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Capabilities: From Spinoza to Sen and Beyond*

Part II: A Spinoza-Sen Economics Research Program

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"Part I: Spinoza's Theory of Capabilities" appeared in the last issue

The Ethics and present-day science

The psychophysical identity theory in Spinoza's *The Ethics* is particularly well adapted for the analysis of the body/mind problem in the framework of present day natural sciences. In particular, evolutionary theory finds its natural foundation in the notion of immanent causation inherent to Substance (God or Nature) - that which has itself as its own cause and is not produced by anything external. Particular entities are modifications or *modes* of the Substance, produced by one another in an infinite chain of causation. According to Henry Atlan (1998, p. 215), "[w]ith such a notion of immanent causality, Evolution can be seen as the unfolding of a dynamic system, or a process of complexification and self-organization of matter, produced as the necessary outcome of the laws of physics and chemistry. In this process, new species come into existence one after the other as effects of mutations and stabilizing conditions working as their efficient causes, whereas their particular organizations are particular instances of the whole process." The omniform complexity of the texture of matter/extension corresponds to the omniform complexity of the thought dimension of the Substance. To the chain of causes in the material domain corresponds an equivalent chain of causes under the attribute of thought.[1] It is important to remark the absence in this conception of interaction between matter and thought; both have their own, equivalent causal structures, as they are two (different) faces of the (same) coin. In his *Ethics* Spinoza writes:

> [*A*] *mental decision and a bodily appetite, or determined state, are simultaneous, or rather are one and the same thing, which we call decision, when it is regarded under and explained through the attribute of thought, and a conditioned state, when it is regarded under the attribute of extension, and deduced from the laws of motion and rest* (3.2, Note).

Or, as emphatically stated in 3.2: *Body cannot determine mind to think, neither can mind determine body to motion or rest or any state different from these, if such there be.*

However, the idea that the decisions of the mind determine the actions of the body is deeply rooted in our intuitive (unreflective) view of our actions. This is due, thinks Spinoza, to the fact that, in general, we are aware of our desires and intentions, but unaware of the causes that

motivate these desires and intentions (2.35, Note; 3.2, Note).[2] The belief is so entrenched that it is merely at the bidding of the mind that the body performs its actions, says Spinoza (3.2, Note), that only experimental proof may eventually induce us to change our minds.

Now, it seems that neuroscience can today supply the conditions for an experimental proof of immanent causation, and convincingly reject the hypothesis of mental causation of bodily action. As reported by Atlan (1998), Libet (1985) consistently found that a conscious decision to act corresponds to an electrical brain event which occurs 200 to 300 milliseconds *after* the beginning of action. This experimentally reproducible fact, consistent with the above "monist" model, falsifies the conventional idea of mind-determined bodily action. The action of the body is triggered by some neuronal unconscious stimuli. That is, a physical impulse determines a bodily movement. Accompanying that action there is a conscious observation with an understanding of the action. The conscious observation accompanies the action, but it is not its cause. The psychic decision and the neural impulse are identically equivalent, each within their own domain of existence/description.[3] This fact has of course important consequences for our understanding of *homo oeconomicus,* and for what can be accepted as meaningful explanation in economic theory.

Economic theory after *The Ethics*

The effects of the above insights on conventional economic theorising are, I think, devastating. The utility maximizing individuals of conventional theory are isolated minds commanding bodily actions. *Homo oeconomicus* is a mind with a particular preference system and a perceived resource constraint commanding a body to perform specific actions (purchases and sales) in a marketplace. This mind is conscious of its own actions, and ignorant of the causes by which it is conditioned. This idea of "rational choice" simply reflects ignorance of any cause for the agent's actions.

