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5 Language, monetary exchange, and the structure of the economic universe

An Austrian–Searlean synthesis

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1 Introduction

With recent developments in psychology, behavioral economics, and even neuroeconomics, the relationship between the human mind and the economy has become a more frequent topic of research within economics. Such research can, as the fields just suggested indicate, take a number of forms. However, one fundamental philosophical issue remains how we move from the minds of distinct choosing individuals to the agreed-upon reality of the social world. How can it be that we all recognize certain social institutions and practices in the absence of explicit collective agreement on their functioning?² Phrased somewhat differently, how do those separate minds communicate to create social reality? One obvious answer is the use of language. However, language can only go so far in the creation of economic reality.

In previous work I have explored the parallels between the mind and the market through the lens of the analogies between language and monetary exchange (Horwitz 1992a, 1992b, 2004). In this chapter, I build on these previous contributions by bringing together the work on the nature of mind and society by the philosopher John Searle with Hayekian insights about spontaneous order and Misesian insights about the fundamental role of monetary exchange and calculation in the market.³ More specifically, I will argue that Searle's description of the "symbolization" role of language as providing the foundation for the reality of the social universe is quite analogous to the symbolization role played by money prices in providing the foundation for the reality of the economic universe. Searle's description of the institutional order of the social world as emerging from collective intentionality, the assignment of function, and constitutive rules can be applied quite easily to the institutional order of the market, with money prices performing the symbolization function of language. It is monetary exchange that allows for the emergence of the institutional reality of the social world of the market.

2 Searle on mind, language, and society

My title for this chapter very consciously adapts a chapter title from Searle's 1998 book *Mind, Language, and Society*. That chapter is titled "The Structure

of the Social Universe,” and explores Searle’s vision of the link between his philosophy of mind and the external world of society. Or, as he puts it there, “our main problem in this chapter is to explain how there can be an epistemically objective social reality that is partly constituted by an ontologically subjective set of attitudes” (Searle 1998: 113). That is, how can social institutions, which are often real because we think they are real, actually *be* real given that the “thinking” emerges from distinct human beings with distinct perceptions of the world? The key to the answer lies in the symbolization function of language. It is language that enables us both to “bridge minds” and to create a social reality that is distinct from the physical properties of objects. Searle begins his exploration of social and institutional reality interestingly enough with the puzzle of money, and how the physical facts about paper currency are not what endow it with the property of money; rather, it is a set of *social facts* that do so. Searle is interested in understanding how we get such “social facts.” The key part of the answer is that social facts are facts because people believe they are facts. Those green pieces of paper are money largely, though not totally, because we believe they are money. How does that come about?

The first conceptual tool needed is Searle’s distinction between “observer-independent” and “observer-dependent” or “observer-relative” features of the world (Searle 1998: 116). The former refers to those things that cannot be reduced to further intentionality. For example, the physical properties of a chair (for example its mass) are observer independent. It is true that objects have certain physical properties regardless of what we think and believe about them. What makes the physical object a “chair” is that we have come to a set of beliefs about what a chair does and that we recognize that the object at hand fulfills those functions sufficiently to qualify as a chair. As Searle notes, those beliefs themselves are observer independent, but they together create observer-dependent phenomena. The facts of the social world are observer dependent, but they are no less facts.

The other three tools necessary to understand social reality are collective intentionality, the assignment of function, and the idea of “constitutive rules” (Searle 1998: 118–24). Collective intentionality refers to the ability to say “we intend that X.” Searle argues that it is possible to take “we intend” as a “primitive,” in the sense that one can still uphold the idea that intentions must be located in the mind of individuals, but that doing so “does not require that all intentionality be expressed in the first-person singular” (Searle 1998: 120). The way Searle gets around these issues is to note that almost all forms of human cooperation are also acts of collective intentionality, for example the performance of a symphony orchestra.⁴ He also notes, importantly, that even forms of human conflict require cooperation at a higher level. Sporting events, a legal trial, or even a good argument all involve agreement on what counts as doing those things. Searle does not use this language at this point in the argument, but what he is pointing out here is that collective intentionality in all of its forms rests upon agreement over the

