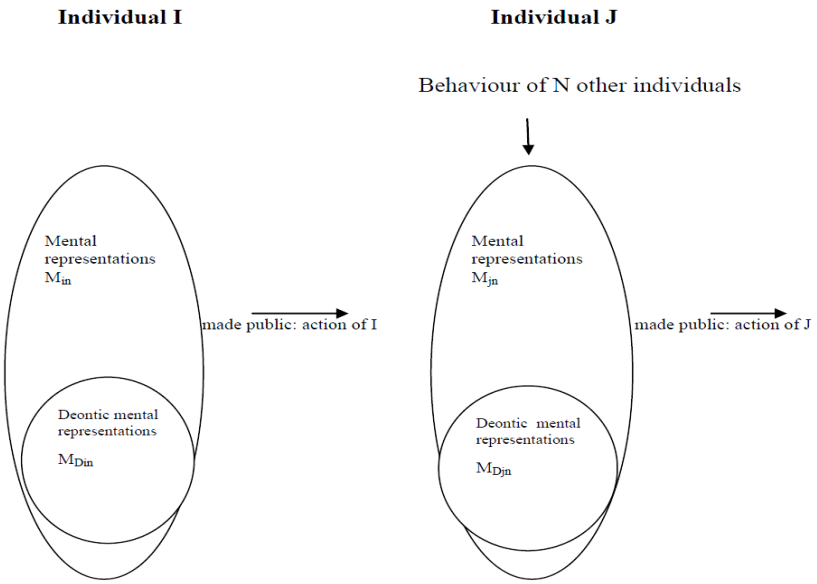
An institution, a social rule or norm, is thus firstly a mental representation, a belief, but of a specific sort. It is a mental representation with a deontic dimension, i.e. it is embedded in a propositional attitude of the type 'I must', 'I should', etc.: it is a

(deontic) representation of another representation, or, in Sperber's words, a meta-representation (Sperber, 2000). For this deontic mental representation existing within the brain of individual I to then become an institution or a social norm, this deontic mental representation must be made public via action (including language) to another individual J, who will react to these public representations and/or actions in various ways: i.e. individual J will interpret these public representations (this interpretation strongly depends on and varies with J's own historical experience and position in a society) and find them relevant or not through a variety of cognitive, linguistic, and social mechanisms (Sperber and Wilson, 1986). Among the mechanisms generating relevance or compliance – which remain debated – there are the activation of the singular psychological history of the individual, power (that of parents over their children, or that of social hierarchies), education, the imitation of the other's behaviour (which constitute 'memes', Dawkins, 1976) or, in contrast, the ignoring of others' behaviour: the deontic representation of individual I ('I must do this', 'you must do that'), when it is made public, may or not generate an internal representation in individual J, which may or not also be of a deontic nature, and may or not generate a behaviour in individual J. The ability of certain representations to be more relevant than others at a given time, their dissemination and stability, may be said to constitute a 'culture' (Sperber and Hirschfeld, 2004).

This shows that an institution requires more than two individuals. This likewise shows that an external observer can never know that I and J hold beliefs that are identical (Putnam, 1981) when their behaviour seems to follow the rules of an institution (e.g., when they vote, sign a contract, etc) or a social norm (e.g., attending a ritual, going to a church, etc). It can even be argued that for an individual the thought that she follows a rule 'privately' is an illusion (Kripke, 1982). Moreover, this external observer can never induce with certainty from the observation of behaviour of I that this individual I follows a rule of behaviour, nor can this observer induce which rule it could be (Kripke, 1972). This observer can moreover never be sure that an identical behaviour of I and J results from the fact that 'in their minds' they would follow identical rules. In sum, in these processes, as no one has access to the mental representations of others, and even the individual herself, the other individual can only presume that the content of her mental representation is identical, and, moreover, an external observer of these individuals acting can only presume that their action follows a rule, and also that their action derives from the same social rule.

The arrows in the figure below summarise the endless succession of formation of mental representations and dissemination of them when they are made public: the public representations of I, J, etc are made public to N other individuals and I, J, etc, are exposed to the behaviour (public representations) of N other individuals.

