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July 2001

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THE RISE OF THE CLASSICAL GOLD STANDARD: THE ROLE OF FOCAL POINTS AND SYNERGISTIC EFFECTS IN SPONTANEOUS ORDER

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Humane Studies Review
(Forthcoming 2001)

***This project has benefited from the helpful advice of Richard Adelstein, Gus Di Zerega, Aaron Wildavsky, Amy Sturgis, and the anonymous referees of the Humane Studies Review**

1. The Argument

This paper presents a theory of the invisible hand in homogeneous spontaneous orders. It does so by answering three fundamental questions: How do spontaneous orders arise? How are they consolidated? Why do they last? Spontaneous order is conceptualized as a solution to problems of cooperation (i.e., state-of-nature and coordination problems) within variable-sum games in decentralized environments. The processes which solve such cooperation problems must be effective in overcoming various obstacles deriving from limited information, uncertainty, and transaction costs. In the emergence or origin of spontaneous order, certain rules will be selected over others because of social-psychological dispositions (i.e., focal points) among small groups that make those rules desirable as solutions to problems of strategic interdependence. When focal points exist, problems of information, transaction costs and uncertainty are mitigated as individuals can be secure that the behavioral choices they make are also shared by others in the group, thus reducing their vulnerability from exploitation or poor coordination. Focal points fundamentally condition the formation of preferences in choosing rules which facilitate cooperation. Once certain rules are chosen and perform well in facilitating cooperation within some smaller group (the first--or selection-stage), those rules will become more compelling to the greater or larger social system (the second--or consolidation--stage). The mechanism of consolidation, synergistic effects, gives the rules a self-propagating quality: i.e., the incentives encouraging individuals to adopt the rules grow in proportion to the number of people that already follow the rules. Propagation to the larger group will be influenced by the strength of the focal points, with the strongest focal points rendering the most robust propagation process. Once consolidated, a spontaneous order's stability will be influenced both by internal as well as external factors. Internally, perceptions of the desirability of specific rules will be driven by the strength of the focal points which underlie those rules. The stronger the focal points, the greater the stability of the spontaneous order which is founded on those rules. Externally, conditions in the greater social environment play an important role in determining whether the rules remain viable solutions to the strategic problems facing the group at large. If these conditions remain fairly static and focal points remain strong, a spontaneous order can be highly stable. Conversely, dynamic conditions and weakening focal points lead to instability.

The classical gold standard (1880-1914) represents a spontaneous international monetary order whose origin, consolidation, and stability very much reflect the workings of the theory developed herein. The ideology of gold created focal points which made gold attractive as a monetary standard in the latter-19th century. Consolidation of the gold bloc occurred swiftly as supply and demand conditions for precious metals imparted a robust self-propagating quality onto gold. The international monetary order founded on gold remained stable up until World War I as the ideology of gold remained strong and conditions in the greater political economy remained favorable.

In providing a theory of the process by which spontaneous orders form and exploring the process in the context of an international monetary regime, this paper seeks to fill some important gaps in the study of spontaneous order. First, it offers a theory of the invisible hand in homogeneous spontaneous systems. Second, in doing so, it contributes to a theory of preference formation in social systems. Finally, in presenting a case study in spontaneous (monetary) order, it contributes a much needed historical analysis to a literature dominated by theoretical treatments.

The paper is organized as follows. Section 2 cites the limitations of the existing literature on spontaneous order. Section 3 presents a theory of the rise, consolidation, and stability of homogeneous spontaneous orders. Sections 4 to 6 explore the classical gold standard in the context of this theory. Section 7 offers concluding remarks.

2. In Search of the Invisible Hand

The invisible hand has been more venerated by social science than studied. The protagonists in this play, the economists, have thoroughly studied all of the manifestations of the invisible hand: efficiency, equilibrium, cycles, growth, productivity, industrialization, and capitalism to name a few. In essence the outcomes of market processes have been the focal point of attention. The underlying processes which comprise the market have been studied far less. The gap has been partially filled by scholarship in the Austrian tradition which has been most animated by the study of market processes. Much of this work has been manifest under the study of equilibrium and spontaneous order.[1] The Austrians have extensively studied the knowledge problem, competition, the price mechanism, supply and demand, equilibrium, entrepreneurship, and the structure of expectations. This analysis of markets however has benefited our understanding of diversified spontaneous orders (i.e., spontaneous orders which are founded on diversity of action, or what can also be referred to as a division of labor in behavior modes) but has not contributed as much to our understanding of what can be called homogeneous spontaneous orders (orders which are founded on redundancy in behavior modes). The two types of order are quite different in that one thrives on complementarity in the division of labor while the other depends on actors converging on similar actions or rules in organizing their behavior.[2] While the price mechanism, competition, entrepreneurship, supply and demand have a clear role in diversified markets, it is not clear whether their role in homogeneous orders is similar or even relevant for that matter. Moreover, the Austrians, like other economists, have not made substantial headway in resolving the problems involved in the foundations of individual choice: the preference formation problem-which is crucial to understanding the earliest phases of the market process. Adelstein (1996, p. 222) notes that aside from the study of markets, little formal analysis of spontaneous orders has been done, even though numerous scholars have identified such phenomena as pervasive.

Contributions to understanding homogeneous spontaneous order have come mainly in the area of language and norm formation.[3] These studies have contributed to the understanding of

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[1] Hayek's own work progressed from an interest in equilibrium theory to spontaneous order. Scholarship in and about the Austrian tradition is quite large, but especially insightful works on Austrians and the market are Shand (1984), Meijer (1995), Gloria-Palermo (1999), Dolan (1976), and Kirzner (1994, 2000).

[2] The market is the classic example of a diversified spontaneous order. It thrives on a plethora of individuals taking different actions which somehow merge into a working-complementary economic structure. In order for the market to provide optimal economic performance each economic niche must be filled so that the availability of products and services in terms of diversity and abundance must perfectly accord with society's material demands. Conversely, homogeneous orders depend on individual actions converging onto similar behavior modes. Unlike diversified orders, these orders thrive on people doing the same rather than different things. Examples of such orders are language, money, and law.

[3] Studies of norm formation reflect a pronounced sensitivity to the micro-foundations of social integration. See Ullmann-Margalit (1977). Lewis (1969), and Schotter (1981). More recent work in this style comes in Sacco (1997). Adam Smith (1983[1761]) did the earliest known work on the

processes by which individual action merges around central decision rules and forms of communication, but they have left us wanting in crucial areas. The work generally fails to sufficiently analyze the specific selection mechanism by which one norm or type of terminology is selected over another (e.g., why the right side of the street is selected over the left for coordinating traffic flow, or why one type of reciprocity is selected over another in promoting exchange). Rules of behavior and communication are seen as the result of iteration in social interactions, without any systematic identification of why certain rules win out over others. A dominant tradition in the study of spontaneous law formation (i.e., customary or common law) does look at the selection process of laws as being sensitive to costs: that is, the most efficient laws will be chosen because they minimize costs and can maximize benefits for judges. But there is no analysis of inherent qualities of specific rules that would make them desirable vis-a-vis equally efficient rules.[4] On a whole, the work on spontaneous systems generally posits norms as exogenous (they simply emerge as solutions to variable-sum games in order to bring individuals to Pareto-superior social outcomes). To make an analogy to weather, neither snowflakes nor raindrops form spontaneously, but instead form around dust particles. The extant literature on homogeneous spontaneous orders has been guilty of concentrating on the snowflakes and raindrops themselves, and has had much less to say about the dust particles. Furthermore, the simple coordination approach (i.e., path dependence) may explain the emergence of homogeneous actions in a social system, but does not explain why those actions are maintained over time. With money, norms, law, and language, initial paths may become compelling, but they change from time to time as societies evolve, and new institutions emerge. Finally, the work on homogeneous orders is largely theoretical: there is a need for actual case studies of homogeneous orders.[5]

More recent contributions in the study of norms and law by Ellickson (1991), Ostrom (1990), Cooter (1994, 2000), Bicchieri (1997), and Cooter and Fikentscher (1998a, 1998b) provide some building blocks for a theory of the process of rule selection, propagation, and stability in homogeneous spontaneous orders. Both Cooter (2000, p. 55) and Ellickson (1991, pp. 72) cite the importance of a "focal point" as a selection mechanism which facilitates cooperation in variable-sum bargaining scenarios by providing bargainers with an obvious equilibrium for the game. Ostrom (1990) and Cooter and Fikenscher (1998a, 1998b) suggest that dominant cultural traditions influence the specific formal rules or laws which communities choose to govern themselves. These contributions on a selection mechanism, however, do not develop this idea beyond identifying focal points as important. Similarly, Bicchieri (1997, p. 38), Ostrom (1990, p. 187), and Cooter (1994, p. 224) cite, but do not sufficiently analyze, a self-propagation process in the consolidation of spontaneously generated rules: the incentives for any given individual to follow a rule will grow to the extent that others follow that same rule (Ostrom [1990, p. 187] uses the term "cascading"). These two phenomena, focal points and synergistic effects, are crucial to explaining the rise and maintenance of spontaneous homogeneous systems.