“rules of the game.” To collectively intend to do X, especially where X may involve conflict, requires prior agreement and ongoing cooperation as to the rules that make what is being done qualify as X. Along these lines, Searle then distinguishes between “social facts,” which refer to physical cooperation that manifests collective intentionality (for example an Amish barn-raising), and “institutional facts,” which move us beyond “sheer physical cooperation” to things such as “own[ing] property, get[ting] married, and form[ing] governments” (Searle 1998: 121).

The *assignment of function* refers to our ability to use objects as tools. Searle argues that “all functions are observer-relative They only exist relative to observers or agents who assign the function.” The assignment of function presupposes that there is a purpose at work, rather than just mere causation: “functional attribution situates the causal facts within a teleology” (Searle 1998: 122). Those purposes, or that teleology, are the creation of human actors; there are no observer-independent functions. Functions must be “attributed,” and thus must be done by humans because they presuppose a purpose. They are observer dependent; they do not exist in nature. Even, using an example of Searle’s, attributions of function to physical phenomena involve purpose: when we say the “function” of the heart is to pump blood, as opposed to just saying that it “does” pump blood, we are invoking a view that continued life is good and that death and disease are bad.

Finally, the concept of *constitutive rules* refers to the way in which some facts of the social world are only facts by virtue of a set of rules that make them possible. Some rules refer to pre-existing actions (driving on the right side of the road), but other kinds of rules *create* actions. To take Searle’s example, there can be no such thing as “playing chess” without the rules of chess; that is, what makes what people’s actions “playing chess” is that they are following the rules of chess. Alternately, just having a basketball and two hoops and running around on the court does not constitute “playing basketball.” If two teams began kicking the ball around, trying to hit the backboard support to earn points, we would not call that basketball. It is the rules that create the institutional reality. Searle formalizes this as “X counts as Y in context C” (Searle 1998: 124).

These three elements together create the institutional reality of the social world. They explain, for example, why pieces of green paper function as money and why certain verbal utterances have the effect of creating legal relationships. The power of institutional reality comes in, according to Searle, because this formalization of the constitutive rules can be iterated. The X in formulation “X counts as Y in C” may well be a Y in an earlier formulation; for example, “handing over a \$20 bill counts as making payment” and “that green piece of paper counts as a \$20 bill.” Searle uses the example of the levels of nested constitutive rules that go into the making and enforcing of a contract. One could do the same with almost any social institution.

What is of note here is the way in which we can take the fairly simple mechanism of a constitutive rule and “create a fantastically rich social structure by interlocking operations of the mechanism and complex iterations of the mechanism, piling one on top of another” (Searle 1998: 130). Social and institutional reality is the interconnecting of constitutive rules that enable the assignment of function with the end result being many forms of collective intentionality. In this conception of the social world, each element of the structure is dependent on a whole set of other constitutive rules that define the terrain for that element.

The social world that is built up this way creates what Searle calls “the Background,” which is comprised of non-intentional capacities, such as, in his example of going out to eat, “what constitutes eating, what constitutes a meal, what constitutes a restaurant” (Searle 1992: 176). I can have a desire to eat a meal at a local restaurant, and I can have sets of beliefs about what restaurants and meals are, but what *counts as* eating, a meal, or a restaurant in a given circumstance is open to interpretation, and the meaning of my desire to have that meal in any specific circumstance will depend greatly on the nature of those Background capacities.