Figure 1: The formation and dissemination of deontic beliefs



Equally, the scope of institutions is variable and depends on contexts, and notably on the segmentary character of social groups that in a circular way are defined by the common sharing of certain beliefs: three people can make a group that can generate a social norm; sharing the norm of common language, territory and nation (being an Occitan, a Londoner, a French, a Westerner, etc.) defines a given group. Yet in this process, similarly external observers can only presume, and cannot be certain, that the action of these observed individuals follows a rule and, moreover, the same social rule.

Institutions thus imply cascades of processes involving individual cognition and interactions between individuals: formation of deontic representations in the mind, language, dissemination of some of these deontic representations if they are made public, objects, rituals, power, among others. These processes are characterised by discontinuities between thought and action: i.e. no 'rationality', and for an individual no more than a 'privileged access' to her mind and will, as shown by the concept of *akrasia*, 'the weakness of the will', or 'acting against a better judgement' (Davidson, 1980).

However, in these cascades some sets of beliefs may be subjected to processes of 'fixation' in an individual's mind. These beliefs become more stable than others via various mechanisms: e.g., emotions, interests, incentives, relevance, mimicry, deliberate rejection of other beliefs, coercion, social rituals (such as initiation rituals that 'print' beliefs and causalities in a brain, Barth, 1975 on Baktaman rituals), etc. According to such mechanisms, a context (e.g., a percept, the exposure to some statement) induces a given belief in the mind of an individual; for idiosyncratic reasons (emotions, power, personal history), this belief may have a greater degree of fixation than others in the mind of this individual. The point is that with time any new percept or exposure, whatever it is, confirms this existing belief according to the dynamics of cumulative causation or self-justification (Bateson, 1971). These mechanisms of cumulative and self-reinforcing fixation of beliefs generate sets of beliefs, including deontic ones, which become non-refutable whatever the inputs to which a human mind is exposed

(percepts, logical reasoning, new information, scientific truths, etc). For example, if an individual A has the belief that 'all individual Bs are X ('evil', 'threats', etc)', whatever the properties of B, each time A meets a B, A infers that this B is X and is reinforced in his belief - A may even derive from this inference a rule of behaviour (e.g., 'I must eliminate any exemplar of a B whom I meet'). This lack of relationship between belief and truth in the mechanisms of fixation of beliefs has long been investigated by philosophy or epistemology (Peirce, 1877), for example with the concept of non-falsifiability (Popper, 1959). Similarly, anthropology, with the analysis of so-called 'magical' beliefs, has long analysed the universality and cognitive mechanisms of fixation of beliefs (Horton, 1967; Boyer, 1992). Any belief, whether it relates to the political, social, or unobservable ('religious') domain may be subject to such 'cumulative fixation'.

While it is uneasy to assign *ex ante* a detrimental character to an institution, these mechanisms of fixation of beliefs, and possibly of deontic beliefs commanding particular behaviours, are likely to induce locking-in effects and detrimental consequences on the welfare of those who hold them as well as those who are exposed to them. They constitute key mechanisms where institutions may contribute to economic stagnation.

4. Sequential ordering of institutions: membership institutions as 'core' institutions

Moreover, contrary to neo-institutionalist views for which institutions are defined and hence differ by their functions, institutions display hierarchies in the sense that in the mind of individuals and in their actualisation as rules organising societies, some institutions and norms are related to others by sequential orders. The complementarity between institutions has already been underscored (Aoki, 2001; Amable, 2003). Yet beyond the broad concept of complementarity, institutions may constitute sequences where the content and forms of certain institutions are shaped by those of other institutions: some institutions appear as more 'fundamental' than others regarding their emergence and persistence in the minds of individuals.

