Language Games, Entrepreneurship, and Institutions

First Draft

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Abstract: At the heart of the Austrian critique of government intervention is an appreciation for the local knowledge that intervention tends to impair or destroy. Within Austrian analysis and literature on social capital more generally, terms like rules, norms, and laws are used to described institutions that contain this knowledge. Institutions are themselves interdependent, taking on unique structure at local levels as agents must simultaneously fulfill rights and obligations of a multitude of institutions. Thus, intervention in economic relations can affect other social relations and vice versa. In what follows, we argue that the language-game, a theoretical construct advanced by Ludwig Witgenstein (1953), can serve to improve our understanding of the knowledge role of institutions and provides good fit in describing the problems that arise in the course of entrepreneurship as well as government intervention.

Keywords: Institutions, Entrepreneurship, Intervention, Socialist Calculation Debate

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> The curious task of economics is to demonstrate to men how little they really know about what they imagine they can design.
>
> F. A. Hayek, *The Fatal Conceit*

Societies are comprised of complex sets of relationships that can be defined by networks of agents and the rules that delimit their scope of interaction. Constrained by these rules, actions of agents within these networks comprise the play of multiple language games. These games contain local knowledge that is fundamental to the operation of the societies in which they operate. This knowledge is often tacit, and even when it is not, may still be private to those playing as understanding is itself dependent upon participation and is therefore costly to acquire.

Changes to elements in a game often entail a rise in uncertainty as these changes may affect play in other games. Agents within a game will be more likely to accurately predict the future states of play that will result from changes, but potential novelty of choice by other players makes prediction difficult even for these agents. Still more difficult is prediction by agents who operate outside of the games undergoing transformation. These lack not only knowledge, but also incentive to appropriately address needs and conflicts that arise during the course of transformation (Hayek 1975). These problems pervade attempts to transform society, whether such intervention involves market exchange or other forms of interaction.

Knowledge-generating Games

The problem of representing knowledge in social science was recognized by F. A. Hayek and arises repeatedly in his work. His explicit turn to a program concerning knowledge begins with his participation in the socialist-calculation debate. To that point in time, Hayek's interests were dominated by concerns of business fluctuations and capital theory (Hayek 1933; 1935a). His work in this area was responsible for bringing him to LSE as it attracted the interest of Lionell Robbins (**cite**). His displeasure with the economics of Keynes, which assumed that limitations in human rationality promoted systemic

instability (Keynes 1936), along with his participation in the socialist-calculation debate (1935b; 1935c; 1940), left an indelible mark on his work. In this period, Hayek began to focus his efforts on "the question to what extent and how his [the economic agent's] knowledge corresponds to the external facts (1937, 46)" as "there is no reason why these processes of successive changes should ever come to an end (48)." The exploration that followed led Hayek to consider not only the economic system as relying on evolutionary processes, but all social systems as such.

Hayek's evolutionary perspective was associated with emphasis on rule guided action (Hayek 1962; 1967). Social systems are themselves rule-based, where agents can be described as following internal rules of behavior. Agent action that results is constrained by external rules whose explicit and implicit penalties for violation guides the formation and execution of the agent's internal rule set. Under a system of exchange with secure property rights, violation of another's property rights may generate a response from the party violated. Behind negotiation of such a conflict exists the threat of punishment from the state, the network whose institutions claim a legitimated monopoly on the use of force (Weber 19xx). Agent participation in this game of market exchange, by their response to and influence on prices, promotes efficient coordination of resources (Hayek 1945; Wittgenstein 1953; Kripke 1982; Bloor 1997; Koppl 2002).

More generally, the order of action in a game serves also as means of communicating shared and interlocking intentionality (Boettke and Subrick 2002; Koppl et al.., 2015; Denzau and North 1994 **cite shared intentionality literature**). Games are interwoven such that play in one game often informs the practice and interpretation within another. By mutual participation in an entangled set of games, agents form social bonds (Lyotard 1984; 15) and collectively develop and respond to "a network of meanings" and "a network of significations" (Hassard 1994, 307, 320). The development of shared and interlocking mental models serves as a means to private communication among the initiated (Koppl et.

al., 2015; Koppl 2002; Denzau and North 1994). These games also serve a signaling function as commitment devices, since participation in them requires continual engagement, which is itself costly.