3. Focal Points and Synergistic Effects in the Rise of Spontaneous Orders

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origin of language as a spontaneous order. On language, see also Adelstein (1996). Menger (1892) did some early work on the origin of money. Di Zerega (1988a, 1988b) has looked at democracy as spontaeously generated. Also in this vein, Witt (1988a, 1988b) has contributed analyses on the emergence economic institutions.

[4] On common law as efficient, see Posner (1992) and Rubin (1977).

[5] Exceptions to this trend are of course Ostrom's (1990) and Ellickson's (1991) excellent case studies.

In any self-regulating system, certain behavior modes will be compelling for both internal (ideological or psychological) and external (structural) reasons. In other words, the compulsion to behave in ways that are stabilizing for society is manifest internally and externally. The physical and material needs of individuals cause them to be compelled by external or structural forces. For example, people with limited incomes, given product homogeneity, have a structural incentive to seek out commodities at the lowest prices[6]. Choosing between two different brands of a homogeneous product at the same price, however, is a decision that is likely to be compelled by internal or ideological forces (e.g., you may prefer one company over another for reasons relating to a political disposition). The latter choice is neither physically nor materially compelled: the physical or material welfare of you and your family is unaffected by the choice. This choice is determined by some intrinsic preference formation among individuals.[7]

These two types of compellence are crucial to the rise, consolidation, and stability of homogeneous spontaneous orders. We can look at the rise and consolidation of such an order as a two-stage process. In the first stage, the selection stage, some rule is chosen as a coordinating mechanism for individual behavior. This rule introduces some Pareto-superior outcome for some sub-group vis-a-vis uncoordinated individual actions. As a coordination-game equilibrium, the rule offers a means by which individuals living in interdependent environments can co-exist in a manner in which their actions do not hinder each other. As a solution to a Prisoner's Dilemma game, the rule encourages cooperation, which ends up benefiting both individuals and the group as a whole.[8] In a regulated or managed system, some director or boss dictates what those rules should be. In a spontaneous order, they arise. One mechanism which can enhance the attractiveness of a rule would be the possession of intrinsic properties that make it a natural focal point for coordinating human behavior. To the extent that there are incentives to cooperate (i.e., positive-sum game), a rule that enjoys some desirable intrinsic qualities promises to be an effective coordinating device. Stage two in the formation of spontaneous orders is the propagation or consolidation stage. Once a rule becomes compelling for a number of individuals or sub-group, and it proves effective, the rule will spread to the larger group through a process of self-propagation.[9] Self-propagation results from what have been called synergistic effects (incentives to follow rules grow in proportion to the number of individuals already abiding by them).

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[6] Economists would refer to this as structural rationality. Individuals are compelled to behave rationally for structural reasons. Minimizing loses (e.g., the prices you pay for goods), and maximizing benefits (the quantity and quality of the goods you get) are the best ways to survive in environments of limited resources.

[7] Certainly, ideological compulsion can emanate from structures: it benefits me materially if I maximize my friendships. In the case of the gold standard, the inner dispositions of monetary authorities that made gold monometallism ideologically attractive emanated from monetary trends in the international political economy. Conversely, material and physical needs may be strongly influenced by inner-ideological dispositions (e.g., a frugal lifestyle is a morally superior lifestyle). The two categories are not exhaustive, and can be misleading, but they sufficiently capture two important kinds of compulsion manifest in the formation of individual decisions. They are influential in both stages of spontaneous order: selection and propagation.

[8] This analysis pertains to variable-sum games, as it is only in such games that Pareto-superior outcomes are attainable, and hence encourage individuals to remain in such equilibria. Such would not be the case in zero-sum (or purely conflictual) games. Most social interactions, however, are of the former, so this analysis is relevant to the study of most social systems.

[9] The theory remains faithful to Ostrom (1990) and Bicchieri (1997) who see norm propagation as an evolutionary process which proceeds from smaller to larger groups.

3.1 Stage One: Focal Points In Spontaneous Orders

The concept of focal points is taken from Schelling (1981). Focal points are phenomena which are ideologically compelling: they attract attention for various intrinsic qualities. Schelling discusses the value of focal points in the context of solving coordination games in tacit environments (i.e., where players cannot communicate). When focal points exist, games of tacit coordination are more likely to end up in socially desirable equilibria. A common example of such a game is two people being accidentally separated, and must once again meet. If a focal point exists (e.g., some unique geographic feature such as a town square), it is more likely that they will once again meet. But focal points also facilitate socially-desirable equilibria in other variable-sum games, such as Prisoner's Dilemmas, by providing an obvious solution to the state of nature problem which inheres in such games (i.e., a way for all individuals to avoid exploitation). Focal points have several compelling characteristics which affect how they influence human action. First, they are generally grounded in human psychology. Dominant images in human psychology render certain behavior modes compelling when individuals are seeking ways to coordinate behavior. Ellickson's (1991) study of rules and laws regulating property rights in Shasta County shows that the allocation of liability and burden sharing schemes invoked to solve problems of trespassing converged on compelling tenets of fairness: responsibility was distributed in proportion to individuals' potential for doing damage (e.g., people with the most cattle—which proved to be the trespassers—undertook most of the burden in building fences and paying compensation). In cases where proportions were equal or unclear, responsibility was grounded in other compelling modes of justice like "50-50" or "live and let live" (i.e., allow transgressions to balance over time) solutions.

Second, while some focal points are compelling across groups (nations, civilizations), such as the proportionality norm in compensation schemes, it is often the case that they are contingent upon the social-psychology specific groups in which they exist. This is because they are often grounded in culture. Ostrom's (1990) study of the allocation of property rights shows that allocation mechanisms are quite sensitive to dominant cultural tenets. The Japanese granted land to family units (because of Asia's more communal culture), while in Switzerland land was allocated to individuals and inherited based on primogeniture (a manifestation of Europe's greater veneration of individualism). Similarly, Cooter and Fikentscher (1998a, 1998b) show how native American tribal customary law represented the foundation around which modern tribal common law crystallized. This contingency dictates a third trait: focal points are dynamic rather than static. But because they are often grounded in culture, they change (like the cultures they are embedded in) slowly . Both Ostrom (1990) and Bicchieri (1997) stress that solutions to dominant social problems are endogenous, and therefore change according to the new relations or dominant images that emerge within these groups. An important implication of this is that what may be a focal point today, need not be one in the future. And it is an interesting characteristic of actual codified or formal law that with the passage of time, actual statutes show a grounding in principles or tenets which are no longer operational in society at large. Hence, formal rules are path dependent: codified around some existing focal points, and persist when focal points change. [10]

Fourth, focal points need not be unique: several can simultaneously exist as specific solutions to strategic problems in groups. While psychological compellence will influence the selection of one focal point over another, it will also be the case that external conditions will be influential in the selection as well (i.e., there is interdependence between internal and external factors affecting selection). This means that external forces may sometimes select a focal point with lesser psychological compellence. In Ellickson's (1991) study, the more compelling "proportionality" criterion for assessing contributions to fence building was vitiated (replaced by

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[10] **See especially Cooter and Fikentscher's (1998a, 1998b) and Posner (1992) .**

equal burden sharing) because information about the relative size of herds was not available. Also, according to Gallarotti (1995), nations found it difficult to formally adopt the ideologically preferred monetary standard (gold only-they also stayed with silver) before the later-19th century because sufficient amounts of gold were not yet available. Finally, focal points are neither a necessary nor sufficient condition for rule formation.[11] The literature on spontaneous order demonstrates that solutions to social problems need not crystallize around dominant psychological images within groups. On the other hand, some dominant images fail to make an impact on necessary solutions. Cooter and Fikentscher's (1998a, 1998b) analysis shows that actual tribal common law, while it is grounded in customary law, evolves into institutions that cannot be explained by the original customs alone. However, it is the case that most all of the actual spontaneous solutions that arose, according to the case-studies on spontaneous order, have had at least some grounding in prior cultural or parochial convictions (i.e., they rarely emerged from thin air).