Some institutions can be coined as 'core' ones, i.e. as institutions that are more resilient, with forms being more stable than others. Such institutions are typically those that organise group membership (parents and children, kinship groups, groups defined by territories, nation, occupation, religion, class, etc). Membership institutions and the related hierarchies exist in all human societies; they even organise behaviour in some non-human social species, such as great apes (including non-mammals, e.g., social insects - though because language and 'culture' are full constituents of membership institutions in human societies, the concepts of membership and hierarchy there obviously refer to different contents and mechanisms). As shown by anthropology in an evolutionary perspective, all societies since Palaeolithic times have defined individuals as members of groups, typically kin groups, and this membership constitutes the set of social norms and 'culture' these individuals have in common, i.e. the beliefs (including deontic beliefs) that have disseminated within this group and are shared by it (Hirschfeld, 2007). Societies pre-exist to the individual in this sense. These institutions and norms governing membership can be called 'core' or 'prior' because in a sequential,

lexicographic order, they command all other institutions, because the compliance with all these other institutions depends on the membership that an individual has: for example, a French, or an Inuit, or a Guayaki, etc, comes under the 'jurisdiction' of and complies respectively with French, Inuit or Guayaki institutions. For an individual I, perceiving oneself (or being assigned by another individual) within some membership, commands the fact that she will follow the rules of a great number of institutions that define and are attached to this membership, e.g. certain types of political systems, economic rights, norms of behaviour, rituals, etc. Such institutions are driven by evolution and are themselves internally based on hierarchy (external, 'we' vs. 'them', and internal, men vs. women, elders vs. younger ones, with relationships of domination of the former over the latter, which differ for other mammals). These institutions can be viewed as more 'core' than other ones, because they organise the behaviour of individuals who perceive that they belong to the group, as well as the behaviour vis-à-vis individuals who are perceived to be situated outside the group. Symmetrically this membership (of individual I of group A) organises the behaviour of individual who are outside of group A, of all non-A individuals. These groups have scopes and boundaries that vary with contexts (an urban vs. a countryman, a Frenchman vs. a British; a Christian vs. a Buddhist; a member of clan M vs. a member of clan N, etc). Similarly, memberships are key examples and illustrations of the compositional view of institutions, i.e. forms can be stable, but contents (representations) change (and vice-versa). For example, the form 'being a member' is stable, but the representational content may change with time or via written legal rules (e.g., being an 'enemy of the people', being a Briton or a peasant, etc).

These membership institutions generate a 'culture' for members, i.e. sets of shared beliefs (or presumption of shared beliefs). This 'culture' is consubstantial to the group: a group is a number of individuals who share common beliefs and rules of behaviour, and individuals who share (or presume they share) common beliefs and rules constitute a group. For the individuals sharing them, these 'cultures' generate binary partitions of the world regarding the other 'cultures' ('we/us'; being 'in/out'). Membership is so powerful an institution that it induces statistical discrimination: the observation by an individual J of an individual I who exhibits the feature F generates specific mental representations and causal inferences on all individuals that display this feature F. At the same time, for a given individual, such partitions of the world are many, because in all societies individuals belong to a great number of membership groups, via birth, acquisition, temporary situations, and so on.

5. Membership 'core' institutions as vectors of cumulative fixation of beliefs and asymmetries in institutions

The ambiguity of ex ante causalities regarding membership institutions

Membership in social groups and hierarchies within and among groups are examples of the abovementioned ambiguity and context-dependence of the causalities between institutions and their consequences.

For example, membership institutions may be viewed as bearing an evolutionary advantage, such as improving fitness and chances of survival compared with individuals

living and behaving in isolation (Hamilton, 1963 in reference to kin; Kurzban and Neuberg, 2005), and indeed in a functional perspective they may be viewed as devices that reduce information or search costs.

Other examples, the causalities involving membership institutions such as religions are ambiguous as religions include features that may be viewed as characteristics of irrationality, e.g., rules that are emitted by entities for which there is no evidence of any existence, belief in such entities, voluntary servitude, alienation of behaviour that can even go to the voluntary suppression of the life of the believer. Behaviour can also be alienated to rules that cannot be changed as they were emitted by individuals who lived in the past ('tradition'). Yet these sets of beliefs and associated institutions are not viewed as detrimental by individuals who believe them – as well as those who do not believe them.