In order to do what one was asked to do in any given situation, one must bring to it a “Background of human capacities [that] will fix different interpretations, even though the literal meaning of the expression remains constant” (Searle 1992: 179). Searle argues that the Background is not removable by progressive interrogation. That is, the list of things that are part of the Background is not finite, mostly because many of them are in the form of negative restrictions. To use another example from Searle, when one orders a steak at a restaurant one takes it for granted that it “will not be encased in concrete, or petrified” (Searle 1992: 180). One could go on indefinitely about the “nots” that are taken for granted as Background to all purposive action (what Searle calls “Intentionality”), and the particular “nots” will vary, to some degree, from person to person and, certainly, from culture to culture. The unenumerable nature of the Background is further illustrated by the point that each Background capacity can itself only be understood against a further set of Background capacities. This is not a vicious infinite regress; rather it reflects the fact that all attempts to engage in and understand purposive action rely on this sort of unarticulatable Background.

This interlocking structure of rules that constitutes society is analogous to Intentionality and the Background. The meaning of any individual element of the social structure depends upon a whole Background of other elements. This is the result of the iterative process of those constitutive rules. The complexity of the social world that results is what enables us to, in turn, gain more control over the physical world. Following the rules of payment and contract allows us to manipulate the physical world in ways that enhance our lives. More generally, the innovations that have made human life longer and better are the result of the interconnected constitutive rules of the market and science.⁵

The very final piece of Searle’s understanding of social reality is the fundamental role played by language. This role is twofold. First, all but the simplest of human thought is linguistically structured (Searle 1998: 152). We cannot have thoughts unless they are structured in language. Language is the set of “constitutive rules” of thought. Therefore, all acts of intentionality, whether collective or not, must start with language. To complicate matters further, language itself is a form of institutional reality in that what counts as “English” is an institutional fact. It is, in Searle’s terms, the imposition of a function on the physical phenomena of the noises that humans make. However, Searle argues that language is the “fundamental human institution in the sense that other institutions . . . require language, or at least language-like forms of symbolism, in a way that language does not require the other institutions for its existence” (Searle 1998: 153). More specifically, it is the capacity of language to facilitate “symbolization” that makes it so fundamental. As noted earlier, the function of institutions is not something that can be derived solely from the physical facts of the situation (such as money). The “status function” of objects and institutions must emerge from the collective intention that they have that function, and having that collective intention requires some way “to represent to themselves the fact that the object has the status function” (Searle 1998: 154). To the extent we do this by using processes of symbolization, Searle argues we are using those symbols as a linguistic device. At the bottom of the social world, then, is our linguistic-symbolization capacity. It is that capacity that separates us from the other social animals (Searle 1998: 134). Monetary exchange is the extension of that capacity to the market where there are limits to the ability of language to perform the necessary symbolization.

3 History, institutional reality, and unintended consequences

For F. A. Hayek (1989), social and economic institutions, such as markets and prices, are orderly phenomena that emerge as the unintended consequences of human action. Social institutions are the product of human action, but not human design, and we need to rely on social institutions to coordinate our behavior by serving as intersubjective nodes of communication and coordination because there are limits to human knowledge that are a consequence of the nature of the brain and the mind. And given the limits to our knowledge, we are unable to design intentionally such institutions and we must allow maximum scope possible for them to evolve from the actions of individuals, unhampered by human hubris.⁶ One way of understanding the limits to our ability to design institutions is that human social institutions, what Searle calls “institutional reality,” must emerge out of the actual historical practices of human actors and cannot be imposed *ex nihilo* by the state or any other organization. One needs to be careful with Searle’s concept of collective intentionality and continually recognize that it is at best

metaphorical and, of necessity, backward looking. It cannot be understood, as Searle sometimes seems to suggest, as meaning that a specific legal or social act is what creates the general acceptance of a practice. This is how Searle sometimes appears to understand collective intentionality. At best, it must be used metaphorically to reflect the fact that a historical process has evolved to the point where the formulation "X counts as Y" has come to common acceptance.

The problem with Searle's formulation, to a Hayekian, is that institutional reality is *not* the direct result of anyone's intentions. Rather, institutions emerge as unintended consequences of choices made by actors all along the evolutionary path of the institution in question. The circumstances that make X count as Y today are likely not the result of anyone's current, or even past, intentions. Searle's argument that the individual mind can assert the first person plural form of intentionality is certainly correct, but in a literal sense it is not necessarily the case that "we intend" for X to count as Y in context C. Again, his use of the phrase "collective intentionality" in the context of the actual evolution of institutions is, at best, metaphorical. Searle's own example of the evolution of money is a case in point.