Strategically, the importance of focal points for the rise of a spontaneous order emanates from the fact that they solve three fundamental problems which hinder cooperation in variable-sum games: 1) information costs, 2) transaction costs of negotiation, and 3) uncertainty.[12] Mutually advantageous agreements are made difficult to the extent that individuals cannot obtain information on what others are doing, to the extent that they cannot effectively communicate with others, and finally to the extent that they are uncertain about whether others will abide by these agreements. Since a spontaneous system is in effect a tacit agreement among individuals, these problems are all the more salient. Focal points diminish these obstacles in a tacit environment. First, the existence of a focal solution to a variable-sum game makes the behavior of others that much more predictable. This is the case because in variable-sum games (i.e., where there are Pareto-superior possibilities), individuals have an incentive to cooperate to the extent that others cooperate. Hence, an obvious equilibrium point that promotes mutual advantage will make behavior that much more predictable. This lessens the need to obtain information about the behavior of others, and lessens the need to actually negotiate (or even communicate for that matter) with others. The compelling equlibrium also lessens uncertainty about rule-violation as movement from this resting point would effectively eliminate individual and social gains obtained from initial cooperation. This serves as a form of insurance against being the victim of the sucker's payoff.[13] There is no mechanism in such tacit environments as effective as a focal point for eliminating these roadblocks to cooperation.

Hence, focal points represent the most important selection mechanism for coordinating behavior in the emergence of spontaneous regimes. In stage one, the formation stage, a rule arises from a dominant psychological conviction or compelling cultural image to solve some prevalent problem. The second stage in the rise of spontaneous order to be considered is the propagation stage.

3.2 Stage Two: Synergistic Effects In Spontaneous Orders

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[11] Hence the goal of this theory is not so ambitious as to lay claim to a unique cause of spontaneous regime formation. Focal points merely represent a mechanism that (both theoretically and empirically) promises to have an important influence on spontaneous regime formation, hence should be studied as an important contributor to spontaneous order. The case study presented herein testifies to this importance.

[12] Ostrom (1990) stresses the importance of information and uncertainty, while Ellickson (1991) stresses the importance of transaction costs in solving such variable-sum games.

[13] The incentive to exploit the cooperation of others in a Prisoner's Dilemma game is diminished when the game, as is the case in most real-life situations, is iterated.

Once a rule is selected by a group, how does it spread to an entire population? It is likely that propagation or spreading of this rule will be incremental (from smaller to larger groups) rather than simultaneous. This incremental propagation process is consistent with Ostrom (1990) and Bicchieri (1997). There is not one simple propagation process, but several potential processes that could arise in any given situation. Empirically, it is common to see some managed (not spontaneous) propagation process where agents for society exist. In the area of law, customs of justice become codified; in language, new words are given literal sanction; and in money, new media of exchange are granted legal tender under the law.[14] At a less institutional level, agents may disseminate information to their socieities that a rule has become prevalent. At a more spontaneous level, a process of self-propagation can be compelling as an effective means of spreading a rule. This process can be considered under the name synergisitic effects.[15] Synergistic effects explain how a rule can spread from a smaller to larger population without formal management.[16]

Haltiwanger and Waldman (1985) distinguish between two processes which determine the structure of action in economic systems: crowding effects and synergistic effects. Let us assume two decision rules or strategies of action: A and B. Strategy A experiences crowding effects when the incentives for actors to engage in Strategy B grow as actors increasingly engage in A. An example would be two highways during rush hour. The incentives for using one of the highways will grow in proportion to the number of drivers using the other. When one is crowded, drivers will increasingly divert to the other. Conversely, synergistic effects dictate that the more actors engage in B, for instance, the greater is the incentive for other actors to engage in B, and not in A. An example of synergistic effects would be the use of computer hardware and software. If one kind of hardware comes to dominate the market (i.e., others losing ground), the greater will be the incentive for individuals to buy that brand (and not other brands) because software manufacturers will increasingly divert production toward compatible products. With software, as a particular word processing software (such as Microsoft Word) becomes popular, people will find it costly to use others (e.g., it will be harder to exchange documents electronically with others because of incompatibilities).

Rules that solve strategic problems in interdependent groups (i.e., solutions to variable-sum games) are strong candidates for self-propagation through a synergistic process. Propagation is self-reinforcing as the incentives for any given individual to abide by some selected rule rises in proportion to the number of people already abiding by it: hence a process of positive feedback exists. This process is strongest in a pure coordination game. Propagation, however, is not completely independent of stage one as the strength of focal points impacts on the strength of the spreading process. Since the propagation process is also sensitive to information costs, transaction costs, and uncertainty; anything which diminishes such problems in stage two will surely enhance the spreading of rules. Hence, a very strong focal point will exhibit a more robust propagation because it makes individuals more certain about the actions of others (i.e, a weaker focal point would require that people gain greater information in trying to predict what others will do). This is indeed a case of nothing succeeds like success. Herein probably lies the explanation of why

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[14] See Adelstein (1996), Menger (1892), and Posner (1992).

[15] Hence, the analysis of spontaneous order considered in this paper analyzes only purely spontaneous processes in the selection and propagation of rules. It is acknowledged however that in reality it is generally the case that all of the processes cited herein (both spontaneosu and non-spontaneous) come into play at both stages.

[16] The work on the evolution of institutions that sees propagation as incremental across groups (Ostrom [1990] and Bicchieri [1997]) does not adequately account for the precise process by which the propagation takes place.

emergent rules are codified (e.g., laws are formalized): while the selection process can generate effective rules in smaller groups, both the dynamic nature of focal points and the large number of individuals in most societies make a spontaneous propagation process somewhat uncertain and possibly unstable.[17]

The process of propagation cannot be linear because the positive feedback dynamic of synergistic effects is not linear. The self-reinforcement process will become especially strong once some critical mass of individuals within the population select the rule. From this take-off stage propagation should be rapid according to an exponential growth function. Much less can be said systematically about when this critical or take-off phase will occur as it will be dependent on the specific state of information dissemination and stochastic external factors in each population.

3.3 Stability in Spontaneous Orders

Once a rule is propagated, what determines its longevity? As with the selection and propagation process, longevity is dependent on both internal factors (the strength of the focal point) as well as external (structural) factors, and can of course be influenced by non-spontaneous processes. Codifying rules gives them stability even in the face of changing ideologies and structural conditions. To the extent that rule creation and change maintain spontaneous elements (i.e., rules are allowed to change stochastically or through re-codification), there are several factors that are influential. If the psychological compellence of a rule remains strong, so too does the rule remain a preferred solution to strategic problems. Sometimes this internal attraction maintains rules that have become inferior solutions to strategic problems. Maintaining gold standards in the interwar period, according to Eichengreen (1992), proved economically disastrous to many nations (kept their economies deflated in depression). An ideological commitment to gold maintained a rule that became archaic in the face of changing economic structures.

On the external side, the pace at which conditions change affects the longevity of certain rules. Ostrom (1990) saw great stability in rules regulating common resources in the communities she analyzed because conditions were fairly static over time (property in proportion to population changed little). On the other hand, native American common law, according to Cooter and Fikentscher (1998a, 1998b), evolved away from customary law on issues where new technologies and ways of life made century-old customs no longer viable means of adjudicating competing claims. Hence, stable conditions may make even weakly compelling focal points stable, while unstable conditions may render strongly compelling focal points unstable.
One especially crucial external factor is the existence of crisis. Crises are most often at the root of rule change: it is only in such conditions that people questions the rules that govern their interactions. To the extent that such conditions are few, so too will rules have greater lasting power. Frequent crises, on the other hand, can make rules quite unstable.