Similarly, membership institutions organising the servitude and alienation of the poorest to their masters, and the persistence of the associated social hierarchies (master and slaves, men and women, capitalists and proletarians) may *ex ante* be viewed as irrational, as the dominated are much more numerous than their masters and should always overthrow them. Yet such institutions typically persist over long periods of time (Bowles, 2006) and cannot be disentangled from sets of beliefs - the involved individuals believing, for example, that these are 'facts of nature' or even enhance the welfare of all.

Indeed, the number of 'believers', of individuals adhering to an institution or norm, has consequences on the content of beliefs, and if these individuals constitute a majority in a given population, these institutions are not viewed as having negative consequences: the number of holders determines the mental representations of an institution or norm (as 'normal' or not).

Detrimental ex post evolutions: membership institutions as vectors of cumulative fixation of beliefs via cognitive and emotional rewards

However, membership ('we/them') and hierarchies are institutions that 'by design' involve discrimination and exclusion vis-à-vis 'non-members' or certain segments of population within a society. In Sparta for example (Cliff, 2009), being a slave implied to be exposed to permanent warfare and arbitrary killings (as was the case for inferiors among, e.g., Aztecs). Equally, at historical scales, membership institutions have recurrently induced behaviour where a group could exterminate great numbers of individuals ('them'), with the belief that this behaviour is legitimate (and with observers sometimes viewing that as 'normal', as an expected behaviour, e.g., a social norm within the institution of warfare).

Similarly, such membership institutions are prone to generate detrimental consequences when combined with certain changes in contexts, due to the high degree of fixation of beliefs and related behaviour which they involve, because these beliefs refer to the representation by an individual of her identity, security and ontology and are reinforced by the emotions associated with such representations (Damasio, 2018). For example, Maya civilisation disappeared due to a combination of unchanging institutions organising its membership and hierarchies with a changing environment – unchanging norms of wealth and power visibility having led to an overconsumption of stucco and

therefore the felling of trees and destruction of forest resources and the environment (Hansen, 2017): the combination of 'core', stable, rules of behaviour with a changing environment induced cumulative causation dynamics and tipping points that *in fine* had deleterious effects.

This ordering in institutions where some institutions and beliefs are more 'core', 'inert', than others may evolve in increasing asymmetries, including eviction or absorption of other institutions: some sets of beliefs, institutions and social norms may 'phagocytose' or 'parasitise' (von Jacobi, 2018), i.e. absorb, crowd-out, eliminate, other beliefs, institutions and norms, the latter thus becoming subservient to these beliefs and norms. The mechanisms that generate such processes typically rely on cumulative causation, self-reinforcement, lock-in effects and 'traps' (Arthur, 1994; Azariadis and Stachurski, 2005; Barrett and Swallow, 2006).

Because institutions organising membership and hierarchy are more 'core', or 'prior', than others, both at the ontological and social levels, these institutions are more vulnerable to the abovementioned evolution of beliefs and institutions towards increasing asymmetry and crowding out of existing institutions and beliefs. Due to the composite (compositional) nature of institutions, however, these combinations, imbalances and asymmetries among institutions are specific in time and space, cannot be predictable *ex ante*, and are observed only *ex post*. Typical examples are the institutions that define language and ethnic groups, territories, classes, political affiliations, and religions. These institutions are particularly prone to generate processes of endogenous cumulative causation, including traps, self-reinforcement, tipping points and ratchet effects. For example, for given social groups, affiliations of in-group individuals and assignments by out-group individuals induce specific economic effects that reinforce the memberships in such groups (Durlauf, 2000; Durlauf and Young, 2001).

Such evolutions are favoured by a series of properties that these membership institutions have in common: as they organise the ontological security, social and cultural identity and life-cycle of individuals, the intensity in the human mind of the fixation of related beliefs is high and fosters the non-refutability of these beliefs (i.e. any new event confirms the existing belief). This may be reinforced by the fact that these beliefs often deal with non-observable entities ('golden age', 'paradise', 'nation', 'ancestors', etc.) (Boyer, 2001). These sets of beliefs, moreover, provide high cognitive and emotional rewards. In the context of cognitive cascades and discontinuities described above, the institutions that have the strongest deontic force and capacity for providing security – within the group and vis-à-vis other groups – thus include the strongest incentives to adhere to them and therefore the strongest ability to persist and to reduce the relevance of other institutions. Cognitive and emotional rewards provided by membership may be incommensurably higher than other institutions (Atran and Ginges, 2012; Gomez et al., 2017 on religion; Bowles and Polanía-Reyes, 2012). Membership institutions can feed on all other institutions and norms, e.g., those organising individuality, emancipation, citizenry, even at the expense of the welfare of individual who adhere to these institutions. Castes, which may maintain some of their members in poverty (Hoff, 2016; Wagle, 2017), are examples of institutions where membership subjugates all other institutions and norms of behaviour. Discrimination via an external feature associated with inferiorisation is another example of a membership norm that subsumes all other norms of behaviour and negatively affects the welfare of