To say that "we intend that these specific green pieces of paper count as money" under particular circumstances is a bit misleading, as the way in which those *particular* things came to count as money was not necessarily the result of anyone's explicit intention during the process. Carl Menger (1892) argued over a century ago that the emergence of the precious metals as money was an unintended consequence of self-interested exchange. No one ever need say, "I intend" or "we intend" that gold becomes money. The desire to hold more saleable goods in order to more easily engage in sequences of barter exchanges will lead actors to acquire stocks of goods that they believe others find desirable. To the extent they are correct, their attempts to stock up on those goods are imitated by others as they see the easier time the innovators have making exchanges. As they demand the good for its exchangeability rather than its direct utility, they make the good even more marketable, enhancing its exchangeability even further. This process slowly converges on a small number of goods (such as the precious metals) as being the most useful for this process of indirect exchange.

The key to seeing what a Hayekian perspective can bring to Searle is to distinguish Searlean "Intention" from Hayekian "intentions." Searle might argue that the use of some object in indirect exchange is "taking it as money," and thus Intentional in his sense. To be precise, however, that person is only taking it as a *medium of exchange*. To be *money*, the good should be a *generally accepted* medium of exchange. Part of Menger's theory is how goods go from just being "taken as a medium of exchange" to the general acceptability that characterizes genuine moneys. It is important, then, to observe that no one in this process need ever *intend* that the specific good(s) they are using as a medium of exchange become money. That gold

became *generally accepted* as a medium of exchange was an unintended consequence of other human action. The move from Intention at the level of individual action to the emergence of a social institution that may be the result of no one's intentions suggests that there is something about the interactions of Intentions that is greater than the sum of its parts. This is the Hayekian spontaneous order approach.

Searle might reply that, although this may have been true historically, what makes those green pieces of paper count as money today is the declaration by the state that they are legal tender. Hence, there is an explicit act of collective intentionality that underlies this institutional fact: "the creation of legal tender by the Treasury when it states that the currency it issues is legal tender is like a performative in that it creates the fact it describes" (Searle 1998: 115). The problem with this view is twofold. First, there are numerous historical examples, including in the evolutionary story Searle (1998) tells, of money being perfectly serviceable without the state declaring it legal tender or undertaking any sort of intentional act of defining what is or is not money. It can be an aspect of institutional reality that X is money without an explicit performative statement. The "general acceptance" part of money need not be, and has not been, the product of anyone's Intentionality. Second, where legal tender laws or other explicit statements of collective intentionality attempt to create the institutional reality of money, they cannot do so unless actors have already accepted the reality of that good serving as money.⁷ Imagine a state attempting to declare lettuce to be money, or imagine even a sizeable minority of the population doing so. In neither case will this be successful unless traders as a whole already are using lettuce as money. It is not the performative that creates the reality; rather it is the process by which that practice has been accepted that creates the institutional reality. The sorts of explicit performatives that Searle uses in his money example are neither necessary nor sufficient to create the institutional fact of money, and this claim holds true for institutional facts in general.

In some sense Searle recognizes this point implicitly in his example of the wall (Searle 1998: 124–26). Searle imagines a group of people who create a wall around the area in which they live in order both to keep themselves in and to keep intruders out. He notes that it has two of the features of institutional reality: the assignment of function and collective intentionality. But, he argues, that function is related to the physical properties of the wall; for example, it is sufficiently high that it cannot be scaled. Then Searle adds a wrinkle: suppose the wall decays, leaving only a circle of stones. Further suppose that the inhabitants continue to "treat the line of stones as if it could perform the function of a wall" (Searle 1998: 125). One simply does not cross this line of stones. Searle argues that this wrinkle is the uniquely human aspect of institutional reality, namely our ability to agree upon the status of a particular object, which in turn assigns it a function. **The physical properties of the stones do not keep the inhabitants in; rather,**

it is their collective agreement on what the stones *mean* or *symbolize* that does so. As noted earlier, our capacity to use language, or language-like processes, to engage in symbolization enables us to assign "status functions" this way.