On the whole, rules should last to the extent they continue to be viable solutions to problems of cooperation. To this purpose, they need to continue to solve problems (mentioned above) which prevent cooperation from arising in the first place: problems involving information, transaction costs, and uncertainty. Both the strength of focal points and developments in external conditions will be important in determining whether this happens or not.

4. Spontaneous Order in the International Monetary System Before World War I

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[17] Scholars who have analyzed the efficiency of legal institutions are all too aware of this problem. See Posner (1992).

One might think discussions of spontaneously-ordered international economic systems to be like discussions of unicorns: things that are inconsistent with real-world observations. The post-war (WW II) period has seen large-scale attempts to manage international economic relations, i.e., the multilateral initiatives of Bretton Woods and the G-7. Many would acknowledge that international economic relations were less centralized before World War I, but even then it is commonplace to talk about Great Britain's hegemony (i.e., stabilizing management) of the 19th and early 20th centuries[18]. Monetary relations, as a sub-system of international economic relations, are perceived in a similar light. Visions of the IMF (supported by the U.S. and G-7) distributing resources and setting codes of conduct in the post-war period are most compelling when thinking about monetary order in recent history. Furthermore, references to the so-called liberal age of the 19th and early 20th centuries have traditionally reflected historiographic interpretations that impute very strong managerial functions to either the British state or the Bank of England. Many, in fact, would paraphrase Bagehot's famous statement to read: international money does not manage itself. Careful historical studies, however, have called into question the exact nature of the stabilizing functions of both the British state and the Bank of England in this period[19]. They see the orderly monetary relations during the period more as the result of human action, but not the creation of any human design.

The international monetary system which economic historians have heretofore referred to as the classical gold standard represented a constellation of monetary practices that prevailed during the latter-half of the 19th and early 20th centuries, principally among advanced industrial nations[20]. At best it was a global sub-system, one whose collective identity was essentially the sum of its parts. The system formed as an increasing number of nations came to adopt a common set on monetary practices founded on gold monometallism (money and exchange rates organized around some par value of gold, and freedom to convert and transport gold). Nations came to practice variants of this standard, British orthodoxy being closest to a pure form of gold monometallism.

Convergence of national monetary policies resulted in the formation of an international regime, in this case what Oran Young would call a spontaneous regime[21]. At the national level, there was nothing spontaneous about monetary policy. Officials had clear intentions and goals with respect to macroeconomic performance, and policy was not some haphazard resultant of complex interaction[22]. These individual national decisions, however, created something at the international level (the international gold standard) that was spontaneous in the Hayekian sense: it was the result of action but not intention. Nations did not exhibit an acknowledgement that as a group they comprised a well-defined monetary community, like the one that emerged after World War II for example. It is not that nations were unaware of each other's policies and even their monetary interdependence, but that domestic monetary policy was dictated by domestic imperatives rather than any considerations connected with the building of something international (e.g., such as an

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[18] See. for example, Kindleberger (1973).
[19]See Gallarotti (1995); Viner (1945); and Yeager (1976).
[20]Most econcomic historians commonly use Bloomfield's (1959) dates: 1880-1914
[21] An international regime can be defined as a set of principles, norms, rules, and decision-making procedures around which international relations are organized in a given issue-area.
[22] We should not let the term spontaneous allow us to underplay the resolve of political and monetary officials in following domestic monetary orthodoxy, sometimes at great sacrifices to their nations.

international monetary union). The monetary norms, principals, and rules that prevailed during the period tended to be of a domestic nature[23].

The constellation of relations that were derivative of these practices approximated a kind of monetary union, void of currency standardization of course. An observation made by Ludwig Bamberger, an influential German monetary official of the period, best summed it up, "...who needs an international monetary union if everyone is on gold?"[24] Moreover, monetary orthodoxy continued to be practiced in a responsible way, which kept the perception of exchange risk and convertibility risk low, thus keeping the confidence of international investors high.

That international monetary relations were orderly and stable during this period is widely agreed upon by scholars.[25] It was a period of extremely stable exchange rates (especially among the four core nations: U.S., Great Britain, France, Germany); the competitive manipulation of exchange rates (i.e., competitive devaluation) was rare; capital mobility was very high; international trade grew at record rates; abnormal capital movements were few; convertibility was rarely suspended (and not at all in the core); speculation worked in a stabilizing manner; adjustment was fast; international liquidity tended to be abundant; international financial crises were few and regionally circumscribed; and public and private confidence in financial markets remained high. Domestic conditions, although not as consistently favorable as international relations, also showed desirable trends in macroeconomic performance: long-term prices remained stable (although there were some severe downturns over shorter periods), unemployment remained relatively low, and long-term trends in economic growth and industrial production were strong[26].

5. Focal Points and Synergistic Effects Under the Gold Standard

The classical gold standard was the product of compelling forces which played out in two stages: these forces can be said to have strongly influenced political and monetary officials of the day in ways both consistent with the ideological appeal of gold (stage one), and structural compellence (stage two). The first stage represents the actual preference formation of monetary officials of the period which was driven by prevalent psychological associations that where made with political-economic success and the adoption of gold standards (gold became a monetary focal point in elite psychologies). This partially explains why officials selected gold and stayed with gold up until World War I. The selection of gold as a standard proved to be self-propagating (stage two). Economic conditions that prevailed in the latter-part of the 19th century were also responsible for the selection and the propagation of the gold standard. These latter structural factors enhanced

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[23] There were some circumscribed regional exceptions such as the Vienna, Scandinavian, and Latin monetary unions. The first two turned out to be minor international monetary actors, while the latter (although important) experienced a very short de facto life. On the history of the unions, see Nielsen (1933).

[24] Paraphrased from a statement appearing in Zucker (1975, p. 65).

[25] See especially Gallarotti (1995).

[26] These conditions manifested themselves primarily in industrially advanced nations, where gold monometallism prevailed. In the less-developed world, where monetary standards tended to be dominated by silver and paper, domestic and international trends tended to be far less favorable on a whole. Furthermore, this period was marked by some severe economic downturns within underdeveloped nations. Hence, to the extent that we can speak of a "golden age", it was a product of the developed world and was mainly present at the international level.

synergistic effects which encouraged elites to adopt and stay with gold. The stability of the gold standard was predicated on factors that were important at both stages of development.

5.1. Stage One: Gold as a Focal Point and Monetary Preference Formation

There were certainly many good economic reasons for nations, especially the four core nations (U.S., France, Germany, Britain), to make less of a commitment to gold monometallism and more of a commitment to keeping silver monetized in their economies in the latter-half of the 19th century. The U.S. had fairly powerful political interest groups that fought vehemently for the maintenance of free-silver coinage[27]. Furthermore, prices fell precipitously over the last two decades of the century, when silver was continuing to be demonetized. This price-decline gave silver interests a large amount of political ammunition in all nations. In that India practiced a silver standard, the declining silver price gave Great Britain a stake in maintaining some international monetization of silver. France, like the U.S., had traditionally practiced official bimetallism. There were politically strong interests connected with the Bank of France that favored bimetallism based on past profitability connected with bimetallic arbitrage. France also had short-term problems limping onto gold (i.e., maintaining partial monetization of silver in its transition to gold) in the face of a sharp decline in the value of silver. Germany, for this last reason, also found it desirable that silver not be completely and immediately displaced by gold in monetary standards around the world. Furthermore, as in the U.S. and France, the political strength of silver was pronounced. In other countries, as well, there were political and economic forces (i.e., structural forces) that made the perpetuation of bimetallism or silver monometallism desirable. In Italy, Austria-Hungary, and Russia, gold was adopted in spite of powerful political interest groups opposed to a gold monometallic orthodoxy. Austria-Hungary, for example, was doing very well with a paper standard and its dominant political interests found moving to fixed exchange rates undesirable.[28]

The hesitation to demonitize silver came to an abrupt halt in the developed world in the 1870s when a mass movement to gold monometallism (called the scramble for gold) was undertaken. The movement was so strong and rapid that what in fact began as a decade in which just one major nation (Britain) was formally on gold, ended with most of the developed world legally on gold (i.e., silver was effectively demonetized in the developed world).[29]

Much of the success of gold monometallism as a compelling monetary orthodoxy can be attributed to the ideological attraction of gold that emerged in the period, and an ideological aversion to silver and paper standards. Gold monetary orthodoxy became an ideological focal point among monetary authorities in the latter-part of the 19th century. Gold came to reflect a desirability, and silver and paper an undesirability, that became somewhat independent of their economic advantages and disadvantages. They reflected positive and negative attractions that, in game-theory terminology, transcended the payoffs. The metals came to reflect intrinsic qualities which related to their appropriateness as monetary standards.