the discriminated in rejecting them as 'non-us' (Sindzingre, 2018). 'Fanaticism', or 'extremism' – whatever the representations that feeds them, class, 'race', religion, etc. – are typical examples of sets of beliefs and associated norms that become so fixed in the mind of an individual that they eliminate all other beliefs. They are so fixed that all other beliefs become subordinate to them and they impregnate all other beliefs and associated behaviours. In another perspective, the concept of alienation has referred to such facts and, moreover, has shown that individuals may persist in adhering to beliefs and norms that can harm them, whatever the exposure of these individuals to other beliefs, ideas and norms.

The pervasiveness of membership institutions seems to have been reduced in modern societies with the expansion of capitalism and individualism from the 19th century onwards, followed by the so-called process of globalisation. This dynamic has been associated with lesser violence, which may be viewed as a positive institutional change (Pinker, 2011). The 'core' character of membership institutions seems to be a trait of precapitalist societies, for example those based on kinship and lineages. Likewise, in contemporary times, in environments where the state has disappeared or collapsed, such as in some poor developing countries (e.g. in Sub-Saharan Africa), for some individuals proximal group memberships (village, kinship) may become more relevant. Yet membership institutions also structure market societies and capitalist accumulation behaviour - they gave birth to these market societies, as shown by merchant guilds in pre-modern Europe (Milgrom et al., 1990; Greif, 2006; Edwards and Ogilvie, 2012; Ogilvie and Carus, 2014 on the role of public authorities). In modern market societies membership may have been provided by the state (or the nation) and even broader affiliations (e.g., with the enlightenment, 'humankind'), but categorisation persists (Hoff and Walsh, 2018) and a variety of affiliations also flourish – e.g., villages and family ties, classes, occupation – among which 'capitalists' may even make tradeoffs and which may be treated as assets. Beliefs in some 'communities' or common 'brotherhoods' also flourish in modern societies: these are typically provided by political ideologies or religions, which constitute efficient sets of beliefs for providing membership because these beliefs address the totality of life and organise rituals and prohibitions (i.e. action) also for the totality of life ('from the cradle to the grave'). Also in market societies, this power of membership makes it so that in certain contexts membership institutions are no longer constrained by the existence of other institutions (e.g., higher-level state institutions), which could have contained the extension and relevance of membership for an individual. Also in market societies, for some individuals it may happen that all beliefs and rules of behaviour become subservient, ancillary, to institutions that partition and classify all individuals.

6. Conclusion

This article has analysed the various causalities that may underlie the detrimental consequences of institutions or social norms. Such an analysis requires having a theory of institutions and norms, a building of the concepts, as consequences of institutions or norms depend on the definitions of these concepts.

The article has emphasised that institutions are mental representations that mobilise cascades of cognitive processes, which are supported by their dissemination across

other individuals and by physical objects. The article has then underscored the heterogeneous nature of institutions, in contrast with recurrent views of institutions, where these are defined by their function or as games equilibria. It has shown that there is a hierarchy or, in other words, a sequential order of institutions: in an evolutionary perspective at the levels of individual psychology and societies, a specific category of set of beliefs and associated institutions is more 'core', 'prior', than others, as this core category determines an individual's adherence to other institutions: i.e. institutions governing the membership of individuals of the (infinity of) groups that constitute a society.