At the center of these issues are the questions of size and longevity. We can imagine situations where a small number of people need to agree upon a social fact for a short period of time. Consider two siblings agreeing that a line on the floor of their shared bedroom will function as a wall. Explicit agreement can work here where communication is face to face and where the agreement is understood to bind only the parties making the agreement. When we think about genuine social institutions neither of these conditions holds. In large and complex human societies, there is no way to ensure that the communication emanating from the center will get to those who need to know this social fact. In addition, how will this necessarily bind those who do not get the communication? The Menger-Hayek approach offers a way around both problems through the assertion that effective social facts and institutions must emerge from actual practice, rather than being promulgated from the top or the center, in heterogeneous and complex societies.

The relevance for the current discussion is that it is not any old line of stones that can acquire the status function of a wall, but only one that actually *did* have certain physical properties at one point in time. If members of the group decided to lay another line of stones elsewhere, I submit that it would be very difficult, if not impossible, to assign those stones the status function of a wall. Our ability to engage in the symbolization process that assigns a status function is crucially dependent on history. We cannot declare any old object to be money anymore than we can, by inventing a new word, automatically make it part of a language. The symbolization that characterizes institutional reality must be part of a historical evolutionary process where those who are to make use of the symbolic representation have already *de facto* made use of the underlying non-symbolic process or object.

The implication of this perspective on Searle's argument is that institutional reality must grow from the ground up and cannot be imposed from the top down. Searle is correct that the process by which institutional reality is created allows for increased complexity through increased abstraction and symbolization. However, the process that produces this result must grow out of the day-to-day practices of the participants. Whatever anyone might want institutional reality to be, the *de facto* practices of the individuals will matter a great deal more than any *de jure* definitions.⁸ A further implication is that we are simply not smart enough to create an institutional reality of our own invention. What constitutes collective intentionality, what brings about the constitutive rules, and what assigns the function, which are all three jointly necessary to produce institutional reality, are undesigned processes of social evolution.

4 Monetary calculation and the order of the market

Many of the same processes Searle identifies in the production of institutional reality are at work in an analogous way in what we might call the production of "economic-institutional reality." To see this, we need to understand that there is a powerful analogy between the use of language and the process of monetary exchange that produces the money prices of the market. Those prices serve as tools for economic calculation by market actors. Our ability to engage in any real intentionality in the realm of the market is a function of our ability to calculate using the money prices produced by decentralized processes of exchange. Money prices are symbolic representations that acquire economic reality through a process completely analogous to Searle's description of institutional reality. They have collective intentionality, the assignment of function, and constitutive rules, and thus serve as markers of what is real within the realm of the market. As I have argued elsewhere (Horwitz 1992b), monetary exchange is both an analog to, and an extension of, our language-using capacities. Monetary exchange and the prices that it produces enable us to communicate that which cannot be put into words but is nonetheless central to economic coordination. The constellation of money prices is the Background to entrepreneurial action.

The prices that are produced by monetary exchange are central to the institutional reality studied by economics. In the Austrian tradition, the epistemic role of prices has been most clearly articulated in Hayek's work, especially in the 1930s and 1940s as part of his participation in the debate over economic calculation under socialism, itself launched by Mises's (1920) article denying that calculation was possible under planning. Mises argued there that in the absence of prices for the means of production, socialist planners would be unable to make any sort of rational decision about how to use resources. In a world where the means of production are neither perfectly substitutable nor usable for the production of only one output, choices must be made as to how inputs will be applied to outputs. Money prices are necessary to engage in such calculations, and those money prices can only emerge from monetary exchange, which itself is conditioned on the existence of markets and private property in the means of production. Hayek (1945) added that the reason market prices are able to facilitate calculation in this way is that they enable us to more effectively use each other's knowledge than would planning. The various, and decentralized, acts of exchange that comprise the marketplace are a form of communication whereby the prices that emerge through that pushing and pulling are signals about our preferences and knowledge. We do not need to know why oranges in Florida are in short supply; we need only watch the price to be led to take the "right" action given that they are indeed in short supply.