In light of diversity of games in society beyond the game of exchange, we argue that the case against central planning presented in the socialist calculation debate by Mises (1920) and Hayek (1935a; 1935b; 1940) is necessarily incomplete and we believe that they would agree. The market exchange game is only one type of game that occurs alongside a multitude of other games, many of which are particular to the community practicing them. Contained in the context of these interlocking games is metis, local knowledge, generated in the course of play that meets the unique needs of participants in the games (Scott 1998; Boettke, Coyne, and Leeson 2008). To those outside, games may appear to be nonexistent or, to the extent that they are noticed, indecipherable. The nihilistic drive, present in Marx and Engels (1848; Engels 1942), to replace existing institutions with their own ideals would serve to destroy the knowledge present in existing institutions, much of which is the result of *de facto* bargaining between agents over resources and power that has occurred over the life of these institutions.

The Game of Exchange

In a world where resources are scarce, plans for use over a particular resource are necessarily mutually exclusive. Scarcity forces an individual to choose one plan over another. It forces groups to participate according to one plan over another. It is no wonder that "peace on the earth and good will toward men" has remained a transcendent ideal. Scarcity implies a need for compatible plans. The process of forming such compatibility faces potential for conflict along the way. One way of alleviating such conflict is to participate in a game where rules of the game incentivize parties to deal faithfully with one another. Many such games exist in society, but one game in particular ties together all of humanity: the game of market exchange.

While any particular instantiation of the market exchange game will have unique facets, some general features are common. Agents act with limited budget constraints whose value we define in

terms of generally accepted currency or currencies. These constraints represent an agent's stock of wealth, which includes the money held by the agent and that an agent can acquire either through sale of assets or by borrowing. An agent's stock of wealth is transformed over time by flows of income which we define in terms of a generally accepted currency unit. If outflows of wealth tend to exceed inflows of wealth, the wealth stock shrinks. If outflows are exceeded by inflows, the wealth stock grows. If these rates tend toward equality, then the wealth stock remains the same.

Agents orient action around price: "that which is abandoned . . . for the attainment of the end sought (Mises 1949, 87)." Objects exchanged are exchanged for some price. Assuming that all exchanges take place in the form of currency, prices of non-money goods are denominated in terms of the unit of currency to be exchanged. Prices change in light of observed and expected changes in supply and demand for existing goods. The more greatly an agent values a good, the higher a price he is willing to pay for it. If an agent increases his valuation of a particular good, we say that he has increased his demand for the good. Supply of a good changes as the cost its production changes. If the cost of producing a particular good increases, we expect that the supply of the good has will fall.

The response of prices to existing and expected conditions allow for businesses to engage in a meticulous cost-benefit analysis that further promotes the rationality of the market system. An agent forms price expectations by predicting the influence of changes of social and physical dimension on the supply or demand for some good or goods that he or she believes is causally linked to the event (Menger 1873; Koppl and Butos 1993; Koppl 2002). If a relatively strong hurricane is expected to strike the Gulf of Mexico, agents in the market will likely expect that this will promote a temporary decrease in supply. The price of oil and its substitutes will rise. Likewise, if investors notice that asceticism has become increasingly popular among young adults, they may expect that demand for many of the goods formerly popular among this group will fall. Investors will therefore lower their valuation of these goods

and inputs used to produce them. Changes in prices lead entrepreneurs to revise plans to cohere to the changing environment.

Every acting agent acts to promote the particular set of ends to which he has attached emotional and physiological value. Language games embed knowledge into the actions of interacting actors. The game of exchange embeds knowledge of scarcity into actors whose limited budgets force them to account for this scarcity. Prices facilitate this process. Other games, which are more local in their span, take account of needs that arise during the course of repeated interaction. The job of the market entrepreneur is to manage the demands of these local games in light of the incentives of the exchange game. His success yields monetary profit.