The article has demonstrated that because these sets of beliefs, institutions and norms are more 'core' than the others, they are more prone to generate mechanisms of non-refutability, cumulative fixation of beliefs and 'phagocytosis' of other beliefs, which results in the absorption or marginalisation of other institutions and beliefs and the formation of cognitive locking-in mechanisms. Such institutions have a greater propensity to generate detrimental economic outcomes and induce negative welfare effects for the individuals who adhere to them.

References

Acemoglu, Daron and James Robinson (2012), **Why Nations Fail: The Origins of Power, Prosperity, and Poverty**, New York, Crown Business.

Amable, Bruno (2003), **The Diversity of Modern Capitalism,** Oxford, Oxford University Press.

Aoki, Masahiko (2001), **Toward a Comparative Institutional Analysis**, Cambridge MA, MIT Press.

Arthur, W. Brian (1994), **Increasing Returns and Path Dependence in the Economy**, Ann Arbor, University of Michigan Press.

Atran, Scott and Jeremy Ginges (2012), Religious and Sacred Imperatives in Human Conflict, **Science**, vol. 336, n°6083, pp. 855-857.

Azariadis, Costas and John Stachurski (2005), Poverty Traps, in Philippe Aghion and Steven Durlauf eds., **Handbook of Economic Growth**, Amsterdam, Elsevier.

Barth, Fredrik (1975*)*, **Ritual and Knowledge among the Baktaman of New Guinea**, New Haven, Yale University Press.

Barrett, Christopher B. and Brent M. Swallow (2006), Fractal Poverty Traps, **World Development,** vol. 34, n°1, January, pp. 1-15.

Bateson, Gregory (1971), Communication (Introduction), in Norman A. McQuown ed., **The Natural History of an Interview**, Chicago, University of Chicago Library.

Belloc, Marianna and Samuel Bowles (2013), The Persistence of Inferior Cultural-Institutional Conventions, **American Economic Review**, vol. 103, n°3, May, pp. 93-98.

Bowles, Samuel (2006), Institutional Poverty Traps, in Samuel Bowles, Steven N. Durlauf and Karla Hoff eds., **Poverty Traps**, Princeton, Princeton University Press.

Bowles, Samuel and Sandra Polanía-Reyes (2012), Economic Incentives and Social Preferences: Substitutes or Complements?, **Journal of Economic Literature**, vol. 50, n°2, pp. 368–425.

Boyd, Robert and Peter J. Richerson (2006), Culture and the Evolution of the Human Social Instincts, in Stephen C. Levinson and Nicholas J. Enfield eds., **Roots of Human Sociality: Culture, Cognition and Interaction**, Oxford, Berg.

Boyer, Pascal (1992), Explaining Religious Ideas: Elements of a Cognitive Approach, **Numen**, vol. 39, n°1, pp. 27-57.

Boyer, Pascal (2001), **Religion Explained. The Evolutionary Origins of Religious Thought**, London, Random House, and New York, Basic Books.

Brandt, Gunnar and Agostino Merico (2015), The Slow Demise of Easter Island: Insights from a Modeling Investigation, **Frontiers in Ecology and Evolution**, vol. 3, article 13, February, pp. 1-12.

Cliff, Ursula (2009), **Slavery in Ancient Greece.** https://cliojournal.wikispaces.com/Slavery+in+Ancient+Greece

Croix, David de la and Davide Dottori (2008), Easter Island's Collapse: A Tale of a Population Race, **Journal of Economic Growth**, vol. 13, n°1, March, pp. 27-55.

Damasio, Antonio (2018), **The Strange Order of Things: Life, Feeling and the Making of Cultures**, New York, Pantheon Books.

Davidson, Donald (1980), How Is Weakness of the Will Possible?, in **Essays on Actions and Events,** Oxford, Clarendon Press.

Dawkins, Richard (1976), **The Selfish Gene**, Oxford, Oxford University Press (3rd ed. 2006).

Diamond, Jared (2005), **Collapse: How Societies Choose to Fail or Succeed,** New York, Viking.

Durlauf, Steven (2000), **The Memberships Theory of Poverty: the Role of Group Affiliations in Determining Socioeconomic Outcomes,** Madison, University of Wisconsin Institute for Research on Poverty working paper 1221-01.