There emerged a shared conviction across the developed world that gold was the appropriate standard for a politically and economically ambitious nation. It became a status symbol insofar as it was equated with economic development and military strength. Gold came to reflect sound and responsible domestic monetary management. It was acknowledged as the

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[27] See Sundquist (1983).
[28] See Schumpeter (1954, p. 770) and Kindleberger (1984, p. 130) who argue that the movement to gold in these countries was done purely for ideological reasons.
[29] On this rapid transition or "scramble" to gold, see especially Gallarotti (1993).

"symbol of sound practice and badge of honor and decency." German monetary unification was a microcosm of the growing ideological predilection toward gold. As negotiations proceeded, participants were acutely aware of a natural and sweeping deference toward gold as the only viable basis of unification. It became a matter of principle.[30] Silver and paper became negative status symbols: symbols of unsound (i.e., unstable) monetary management. This was partly a reflection of historical patterns in the relationship between monetary practices and economic development: underdeveloped nations had traditionally been dominated by silver and paper standards. Developed nations showed much greater elements of gold in their monetary systems.

The trend was compounded by a process of learning from history. Great Britain, the leading role model for gold monometallism before 1850, exhibited domestic monetary conditions that proved extremely orderly and stable. In the period from 1717, during which it began practicing a de facto gold standard, up until the latter-part of the 19th century, it had suspended convertibility only once. The less-developed world, however, which was dominated by non-gold standards, exhibited quite turbulent financial conditions throughout these years. Moreover, monetary officials of the period attributed Britain's lead in the industrial revolution to its gold standard.[31] Finally, Britain was a political superpower as its geo-strategic position (through military strength and its colonies) made it an imposing power in global affairs. To a large extent, the ideological attraction of gold emanated from a tendency to follow the winners.

The scramble for gold in the developed world began in the 1870s and was consolidated by the 1880s. Several factors explain why the transition to gold en mass did not begin before, as the ideological appeal of gold certainly encouraged such a shift before that decade. First, only by the 1870s did gold become sufficiently abundant as to be able to sustain a national monetary system alone. Monetary systems in the 19th century made far greater demands of their central monies as they had to be used as principal means of exchange. Second, as silver was already abundant in national money systems before 1870, transition to gold monometallism involved substantial transitional costs embodied in demonitizating of silver (it would take the shock of silver depreciation to compel nations to incur such costs-see next section). Third, it took the historical track record of British economic performance across the 19th century to enhance the ideological appeal of goal, hence the 1860s and 70s represented a ripe period for the realization of the link between prosperity and gold. Finally, monetary transition was enhanced by the shock of silver depreciation (discussed in next section), which was not as serious in preceding decades.

In sum, the ideology of gold, based on prevailing lessons derived from history, formed a clear preference ordering among monetary elites of the period: gold>bimetallism>silver>paper.

5.2. Stage Two: Monetary Synergism and Structural Compellence in Standards

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[30] See Zucker (1975, p. 63).
[31] See especially Gallarotti (1995, p. 145).

By the 1870s, a synergistic effect favoring gold was set in motion by this ideology of gold, and in addition it would be a set of structural conditions that further pushed these elites toward demonetizing silver and adopting gold monometallism for their nations. The ideological attraction of gold and disaffection toward silver generated a strong synergistic effect. As more nations moved away from silver toward gold, the demand for silver continued to decline, which in turn served to drive its price down further, thus increasing the incentive (synergistic effects, involved in this interaction between price and demand, made the choice of gold self-reinforcing) for those still remaining on silver to divert to gold.[32] Aside from the monetary turbulence caused by nations trying to defend the value of their silver currencies in the face of a depreciating specie base, silver nations would exhaust their reserves when trading with gold nations. Furthermore, bimetallism with fixed bimetallic ratios was impossible to maintain in the face of a growing divergence in the non-monetary values of gold and silver. In addition, there were other advantages to monetary standardization, such as less-costly access to leading capital markets[33]. The more gold standards proliferated, the greater became the synergistic compellence to move to gold.[34] Compounding these demand trends was India's (traditionally one of the world's largest silver markets) declining demand for silver. It cut its decadal silver imports by 200 million dollars from the 1860s to the 1870s, an average of 20 million a year. The impact of demand on the value of precious metals was further reinforced by supply trends. The decadal production of gold across the crucial decades 1860s and 1870s showed a slight (10%) decline (from 61 million fine ounces in the 60s to 55.7 million in the 70s). However, the decadal production of silver across these two decades showed an increase of almost 50% (from 392.2 million fine ounces in the 60s to 710.4 million in the 70s).[35]

This period exhibited political forces that compounded the synergistic effects which made gold compelling: a shift in political structures in developed nations enhanced the demand for gold.[36] In the formation of the gold standard, there were, as there always are, interdependencies between political and economic systems. During the 19th century, European nations and the U.S. experienced a shift in the structure of political power among economic interests: pro-gold interests came to increasingly displace pro-silver interests as dominant political actors. De Cecco (1974, p. 58), in fact, considers the monetary policy victory of gold over silver and paper as primarily a manifestation of the political victory of gold (low-inflation) interests over silver and paper (high-inflation) interests. This, in turn, was a reflection of the political victory of creditors, manufactured-goods importers, and industry over debtors, raw-materials exporters, and landed interests. At the most general level, it was the political victory of an urban -capitalist class (manufacturers, bankers, professionals) over agriculture (farmers, landowners, and miners). A Tory MP summed it up best

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[32] The price of silver declined from 60 9/16 pence per ounce to 52 3/4 pence per ounce, a decline of 13%, during the crucial period 1870 to 1876, when the bulk of the conversions to gold occurred. By 1895, the price had declined by more than 50%. Trends in the value of gold show quite a different pattern: gold exhibited a slightly-rising secular trend in its purchasing power across this period. See Bordo (1981, p. 10).

[33] The lure of the London capital market created ongoing pressure for nations to introduce and maintain gold elements in their monetary standards.

[34] It is clear that in the case of the gold standard both structural and ideological compellence were interconnected. Ideology made gold attractive, which in turn changed the relative demand for precious metals in a way that was detrimental to the value of silver, which in turn increased the ideological attraction of gold as a declining value of silver caused economic problems in silver nations.

[35] See Russell (1898, pps. 129,133).

[36] See Gallarotti (1995) especially.

"...[gold would give industry, finance, and urban professionals] an enormous advantage, at the expense of classes connected with land…"[37]

The origin of the classical gold standard began in the minds of monetary officials (i.e., was ideologically compelling) and became more attractive for reasons relating to economic and political payoffs (i.e., structurally compelling), such that every nation which could maintain access to large gold stocks found itself driven to a dominant monetary strategy: a gold monometallic standard.