As important as this point is, in that same article Hayek makes an argument even more relevant to the issue at hand. He notes that a great deal of

“circumstance of time and place” (Hayek 1945: 80). The contextuality of knowledge matters here because context cannot be known by an external observer trying to collect that knowledge and manipulate it in the form of “data.” The meaning that a particular price has, or that a certain flow of inventory has, depends on the context in which that piece of knowledge sits. That context is lost when prices are treated as objectifiable and interchangeable pieces of data. This argument is strengthened when we recognize that a good deal of market-relevant knowledge is also tacit – things we know but cannot articulate (Polanyi 1958). We might know when is the right time to pull off the clutch when driving a standard shift car, but when we try to explain what it is that we know to someone else, we cannot articulate it. The same might be said of how we keep our balance on a bicycle. In both cases, there is no doubt that we possess knowledge, but it is not knowledge of the sort that we can convey directly to others.

Implicit in Hayek’s emphasis on “time and space,” and more explicit in the work of Lavoie (1985, 1986), is the claim that much economic knowledge is of this sort. An entrepreneur who has worked in a particular industry for many years will have acquired a great deal of experience and wisdom that she may not be able to articulate but which nonetheless accurately guides her decision-making. If asked to offer a complete and explicit explanation for her decision to buy some input today, she might not be able to do so, but might well say, like the driver or bicyclist, “I know it but I cannot describe precisely what it is that I know.” However, what it is that she does know is made available to others in the form of the prices that her decisions affect. In buying that input, she contributes to movements in the price that signal to others that the resource has become more valuable and that they need to take that into account in their own decision-making processes. By exchanging money for the input, and thus causing the money price to change, the entrepreneur has engaged in a form of communication that goes beyond language by enabling tacit knowledge to be taken into account by others. Monetary exchange is an extra-linguistic social communication process.

Searle’s three elements of institutional reality are at work in the monetary exchange process that is the foundation of the market. There is collective intentionality, with the recognition that it is in the sense that is appropriate to spontaneously ordered institutions as noted earlier. We have come to a collective understanding that markets order our economic lives and we generally agree that the institutional context of the market means that certain acts have certain meanings. There is the assignment of function in the way in which we understand prices to have a function beyond their physical properties in written or spoken form. Finally, money prices are very effectively understood as resulting from constitutive rules. There cannot be money prices absent the set of rules that define markets and monetary exchange. As we noted earlier, what makes basketball “basketball” is not the physical equipment involved but the following of the rules of the game. The same is true of money prices. One can assign numbers to goods and try to

make them into prices, but without the process of monetary exchange, and the rules that constitute it, underlying them those prices are meaningless. This is just another instance of the broader claim about the historicity of social institutions made in the previous section.

An illustration of the parallel to language can be found in the Hayek–Lange exchanges in the debate over the feasibility of economic calculation under socialism in the 1930s and 1940s.⁹ Lange’s (1936) argument for the feasibility of planning was that in order to allocate resources rationally one need not have genuine money prices. Prices were necessary, but Lange argued that price, in this context,

may mean either price in the ordinary sense, i.e., the exchange ratio of two commodities on a market, or it may have the generalized meaning of “terms on which alternatives are offered” It is only prices in the generalized sense which are indispensable to solving the problem of the allocation of resources.

(Lange 1936: 59–60)

This notion of price emerges from perfectly competitive/general equilibrium models where prices are parametric to the choices of individuals. Utility or profit maximization requires the “givenness” of prices, suggesting that Lange’s “terms” would be sufficient to solve such models. Lange misconceived the problem facing real market and planned economies by importing notions of price from the static models of economists.