Durlauf, Steven N. and Henry Peyton Young eds. (2001), **Social Dynamics**, Cambridge MA, MIT Press and Washington D. C., Brookings Institution Press.

Edwards, Jeremy and Sheilagh Ogilvie (2012), What Lessons for Economic Development Can we Draw from the Champagne Fairs?, **Explorations in Economic History**, vol. 49, n°2, pp. 131-148.

Engerman, Stanley L. and Kenneth L. Sokoloff (2003), **Institutional and Non-Institutional Explanations of Economic Differences**, Cambridge MA, NBER working paper 9989.

Fodor, Jerry A. and Massimo Piatelli-Palmarini (2010), **What Darwin Got Wrong**, London, Profile Books.

Frege, Gottlob (1980) (Über Sinn und Bedeutung, 1892), On Sense and Reference, in Peter Geach and Max Black eds., **Translations from the Philosophical Writings of Gottlob Frege**, 3rd ed., Oxford, Blackwell.

Gomez, Angel, Lucía López-Rodríguez, Hammad Sheikh, Jeremy Ginges, Lydia Wilson, Hoshang Waziri, Alexandra Vázquez, Richard Davis and Scott Atran

(2017), The Devoted Actor's Will to Fight and the Spiritual Dimension of Human Conflict, **Nature Human Behaviour,** vol. 1, September, pp. 673–679.

Greif, Avner (1989), Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders, **Journal of Economic History**, vol. 49, n°4, December, pp. 857-882.

Greif, Avner (1994), Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies, **Journal of Political Economy**, vol. 102, n°5, October, pp. 912-50.

Greif, Avner (2006), History Lessons: The Birth of Impersonal Exchange: The Community Responsibility System and Impartial Justice, **Journal of Economic Perspectives**, vol. 20, n°2, Spring, pp. 221-236.

Hamilton, William Donald (1963), The Evolution of Altruistic Behavior, **The American Naturalist,** vol. 97, n°896, September-October, pp. 354-356.

Hansen, Richard D. (2017), The Feast Before Famine and Fighting: The Origins and Consequences of Social Complexity in the Mirador Basin, Guatemala, in Richard J. Chacon and Ruben G. Mendoza eds., **Feast, Famine or Fighting?: Multiple Pathways to Social Complexity**, Cham, Springer.

Hirschfeld, Lawrence A. (2007), Folksociology and the Cognitive Foundations of Culture, **Intellectica**, vol. 2-3, n°46-47, pp. 191-206.

Hodgson, Geoffrey M. (1999), **Evolution and Institutions: on Evolutionary Economics and the Evolution of Economics**, Cheltenham, Edward Elgar.

Hodgson, Geoffrey M. (2015), On Defining Institutions: Rules versus Equilibria, **Journal of Institutional Economics,** vol. 11, n°3, September, pp. 497-505.

Hoff, Karla (2016), **Caste System**, Washington D. C., the World Bank, policy research working paper 7929.

Hoff, Karla and James Walsh (2018), The Whys of Social Exclusion: Insights from Behavioral Economics, **World Bank Research Observer**, vol. 33, n°1, February, pp. 1-33.

Horton, Robin (1967), African Traditional Thought and Western Science. Part I. From Tradition to Science, **Africa, Journal of the International African Institute**, vol. 37, n°1, January pp. 50-71. Part II: the 'Closed' and 'Open' Predicaments, **Africa, Journal of the International African Institute**, vol. 37, n° 2, April, pp.155-187.

Kripke, Saul A. (1972), Naming and Necessity, in Donald Davidson and Gilbert Harman eds., **Semantics of Natural Language**, Dordrecht, Reidel.

Kripke, Saul (1982), **Wittgenstein on Rules and Private Language**, Cambridge MA, Harvard University Press.

Kurzban, Robert and Steven L. Neuberg (2005), Managing Ingroup and Outgroup Relationships, in David M. Buss ed., **Handbook of Evolutionary Psychology**, New York, John Wiley and Sons.

Mauss, Marcel (1954 [1924]), **The Gift: Forms and Functions of Exchange in Archaic Societies**, London, Cohen and West (1st ed., 1924).