The game of exchange is the most extensive game in society as it is potentially anonymous. As long as trust exists between two parties, whether that trust is the result of repeated interactions or a strong institutional environment that allows for relative anonymity of market actors, each can engage in exchange viewed as mutually beneficial. The hallmark of the liberal order is its institutionalization of anonymity. It allows interactions to span an order more extensive than was possible during the entirety of the history that preceded it (Mises 1949, 137-143; Horwitz 2008). Knowledge is thus transmitted through the price system within and across societies. Play in the game of market exchange in one region, say the United States, can affect play of other games in distant regions such as East Asia. In the next section, we reconsider the socialist-calculation debate in light entrepreneurship in the context of entangled language games.

Socialist Calculation Debate Reconsidered

The focal point of the socialist calculation debate is economic planning. *Who* is to make plans in society and *how* is a meta-plan to be formed? All plans inevitably promote a finite set of particular ends. Agents who value ends within the set promoted by a plan have incentive to support that plan. Can action in society conform to a meta-plan such that all individuals have their ends met? In a world with

scarce resources, the best we can ask is that a meta-plan exists as a system upon which agents can exert influence if they wish to apply themselves toward such an end and that this system tend to minimize the costs of facilitating agent ends.

Mises and Hayek argue that there is no replacement for participation in the market order. It is participation itself that allows for disparate knowledge to be integrated into the actions and plans of actors across the system. Through a process of trial and error, agents learn which actions tend to promote the growth of one's private wealth and which tend to diminish it. Throughout his work, Hayek argues that as circumstances in the market are continually changing, this process of learning and sharing knowledge is innate in agent participation:

> When we deal, however, with a situation in which a number of persons are attempting to work out their separate plans, we can no longer assume that the data are the same for all planning minds. . . we have now to deal not only with several separate sets of data of the different persons but also – and this is even more important – with a process which necessarily involves continuous changes in the data for the different individuals. As I have suggested before, the causal factor enters here in the form of the acquisition of new knowledge by the different individuals or of changes in their data brought about by the contacts between them. (Hayek 1946, 93-94)

Competition in the economic system is "a process of formation of opinion: by spreading information, it creates that unity and coherence of the economic system (106)." Agents implicitly signal the economic value of their knowledge by adjusting the prices that they are willing to pay for goods and services. Under a system of private property, agents can potentially increase their wealth, and therefore their budgets, by strategically buying, selling, and transforming resources in the service of consumer preferences.

Opposition to the position of Mises and Hayek in the socialist calculation debate sought to remove or reduce the elements of participation that drive the conversation facilitated by market pricing. Some systems sought to remove all forms of entrepreneurship (Neurath 1919), while others reformed their view such that prices would be set by planners through a process of trial and error (Lange and Taylor 1938; Lerner 1937). All systems sought to eliminate private property and, therefore, remove the

necessary elements of risk and uncertainty that are included in entrepreneurship (**fact check**). Economization that provides meaningful information to market actors is not possible absent property rights, as the acting agent does not experience opportunity cost as impinging directly upon his own utility. The link between agent preferences and the use of resources is broken. "Every step that leads away from private ownership of the means of production . . . is a step away from rational economic activity (Mises 1936, 102)."

We will not discuss the history of the socialist calculation debate here. Much has already been written on the topic (Lavoie 1985a; Kirzner 1988; Boettke 2001). Rather, we argue that the game of exchange is a game that not only spans societies, but is embedded in the practices that comprise other games particular to those societies. Attempts by planners to intervene upon society necessarily interrupts these local games and the preferences around which they orient:

> It is not surprising that practically all who have really tried to think through the problem of central planning have despaired of the possibility of solving it in a world in which every passing whim of the consumer is likely to upset completely the carefully worked-out plans. (Hayek 1935b, 158).