In order for prices to play a role in coordinating economic action, they must emerge from actual practice, that is, from “games” played according to the constitutive rules of the market. Just because one attaches a number to an object, that does not make it a price. What a price means, in Searle’s terms, is that this number “counts as” a price in the context of monetary exchange. Lange’s “terms” or the parametric prices of economic models are not prices in the sense relevant to institutional reality because they did not emerge from those constitutive rules. Because they are not prices in the sense that we collectively understand prices, they are unable to fulfill the functions that prices are supposed to. Like the game played with basketball equipment that is not basketball, the prices in Lange’s argument might look like prices, but cannot have the meaning attached to them that prices emerging from acts of exchange do. Exchange using money enables actors to share their knowledge through the prices that emerge. Prices created outside the contextual and tacit knowledge of actors are, literally, meaningless and thus irrelevant for understanding how human economic action unfolds.

Searle’s understanding of the centrality of language can be linked to our understanding of the linguistic-like functions of money exchange. In a quote discussed earlier, Searle argues that language is the: “fundamental human institution in the sense that other institutions . . . require language, or at least language-like forms of symbolism, in a way that language does not require the other institution for its existence” (Searle 1998: 153). Monetary

exchange can be seen as a “language-like” institution in the way that Searle notes. Recall that the centrality of language was due to its ability to help us create symbols, which are necessary to attribute status functions to things where those functions are not part of their physical composition. The example of money is, again, illustrative. Language enables us to make clear that money symbolizes value in ways that can be utterly disconnected from the physical properties of the money object, or, in the case of electronic forms of money, where they have no physical properties at all. Specific words, or groups of words together, become symbols of our collective intentionality. This is what prices and groups of prices do in the market.

These prices form the foundation for the economic calculations of producers and consumers that drive the market process. It is not just that we create meaning when we buy and sell and thus affect prices; we also interpret meaning when we look at prices on the market and act based on them. Producers decide on what and how to produce based on their interpretations of the prices in the marketplace, both as they look backward via profit and loss accounting and as they look forward through budgeting. Producers, often via their accountants, are interpreters of the language of money prices and use those interpretations to allocate resources. Calculations of profit and loss can fruitfully be understood as attempts to search for meaning within the data of the marketplace. The producer wants to understand how the rest of the market has assessed her acts of production, and profit and loss accounting enables her to grasp that meaning. This is the backward-looking function of the network of prices. The forward-looking budgeting activities of producers are an attempt to navigate the uncertain future through the use of prices as social guideposts. In the same way that social facts and institutional reality serve as anchor points for our actions in the world more generally, so prices provide that guidance for producers in the market. The meaning of words such as “marriage,” “property,” or “contract” enables us to predict the actions of others and imagine the results of our own actions. In the process of entrepreneurial planning, prices serve this same function. They are foundational for any meaningful economic reality.

The complex structure of capital and vast array of consumer goods that characterize modern market economies result from extensive symbolization processes that ultimately rest on the language-like features of monetary exchange. Just as we have built up a broader institutional reality by the repeated application of Searle’s “X counts as Y in context C” formula, so has economic reality been built by repeated application of the process of monetary calculation using money prices. When entrepreneurs engage in monetary calculation they are using these prices in ways analogous to how all purposive action requires the Searlean Background.

The market is a special case of the institutional reality creation process described by Searle, and it is one that relies as much on the process of monetary exchange as “natural language” to be the foundational symbolization process. Economic processes including exchange certainly involve the use of

natural language, but natural language is not sufficient to generate the institutional reality of the market economy. It must also include the language-like features of monetary exchange and the money prices it produces. These prices become surrogates for a great deal of historical and contemporaneous knowledge possessed by market actors. Like other entities with status functions, money prices are the sediment or crystallization of knowledge from the past and present, the details of which are both inaccessible and unnecessary to serve their purpose. Just as the wall from Searle’s example evolves into a line of rocks serving the same purpose, so prices change and evolve in response to the exchange activity of individuals, leaving the current price to reflect that unknown past.