5.3. Theoretical Implications for Selection and Propagation in Spontaneous Orders

No one had intentionally set out to create an international gold standard. Whatever efforts took place at monetary conferences to build a gold monetary union failed. As it turned out, fairly random patterns in national monetary policies proved superior to managerial efforts in building an international monetary regime. In terms of the theoretical analysis presented in sections 3.1 and 3.2, both the selection of the gold rule and its propagation demonstrated all of the prevailing characteristics of focal points and synergistic effects. Gold was psychologically compelling because prevailing ideologies and lessons from history accorded Britain's standard a special place in the minds of monetary officials, and as soon as enough gold was available to support a monometallic standard, nations experienced a heightened desire for gold. This psychological compellence was indeed contingent on economic and political (i.e., external) factors: Britain's economic and geo-strategic successes heightened the disposition toward gold. While gold was not the only desirable standard (as noted, focal points need not be unique, and nations of the period favored bimentallism to a somewhat lesser extent, as the latter allowed the circulation of gold also), a selection among competing focal points was increasingly resolved in favor of gold as external conditions compounded the ideological attraction to gold and the ideological bias against silver.

The formation stage embodied in the scramble for gold in the 1870s demonstrated the strategic efficacy of gold as a solution to problems of cooperation, in this case monetary: i.e., problems emanating from scarcity of information, transaction costs of negotiation, and uncertainty. The monetary system worked better to the extent that nations were on the same standard, especially in a period of instability in the prices of precious metals. This kept exchange rates and prices in sync, hence preventing destabilizing shifts in trade and capital flows. The strength of the ideological attraction to gold served a coordinating function which relieved monetary authorities of having to carefully monitor the policies of other nations: national commitments to gold were sufficiently strong as to fill the need for specific information regarding individual policy orientations. Nations were confident of complementary practices elsewhere, which in turn reduced the uncertainty that nations would deviate from these practices once the international gold regime was consolidated. Moreover, nations did not have to invest in costly negotiations to assure the formation and continuation of the regime. These developments were of crucial importance in relieving tensions (which are a common source of regime failure) as nations did not have to worry about being the victims of defection (e.g., other nations increasing their trade surpluses by moving to another standard). Hence, the pervasive attraction to gold provided information about strategic choices, which in turn made nations more secure in their choice of a monetary rule without having to expend excessive resources in negotiating and getting information.

In terms of the propagation process involved in the gold standard, synergistic effects were especially strong in the movement from silver to gold and were manifest in a sharply falling price of silver. In fact, both declining demand for silver and its declining price fed on each other as shifts to gold brought down the price of silver which in turn intensified the movement to demonitize silver.

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[37] Quoted in Fetter (1965, p. 128.)

This dynamic was reinforced by supply trends. These strong synergistic effects explain the speed (i.e., non-linear) of the transition, as the scramble was effectively consolidated in about 5 years. Over a somewhat longer period, these synergistic effects were reinforced by the changing balance of political power favoring stable-money groups over pro-inflation groups. The ideological attraction of gold grew under these conditions (i.e., interaction between focal points and synergistic effects) as a stable price of gold and unstable price of silver compounded the feeling that gold was the proper standard for a leading nation, status being reflected by an absence of excessive inflation.

6.1. The Stability of the Gold Standard

The orderly character of monetary relations in the developed world was generally present through the last four decades before World War 1. The focal atraction of gold and synergistic effects were as important in maintaining an international gold standard as they were to its origin. Staying with the same monetary practices and following monetary orthodoxy fundamentally kept convertibility safe, balance-of-payments close to equilibrium, and investor confidence in domestic and international systems high[38]. But the story does not end here. The gold standard proved to be a decentralized system whose stability was dependent on a greater set of forces than those that where fundamental to its origin.

Aside from the focal attraction of gold and the synergistic effects, any discussion of the stability of international monetary relations in this period has to begin with the fairly liberal foreign economic policies of the four core nations, especially Great Britain. Social systems often show a hierarchy in terms of the impact of system parts. Stability in decentralized social systems is especially dependent on the behavior of dominant actors[39]. Monetary relations during this period were disproportionately influenced by the actions of the U.S., France, Germany, and Great Britain: actions which proved stabilizing, but not intentionally so. All practiced policies conducive to high capital mobility (limited capital and exchange controls), while instituting only moderate barriers to trade[40]. The core functioned in an economic role equivalent to a heart in an organism: core nations recycled needed resources through the system. A heart recycles blood, while the core recycled capital in the form of loans and investment. The adherence to such policies was fundamentally a manifestation of a commitment to a liberal ideology. One could identify a stabilizing focal point in the psychological attraction generated by the ideas of free trade and free capital movements.

The free flow of capital served to integrate international capital markets, which in turn effected stabilizing trends in the movements of prices, interest rates, and business conditions. The stabilizing trends were strongly reinforced by selection of a common monetary standard. The integrated markets and the common standard encouraged a convergence in prices, interest rates and business cycles across developed nations[41]. This convergence was instrumental in mitigating strategic problems which could have potentially destabilized economic relations during the period. Much international disorder can be attributed to divergences in these variables (prices, interest rates, and business cycles), the disorder manifesting itself in pressure on balance of payments.

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[38] Perhaps the most adverse effect of a significant exodus from gold would have been the investment uncertainty caused. Such uncertainty would have created problems in nations' ability to maintain convertibility and adjust their balance of payments quickly and sufficiently. Moreover, uncertainty would have been a breeding ground for financial crisis.

[39] In keeping with the decentralized nature of the system, the dominant actors did not intentionally act to orchestrate stable conditions.

[40] Great Britain, of course, practiced free trade. The other three core nations generally instituted protection only in the form of moderate tariffs.

[41] See data in Triffen (1964, p. 9) and Bloomfield (1959, pp. 31-34).

FIGURE 1

Nation 1

	High Inflation	Low Inflation
High Inflation	**B,B**	**D,S**
Nation 2 **Low Inflation**	**S, D**	**B,B**

***Payoffs of Nation 2 are on the left.**
*** B>D, S>D, S?B**

To show how this works, let us assume two nations, each exhibiting certain trends in inflation, interest rates, and economic growth. Trends are divided into two possibilities: high or low. Both nations would prefer either a balance-of-payments surplus (denoted S) or perfect balance (B) to a deficit (D)[42]. There are four possible outcomes with respect to the relation between trends in each variable. Each outcome corresponds to a box, and has specific consequences for the balance-of-payments position of each nation. All things being equal, high inflation nations run up deficits against low inflation nations[43]. The northeast and southwest boxes show such an outcome. In the latter, Nation 2 (the low-inflation nation) is running up a surplus against Nation 1 (the high-inflation nation). In the former, the exact opposite occurs. When inflation rates converge, there is, ceteris paribus, a tendency toward balance. Such an outcome is represented in the northwest and southeast boxes. Hence, in terms of balance-of-payments pressures, comparative trends in inflation are more important than the specific performance in any given nation: the most stable comparative trends for the group of nations as a whole being convergent ones.[44]

The same balance-of-payments effects occur under comparative trends in the business cycle and interest rates. One can simply replace the word inflation in Figure 1 with economic growth,

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[42] It is not necessary for this argument to specify a preference ordering between balance and surplus, hence the inclusion of a question mark instead of an ordering symbol between S and B.
[43] This will occur for two reasons. First, lower relative prices will create a more favorable trade account. Second, the higher interest rates in low-inflation nations will attract greater capital than the lower interest rates in high-inflation nations.
[44] Such comparative trends in the three variables have a greater impact under fixed-exchange-rate regimes such as the gold standard, where they can't be adjusted for nominally (i.e., by changing the exchange rate). International economists see differential inflation rates across nations as a principal source of unstable monetary relations. As Emminger (1976, p. 12) notes, "in the longer run, success in reducing inflation all around will also mean reducing inflation differentials among member countries, and this is the most important precondition for more stable exchange rates."

and the same balance-of-payments effects occur. High-growth nations find their balance-of-payments surpluses redistributed toward low-growth nations because of the former's greater propensity to import. Convergent or synchronous growth rates leave them both in balance. In the case of interest rates, high-interest-rate nations usurp the surpluses of low-interest-rate nations because international investors prefer the higher yields in the capital markets of the former.

Nations, both intentionally and unintentionally, are involved in such games often. Each game possesses some of the qualities of a Prisoner's Dilemma game with respect to external balance because a nation is better off having a favorably divergent rate in one of those variables, while it prefers other nations to have unfavorably divergent rates. Examples of such a game played intentionally are competitive-interest-rate appreciation and competitive-exchange-rate devaluation. Nations try to redistribute favorable balance-of-payments positions by instituting depreciated exchange rates or higher interest rates than other nations. In the case of the classical gold standard, uncoordinated movements in these variables proved to converge into stabilizing structures. Developed nations experienced movements in growth, inflation, and interest rates that limited the redistribution of external surpluses, thus eliminating a fundamental source of international friction.