Milgrom, Paul R., Douglass C. North and Barry R. Weingast (1990), The Role of Institutions in the Revival of Trade: the Law Merchant, Private Judges and the Champagne Fairs, **Economics and Politics**, vol. 2, n°1, March, pp. 1-23.

Nelson, Richard R. and Sidney G. Winter (1982), **An Evolutionary Theory of Economic Change**, Cambridge MA, Harvard University Press.

North, Douglass C. (1990), **Institutions, Institutional Change and Economic Performance**, New York, Cambridge University Press.

North, Douglass C. (1991), Institutions, **Journal of Economic Perspectives**, vol. 5, n°1, Winter, pp. 97-112.

North, Douglass C., John Joseph Wallis and Barry R. Weingast (2009), **Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History**, Cambridge, Cambridge University Press.

Ogilvie, Sheilagh and A. W. Carus (2014), Institutions and Economic Growth in Historical Perspective, in Philippe Aghion and Steven N. Durlauf eds., **Handbook of Economic Growth**, vol. 2A, Amsterdam, Elsevier.

Pinker, Steven (2011), **The Better Angels of our Nature**, New York, Viking.

Popper, Karl (1959), **The Logic of Scientific Discovery** (translation of *Logik der Forschung, 1935)*, London, Hutchinson.

Przeworski, Adam (2004), **The Last Instance: Are Institutions the Primary Cause of Economic Development**?, New York, New York University, Development Research Institute.

Peirce, Charles Sanders (1877), The Fixation of Belief, **Popular Science Monthly**, vol. 12, n°1, November, pp. 1-15.

Putnam, Hilary (1981), **Reason, Truth and History**, Cambridge, Cambridge University Press.

Richerson, Peter J. and Robert Boyd (2005), **Not By Genes Alone: How Culture Transformed Human Evolution,** Chicago, University of Chicago Press.

Sindzingre, Alice Nicole (2017), Institutions as a Composite Concept: Explaining their Indeterminate Relationships with Economic Outcomes, **Journal of Contextual Economics,** vol. 137, n°1-2, pp. 167–192.

Sindzingre, Alice Nicole (2018), Can the Concept of Exploitation be Associated with that of Inferiorisation? A Critical Analysis, **Cahiers d'Economie Politique/Papers in Political Economy**, vol. 2018/2, n°75, pp. 203-226.

Sindzingre, Alice Nicole (2019), Concept and Causation: Issues in the Modelling of Institutions, **Forum for Social Economics**, forthcoming.

Sober, Elliott (2010), Natural Selection, Causality and Laws: What Fodor and Piatelli-Palmarini Got Wrong, **Philosophy of Science**, vol. 77, n°4, October, pp. 594-607.

Sperber, Dan (2000), Metarepresentations in an Evolutionary Perspective, in Dan Sperber ed, **Metarepresentations: A Multidisciplinary Perspective**, New York, Oxford University Press.

Sperber, Dan and Lawrence A. Hirschfeld (2004), The Cognitive Foundations of Cultural Stability and Diversity, **Trends in Cognitive Science**, vol. 8, n°1, January, pp. 40-46.

Sperber, Dan and Deirdre Wilson (1986), **Relevance: Communication and Cognition**, Cambridge MA, Harvard University Press

Thomson, Evan (2014), Picking Holes in the Concept of Natural Selection, **BioScience**, vol. 64, n°4, April, pp. 355-358.

Turnbull, Colin M. (1972), **The Mountain People**, New York, Simon and Schuster.

Von Jacobi, Nadia (2018), Institutional Interconnections: Understanding Symbiotic Relationships, **Journal of Institutional Economics**, vol. 14, n°5, October, pp. 853-876.

Wagle, Udaya R. (2017), The Caste/Ethnic Bases of Poverty Dynamics: A Longitudinal Analysis of Chronic and Structural Poverty in Nepal, **Journal of Development Studies**, vol. 53, n°9, pp. 1430-1451.

Wittgenstein, Ludwig (1953), **Philosophical Investigations**, Oxford, Basil Blackwell.