5 Conclusion

John Searle’s approach to the interrelationships among mind, language, and society offers strong parallels to the way in which Austrian economists have understood the nature of the economic universe. From an Austrian perspective, the role of monetary exchange as the necessary basis for the evolution of a rich and complex economic order is as a Searlean “language-like” way to facilitate the symbolization process necessary to produce institutional reality more generally. Searle’s conception of this process adds a richness to the Austrian view and helps to place it in the context of institutional reality more broadly. The market order is seen as a particular piece of institutional reality that is constituted by a particular set of rules, where the symbolization process takes place through monetary exchange precisely because a good deal of the knowledge “in play” cannot be captured in natural language. Monetary exchange extends the institutional reality making function of language into a new realm, which enables us to create even more complex social orders than we could do with natural language alone. Bringing together Searle’s work with that of the Austrians makes clear both the role of the market in creating a large piece of social reality, and why markets cannot be dispensed with as a result, and in doing so enhances our understanding of the evolution and function of social and economic institutions.

Notes

- 1 The author thanks the editors for helpful suggestions and comments along the way.
- 2 This is a slight reworking of Menger’s (1985 [1883]) foundational question for the methodology of the social sciences.
- 3 Boettke and Subrick (2002) also pursue an Austrian–Searlean connection, though one much more focused on the philosophy of mind.
- 4 I will return to this point later, in the context of unintended forms of social cooperation.
- 5 **That science is a social process with its own internal constitutive rules should not be lost in this discussion. Our ability to directly manipulate the physical world is the result of the institutional reality of the social process of science.**

- 6 For more on the relationships among Hayek's theory of mind and his economic theory and political philosophy, see Horwitz (2000).
- 7 This argument is normally credited to Mises (1980 [1912]) as "the regression theorem." Boettke (1996) extends this idea to cultural phenomena more generally.
- 8 DeSoto's (2000) work on the differences between de facto and de jure property rights in Latin America is illustrative of this point.
- 9 See Horwitz (1996) for a more complete elaboration of issues raised here.

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6 Putting the brakes on vehicle externalism

Two economic examples

Dan Fitzpatrick

1 Introduction

In contemporary philosophy of mind, vehicle externalism (also known as active externalism, architecturalism, or environmentalism) is, in simple terms, the claim that the structures and mechanisms that allow an individual to possess or undergo various mental states and processes are sometimes structures and mechanisms that exist beyond the head or the skin of that individual. Along with other forms of externalism, vehicle externalism stands in opposition to a long tradition of internalism, the claim that the mind (or all mental states) is contained within the skull. Clark and Chalmers (1998) and others see the roots of internalism in the philosophy of Descartes and claim that this Cartesian prejudice prevails in contemporary philosophy of mind.

Although critical of Clark and Chalmers's account of vehicle externalism, the aim of this chapter is not to oppose vehicle externalism in favor of some internalist alternative; instead, using two economic examples, I will show, among other things, that a cornerstone of Clark and Chalmers's account, namely their *parity principle*, is untenable. In line with some recent work on cognitive integration (Menary 2006a, 2006b), I will be proposing its replacement with what I call the *integration principle*, which I claim is necessary if vehicle externalism is to avoid cognitive bloat. But first I will briefly introduce Clark and Chalmers's position and outline my strategy for resolving the problems that arise from their position.

Clark and Chalmers's challenge to the internalist opposition to vehicle externalism is the *parity principle*, according to which, if the external structures that underwrite the process were inside the head, we would have no problem claiming the process to be a cognitive one (Clark and Chalmers 1998: 8; Clark 2005). Of course it would be impossible for the external structures to actually be present in the same form inside the head; the pencil and paper I use to perform a calculation, for example, is not literally implanted inside my head. Instead, what Clark and Chalmers are referring to in their use of the parity principle is a parity of function between a cognitive process that uses a part of the world outside the head and a cognitive process that occurs solely inside the head. To use the calculation example again, calculation