Supporters of economic planning in the calculation debate erred in thinking that scientific knowledge of the economy – knowledge in the form of equilibrium theory – could be used to plan economic activity. In order for prices to be meaningful, they must arise from the competitive market process. They must be generated in light of local knowledge present in metis. This knowledge is not easily accessible to an outside observer, nor necessarily explicitly definable by those who hold and practice such knowledge (Hayek 1945).

Entangled Games

To the extent that the game of market exchange existed in ancient societies, they existed as thoroughly embedded in games particular to that society (Levi-Strauss 1949). Exchange was ritualized. Regular contact with outsiders was looked upon with skepticism. Consider the rebuke from Ezekiel to Israel for her "prostitution" with neighboring political and economic powers:

> You also played the harlot with Assyrians, because you were insatiable; indeed you played the harlot with them and still were not satisfied. *Moreover you multiplied your acts of harlotry as far as the land of the trader, Chaldea* [emphasis ours]; and even then you were not satisfied. (Ezekiel 16: 28-29, NKJV)

The anti-trade bias of ancient society may reflect a closed mindset, but the danger that openness posed to the old social orders perhaps rightly demanded this regulation.

In his discussion of the development of society and knowledge within it, Don Lavoie refers to tradition as a pre-cursor to markets. Unlike modern liberal society with its freedoms and malleability, traditional society is defined by its slowness to change:

> The organizing principle of Tradition – sustained by social pressure on members of the band who break the (mostly implicit) cultural rules and occasionally revised when circumstance change – represents the basic prehistoric mechanism for the selection of methods of economic production. (Lavoie 1985b, 33)

Tradition is defined by rules of conduct that tend to change slowly. Perhaps one reason for this is that social order arises only through tremendous effort of its agents:

> One of the crucial ways in which we are different from other animals is in the length of time our offspring must be nurtured and trained. . . Humans must pass through an apprenticeship or enculturation in an intricate cultural environment involving such institutions as language, law, customs, production methods, religious ritual, and the like. (31)

This training is a form of cultural programming that both reproduces the system and prevents change from occurring at an unsustainable rate.

To define a social system in terms of norms and rules is insufficient. We do not submit solely to a rule, or even a small set of rules. Agents are embedded in elaborate complexes of rules. These interact with one another. Changes to a single rule may, in fact, reverberate through all interactions:

> The evolutionary selection of different rules of individual conduct operates through the viability of the order it will produce, and any given rules of individual conduct may prove beneficial as part of one set of such rules, or in one set of external circumstances, and harmful as part of another set of rules or in another set of external circumstances. (Hayek 1967, 280)

Different sets of rules define games present in society, many of which are being played simultaneously. Internalization of the play of these entangled games represent a significant portion of the local knowledge.

Submission to these rules limits the span of choice of individuals in the system, though this in not to say that agents do not have any choice. Games evolve. In regard to traditional societies, Lavoie notes that productive process are embedded in these slowly transforming games:

> Particular production processes are invented and occasionally passed along from generation to generation. Incremental changes are made and, where they prove successful, preserved. (33)

But he notes:

> Primitive people do not in a sense, really know what they are doing or why. The particular form their overall methods of economic survival take is never deliberately chosen as such. (32)

The games of tradition define not only forms productive activity. They also place constraints on the exercise of power. Though it may not be obvious, leadership is difficult to maintain solely via force or the threat thereof. Power to discipline and control develops within a set of games – i.e., rituals – where this power is softened and also engenders obligations on the part of the leader to serve those who submit to him (Bourdieu 1990, 122-134). Intervention may thus upset a balance of agreements embedded in social orders of economy and power.