In addition to convergent macroeconomies, there existed a stabilizing process of self-fulfilling prophecy in financial markets. Under the gold standard, favorable perceptions with respect to three important stabilizing mechanisms on an international level were fundamental to the perpetuation of favorable real states in these mechanisms. Stable exchange rates, the successful maintenance of convertibility (i.e., few nations suspending gold convertibility); and fairly balanced external positions were bolstered by peoples perceptions that these variables would remain in favorable states. This was especially true about exchange rates and convertibility. It would not be an exaggeration to say that international monetary stability in this period attained some life of its own, with only the shock of global war in 1914 being strong enough to disrupt it.

International investors came to perceive the maintenance of convertibility, in keeping with the prevailing monetary orthodoxy, as sacrosanct; while exchange rates were perceived as secure[45]. Perceptions of stability in these real variables enhanced their actual stability. Confidence in exchange rates and convertibility reduced investment risk (i.e., exchange and convertibility risk), which made international investment more interest-elastic: capital movements were sensitive to very small changes in interest rates around the developed world[46]. Since higher yields were reflective of the need for capital, and capital followed the highest yields, it was assured that nations could painlessly attract the means to ward off monetary disorder (whether attracted intentionally or not). As Bagehot noted (1921, pp. 13,14), "...capital [ran] as surely and instantly where it [was] most wanted, and where there [was] most to be made of it, as water runs to find its level." This made convertibility all the easier to defend, exchange-rates all the more stable, and adjustment in external positions all the easier.

Finally, we can identify a stabilizing open-system effect with respect to the interaction between the international monetary system and the international political economy. The international political and economic systems in which monetary relations were played out, were themselves very stable. In other words, there were no major economic or political crises that could destabilize the gold standard, as money was very much dependent on external developments in the greater political economy. Large-scale military conflict during the period 1880-1913 was non-existent. Conflicts which did occur ended up being of short duration and geographically limited. These outcomes proved to be very important given the historical propensity of abnormal monetary

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[45] See Machlup (1964) and Friedman and Schwartz (1963, pp. 104,105).
[46] See especially Kindleberger (1978, pp. 138,136; 1984, pp. 242,243).

conditions to accompany war. Moreover, as Kennedy (1981) notes, political rivalries did not spill over into economic relations. This compounded the reduction of perceived investment risk, thus making capital even more interest-elastic.

With respect to the greater global economy, international economic relations, argues Haberler (1964, p. 6), also exhibited no fundamental defects. The international economic system experienced no deep-seated maladjustments in the four decades before World War I. Trade exhibited record growth, financial crises were few and geographically circumscribed, industrial growth rates were high, and labor was mobile. General economic performance during this period was not as dismal as conventional wisdom might dictate. It did remain fairly strong in the face of some unfavorable short-term trends in prices. Lewis (1978, p. 40), in fact, argues that the so-called "Great Depression" was "...long, but it was not deep." Nations showed strong long-term performances in employment, industrial and agricultural wages, industrial production, and economic growth.

Gold convertibility was ultimately suspended during the major political crisis of the early 20th century: World War I. Wartime finance vitiated any possibility of staying on a stable-money standard. But the ideological commitment to gold persisted even after the War when, in fact, conditions were changing in a way that was making gold (or any metallic rule for that matter) a far less viable rule for managing monetary systems. The re-establishment of the gold link after the War, through the 1920s and 30s, proved to be a brief and rocky experience. By the time of the Great Depression, the fear of chronic downturns in the business cycle and political changes which made the possibilities for stable-money regimes remote seriously diminished the viability of gold as a monetary rule. Even then, however, the ideological commitment to gold allowed it to linger even when maintaining convertibility compounded the Great Depression. The post-World War II years finalized the shift away from metallic standards and toward fiat (paper) standards as these changing conditions became firmly entrenched in the industrialized world.[47]

6.2. Theoretical Implications for Stability in Spontaneous Orders

The stability of the gold standard was very much dependent on the strength of focal points and the state of external conditions in the greater international political economy. The strength of the commitment to gold created a set of circumstances that allowed the gold standard to persist without any major suspensions of convertibility. First, the ideological commitment to gold (a strong focal point) served to generate a self-fulfilling prophecy with regard to convertibility: a belief in the sanctity of the gold link made investors behave in ways that preserved the link (i.e., nations in need of capital could get it because investors were confident they would not suspend convertibility). The commitment to convertibility also served to mitigate strategic problems that could have potentially destabilized the regime. Nations experienced a convergence in their macroeconomic variables because they stayed on gold, and this in turn kept nations from falling into a destabilizing Prisoner's Dilemma game where divergence in their macroeconomies generated a redistribution of wealth that could impoverish some nations. This trend in the variables was enhanced by the existence of another (certainly related) focal point: an ideological commitment to free trade and liberal policies. In this respect, the prevailing focal points of liberalism and convertibility served to enhance the endowment of information regarding strategic choices on the part of nations, eliminated the need for costly negotiation to promote cooperation, and eliminated uncertainty regarding potential defections (i.e., all of the problems that obstruct cooperation).

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[47] On the changing conditions ushered in by the 20th century and their inconsistency with the gold standard, see especially Eichengreen (1992) and Gallarotti (2000).

External conditions compounded this stability in that they remained favorable during the period. Developments in the greater international political economy remained such that gold continued to be a viable monetary rule. Furthermore, the lack of crises kept nations from ever progressing to the crucial state of questioning their fundamental commitment to the dominant monetary rule.

All of this changed with the advent of World War I. The shock of the crisis caused an immediate suspension of convertibility, but more importantly the War and ensuing Great Depression usher in new external conditions which made a gold rule (and metallic rules in general) no longer viable as a monetary standard. It is a testament to the strength of gold as a focal point that nations attempted to resuscitate it under especially unfavorable conditions (during the Great Depression). The advent of a new emphasis on economic growth and the rise of the welfare state created external conditions which rendered a strong bias against stable-money rules. With the changing conditions, the focal compellence of gold diminished. After World War II it withered, never to return.

7. Conclusions

The literature on spontaneous order has heretofore paid insufficient attention to crucial processes in the formation, consolidation, and stability of spontaneous order. The process of preference formation has been especially neglected. The foundation for a more satisfactory understanding of the formation and propagation processes involved in spontaneous order must include such cognitive phenomena as focal points. Why people choose some rules over others is often driven by images that prevail in the social-psychology of their specific groups. It is clear from the case study in this paper that the selection and propagation of rules which underlie cooperation are dependent on the existence and strength of these widely shared images. To revive an analogy mentioned above, focal points provide the "dust particle" (antecedent convictions) around which "raindrops" (rules) form. The value of focal points is not restricted to homogeneous spontaneous orders, as they are also important in diversified spontaneous orders. Adam Smith's Theory of Moral Sentiments ([1759] 1971), for example, suggests that even complex and diverse systems, such as markets, which are driven by individuality in the thinking and actions of their participants, ultimately rely on shared ethical convictions by these same participants if they are to exist and function properly.

Focal points determine the selection of rules, influence the way in which they spread, and have a fundamental impact on the stability of cooperation founded on those rules. Hence, they play a pervasive role in the evolution of spontaneous orders. This pervasiveness must, furthermore, be considered within the context of other processes which effect the evolution. This paper has analyzed synergistic effects as important phenomena that drive the propagation process and which also interact with focal points to influence the consolidation of spontaneous order.

Both focal points and synergistic effects provide potential building blocks for a more complete understanding of how cooperation arises and evolves. This paper has attempted to contribute to such an understanding, but more work needs to be done. Crucial questions for further research abound. How do focal points arise? How do they interact? How do they compete? Why do they decline? What is a critical mass for synergistic effects to take hold? How are synergistic effects affected by institutions? All such question require a more intensive analysis of the social-psychology of cooperation. Further work on cooperation in social systems will have to analyze the social-psychological dimension of group dynamics: what beliefs people hold and how they function as mechanisms for coordinating action. Trying to understand cooperation without taking social-

psychology into account would be like trying to understand the movements of a boat without considering the influence of the underlying waves.

References:

Adelstein, Richard. 1996. "Language Orders." Constitutional Political Economy 7:221-38.

Bagehot, Walter. 1921. Lombard Street: A Description of the Money Market. New York: E.P. Dutton.

Bicchieri, Cristina. 1997. "Learning to Cooperate" In Cristina Bicchieri, Richard Jeffrey, and Brian Skyrms, eds., The Dynamics of Norms, pp. 17-46. Cambridge: Cambridge University Press.

Bloomfield, Arthur. 1959. Monetary Policy Under the International Gold Standard: 1880-1914. New York: Federal Reserve Bank of New York.

Bordo, Michael. 1981. "The Classical Gold Standard: Some Lessons for Today." Federal Reserve Bank of St. Louis Review 63 (May): 2-17.

Cooter, Robert. 1994. "Structural Adjudication and the New Law Merchant: A Model of Decentralized Law." International Review of Law and Economics 14 (June): 215-31.

Cooter, Robert. 2000. The Strategic Constitution. Princeton: Princeton University Press.

Cooter, Robert and Wolfgang Fikentscher. 1998a. "Indian Common Law: The Role of Custon in American Indian Tribal Courts" (Part I). American Journal of Comparative Law 46 (Spring): 287-337.

Cooter, Robert and Wolfgang Fikentscher. 1998b. "Indian Common Law: The Role of Custon in American Indian Tribal Courts" (Part II). American Journal of Comparative Law 46 (Summer): 509-80.

De Cecco, Marcello. 1974. Money and Empire: The International Gold Standard, 1890-1914. Totowa: Rowman & Littlefield.

DiZerega, Gus. 1988a. "A Spontaneous Order Model of Democracy: Applying Hayekian Insights to Democratic Theory." Paper presented at the meeting of the Public Choice Society. San Francisco, CA, March 18-20.

DiZerega, Gus. 1988b. "Democracy and Self-Organization: The Systemic Foundation for the Democratic Peace." Department of Political Science, University of Puget Sound.

Dolan, Edwin G. 1976. The Foundations of Modern Austrian Economics. Kansas City: Sheed and Ward.

Eichengreen, Barry. 1992. Golden Fetters: The Gold Standard and the Great Depression. New York: Oxford University Press.

Ellickson, Robert. 1991. Order Without Law: How Neighbors Settle Disputes. Cambridge, Mass: Harvard University Press.

Emminger, Otmar. 1976. "Contribution" in Robert Mundell and Jacques Polak, eds., The New International Monetary System, pp. 3-24, New York: Columbia University Press.

Fetter, Frank. 1965. Development of British Monetary Orthodoxy 1797-1875. Cambridge: Harvard University Press.

Friedman, Milton and Anna Schwartz. 1963. A Monetary History of the United States. Princeton: Princeton University Press.

Gallarotti, Giulio M. 1993. "The Scramble for Gold: Monetary Regime Transformation in the 1870s" In Michael Bordo and Forrest Capie, eds., Monetary Regimes in Transition, pp. 15-67, Cambridge: Cambridge University Press.

Gallarotti, Giulio M. 1995. The Anatomy of an International Monetary Regime: The Classical Gold Standard, 1880-1914. New York: Oxford University Press.

Gallarotti, Giulio M. 2000. "The Advent of the Prosperous Society: The Rise of the Guardian State and Structural Change in the World Economy." Review of International Political Economy 7 (Spring): 1-52.

Gloria-Palermo, Sandye. 1999. The Evolution of Austrian Economics From Menger to Lachmann. London: Routledge.

Haltiwanger, John and Michael Waldman. 1985. "Rational Expectations and the Limits of Rationality: An Analysis of Heterogeneity." American Economic Review 75 (June): 326-40.

Haberler, Gottfried. 1964. "Integration and Growth of the World Economy in Historical Perspective." American Economic Review 54 (March): 1-22.

Kennedy, Paul. 1981. "Strategy Versus Finance in Twentieth-Century Great Britain." The International History Review 3 (January): 44-61.

Kindleberger, Charles. 1973. The World In Depression 1929-1939. Berkeley: University of California Press.

Kindleberger, Charles. 1978. Manias, Panics and Crashes: A History of Financial Crises. New York: Basic Books.

Kindleberger, Charles. 1984. A Financial History of Western Europe. London: George Allen & Unwin.

Kirzner, Israel, ed. 1994. Classics in Austrian Economics, Volume III: The Age of Mises and Hayek. London: Pickering.

Kirzner, Israel, 2000. The Driving Force of the Market. London: Routledge.

Lewis, David. 1969. Convention: A Philosophical Study. Cambridge: Harvard University Press.

Lewis, W.A. 1978. Growth and Fluctuations 1870-1913. London: George Allen & Unwin.

Machlup, Fritz. 1964. International Payments, Debts, and Gold. New York: Charles Scribner's Sons.

Meijer, Gerrit. 1995. New Perspectives on Austrian Economics. London: Routledge.

Menger, Karl. 1892. "On the Origin of Money." Economic Journal 2 (June): 239-55.

Ostrom, Elinor. 1990. Governing the Commons: The Evolution of Institutions for Collective Action. Cambridge: Cambridge University Press.

Nielsen, Axel. 1933. "Monetary Unions." Encyclopedia of the Social Sciences 10 (June): 595-601.

Posner, Richard. 1992. Economic Analysis of Law. 4th ed. Boston: Little, Brown.

Rubin, Paul. 1977. "Why is the Common Law Efficient?" Journal of Legal Studies 6 (January): 51-63.

Russell, Henry. 1898. International Monetary Conferences. New York: Harper & Brothers.

Sacco, Pier Luigi. 1997. "On the Dynamics of Social Norms" In Cristina Bicchieri, Richard Jeffrey, and Brian Skyrms, eds., The Dynamics of Norms, pp. 47-66. Cambridge: Cambridge University Press.

Schelling, Thomas. 1981. The Strategy of Conflict. Cambridge: Harvard University Press.

Schotter, Andrew. 1981. The Economic Theory of Social Institutions. Cambridge: Cambridge University Press.

Schumpeter, Joseph. 1954. History of Economic Analysis. London: Allen & Unwin.

Shand, Alexander. 1984. The Capitalist Alternative: An Introduction to Neo-Austrian Economics. New York: New York University Press.

Smith, Adam. 1971[1759]. The Theory of Moral Sentiments. New York: Garland.

Smith, Adam. 1983[1761]. "Considerations Concerning the First Formation of Languages." In J.C. Bryce, ed., Adam Smith: Lectures on Rhetoric and Belles Lettres, 203-29. Oxford: Clarendon.

Sundquist, James. 1983. Dynamics of the Party System: Alignment and Realignment of Political Parties in the United States. Washington: Brookings Institute.

Triffin, Robert. 1964. The Evolution of the International Monetary System: Historical Reappraisal and Future Perspectives in Princeton Studies in International Finance, No. 12. Princeton: Princeton University Press.

Ullmann-Margalit, Edna. 1977. The Emergence of Norms. Oxford: Clarendon Press.

Viner, Jacob. 1945. "Clapham on the Bank of England." Economica, 12 (May):61-68.

Witt, Ulrich. 1988a. "The Evolution of Economic Institutions as a Propagation Process." Paper presented at the meeting of the European Public Choice Society, Bergen, Norway. May 18-21.

Witt, Ulrich. 1988b. Individualistic Foundations of Evolutionary Economics. Cambridge: Cambridge University Press.

Yeager, Leland. 1976. International Monetary Relations: Theory, History, and Policy. New York: Harper & Row.

Young, Oran. 1982. "Regime Dynamics: The Rise and Fall of International Regimes." International Organization 36 (1982):277-97.

Zucker, Stanley. 1975. Ludwig Bamberger: German Liberal Politician and Social Critic. Pittsburgh: University of Pittsburgh Press.