Defining these ancient practices as comprising language games allows us to abstract from their context and lack of dynamism. Modern society contains some of these same elements, though they may not be recognized as such by those who practice them. A firm, for example, contains its own unique set of language games that, ideally, enable its functioning (Arrow 1974; Koppl and Langlois 2001; Koppl 2002). The same can be said for any bureaucracy, network of organizations, and so on. The entrepreneur acts within this milieu of games. The task of the entrepreneur as coordinator is not to impose a plan on the group or society in which he acts. Rather, he tests his plans by subjecting them to the society. In the process of realizing his plans, he must navigate the traditions of his society. If the goal

of the entrepreneur is to contribute to the health of that society, he must participate in their games being careful not to generate disruption such that it harms his efforts or the structure of the society in which he participates. The more able the entrepreneur is to integrate this local knowledge into his plans and action, the more he can facilitate this end. Entrepreneurs, thus, connect knowledge embedded in local practice to the game of market exchange. They fill structural holes, thus enabling a connection between society writ large and the community or communities in which they function (Burt 1999a; 1999b).

The language games are bound up in the notion of institutions. Often we refer to the "rules of the game" that define an institution. These may be formal or informal. Interpretation of rules necessary for institutions to function inherently brings with it uncertainty. If certain actions and outcomes within an institution are possible but not imagined or expected by those playing the game, action generated from unorthodox interpretation can usher in a period of rapid institutional change. Institutions that are robust (**and?)** contain channels for mediating difficulty that arise between disagreeing parties under such conditions.

Government Intervention and the Structure of Social Capital

Intervention interrupts old games by changing the rules of play followed by different groups of actors. This can be accomplished by a change of rules that also changes incentives. Consider the effect of the introduction of civil courts into the game of finance in Bombay:

> Before the legal reforms that introduced civil courts, the informal market was based on relationships between lenders and borrowers (farmers). Both parties invested resources in cultivating their relationship through actions that signaled trustworthiness and credibility. Individuals, acting as social entrepreneurs, invested resources in discovering social capital combinations that allowed them to lend or borrow funds. . . (Carilli, Coyne, and Leeson 2008, 214)

Without courts to enforce agreements, parties were dependent on a game where play was expected to occur between two parties into the foreseeable future. Where once power relations were softened due to reciprocity, the lowering of legal costs, though it expanded the market, disrupted the old order:

> Because lenders could now recover unpaid debts using the courts, the incentive to invest in cultivating relationships through signaling a long-term commitment with borrowers was greatly weakened. . .
>
> There was no longer a long-term relationship between borrowers and lenders and there was no guarantee that borrowers would return to lenders in future periods. As a result, when economic downturns occurred, lenders would use the full power of the courts to recover funds owed to them. This stands in stark contrast to the period preceding the legal reforms when lenders would provide extensions and additional credit to clients affected by economic downturns. (215)

The destruction of the old order by intervention of civil courts led to a temporary boom as the economic system entered a period of disequilibrium. The imposition of liberal institutions on kin-societies may do more harm than good.

Participation in the milieu of local language games requires a high level of investment on the part of participants. This high cost of interaction serves as the glue that holds together social organization.[1] These enable the formation of indigenous endogenous institutions (IEN) that, within our framework, are embodied in the practice of local language games. The case of Bombay is archetypal for interventions that do not build upon IEN institutions. The interaction of new incentives presented by a foreign introduced exogenous institution – i.e., new mode of interaction introduced by outsiders that is codified – change the payoffs of participation in old language games in which expectations have been embedded. Thus, the old set of knowledge, held collectively through practice, is made inferior as the payoff of defecting by one or both parties exceeds that of continued participation. The old social order is disrupted.

Conclusion

The task set out by this paper has been to integrate the language game framework into our understanding of government intervention. Language games serve to connect market activities with local knowledge that is embedded in practice. Thus, market intervention can distort or destroy local

[1] In the words of Auswald, "Transaction costs are the glue that hold together entrepreneurial combinations (2008, 120).

practices that are not obviously economic. Likewise, intervention upon local games can reverberate out to other forms of organization that are not obviously connected to the practice intervened upon. The language game construct provides a useful metaphor for understanding the interdependence among and between institutions and agent action. It gives theoretical form to our understanding of local knowledge, highlighting the ignorance that typically accompanies intervention by outside parties and the dangers that can arise from such interventions.

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