That is, the *homo œconomicus* model of conventional microeconomics does not specify how the preferences of the mind have been themselves determined, and even less how the mind determines the body to perform its "optimal" decisions in the market. Microeconomics is totally silent on how and where this interaction could take place. The model of man propounded by microeconomics simply eludes the problem of interaction. The man of microeconomics should more accurately be named *homunculus oeconomicus*. In cognitive science, the *homunculus* is an implausible little man inhabiting the brain and embodying an uncaused will making choices and commanding the body to execute them.[4]

The canonical model of body/mind dualism is still that of Descartes in *Traité des Passions de l'Ame* (1.50). In Descartes, the will, located in the pineal gland, receives signals and sends impulses - by means of the bodily humours (*esprits animaux*) - to other parts of the body.[5] But, as Spinoza argues (Part 5, Preface) it is not possible to have non-physical entities acting on material objects (*deus ex machina*) as an acceptable form of rational explanation. Should an interactive mechanism ever get specified, it would absorb the non-physical antecedent into the physical consequent.[6]

In *The Ethics*, individual entities are, as described in the previous section, causally interconnected in an unlimited web of modifications (*modes*) of the uncaused Substance (*causa*

sui). The ideas of the mind are causally connected to other ideas, as bodies in space are causally interrelated. Yet this does not exclude autonomy and responsibility. On the contrary, individual entities endeavor to exist according to their own individual nature (3.6):

> *Everything, in so far as it is in itself, endeavors to persist in its own being.*

For Spinoza (3.7), the actual essence of a thing is nothing else but this endeavor to persist in its own being (*conatus*). The mind endeavors to persist in its being, and is conscious of it (3.9). An implication of conatus, as formulated in the *Theologico-Political Treatise,* is that

> […] *no man's mind can possibly lie wholly at the disposition of another, for no one can willingly transfer his natural right of free reason and judgment, or be compelled to do so… All these questions fall within a man's natural right, which he cannot abdicate even with consent.* (Spinoza 1951, p. 257, quoted from Ellerman 1992, pp.144-5)

The freedom of the mind is, for Spinoza, inalienable, for it cannot renounce, even if compelled to, its own nature.[7] Conatus (a thing endeavoring to persist in its own being) belongs to the essence of human being, and this essence is common to all human beings. An important consequence is that slavery, even voluntary, is inherently invalid. The same logic, applied to the modern employment contract, makes it also inherently invalid and universal self-employment or economic democracy the only "post-socialist" alternative to present day wage-slavery.[8] Spinoza (1958, Chapter VI, par. 12) also propounds that land - the principal source of status, power and wealth in feudal society - be the public ownership of the commonwealth, and hired to its citizens. An up-to-date radical Enlightenment reform would then imply public ownership of capital, to be hired to the producers ("labour hires capital," instead of the other way round) - along with abolition of the employment contract.

Now - What would it look like, an economic science that is consistent with the ontological scheme of *The Ethics*? As I see it, in the first place *Homunculus oeconomicus* should be exorcized. The fiction of invisible homunculi with particular (arbitrary) idiosyncrasies performing their autistic optimizing calculus, and thereby shaping the economic (extended) space, should be abandoned.[9] Instead of the homunculus, we should introduce the notion of an (intersubjective) economic mental space. In my view, the most fruitful concept for representing the causal web of interconnected thoughts is the notion of *field*. Individual thoughts (perceptions, deliberations, feelings, volitions, etc.) are not arbitrary or contingent, but belong to structured sets.[10] Consumption choices, for instance, change characteristically over socioeconomic classes. They show also observable patterns over space. Being subjected to causal processes, individual preferences also show definite patterns of change over time - although accepting this obvious fact is anathema for conventional economics. Another obvious fact is that individual choices are influenced by persuasion (advertising, etc.), which so contributes to shaping the field of preferences. Collective opinion, as reflected for instance in regulating bodies and other social institutions, also shapes the economic mind-space. Similar analysis of causal chains should be applied to the subjective dimension, or economic psychology, of production and other spheres of economic activity. All these aspects should also be embedded in the characteristic mentality or spirit of the time (and place), or dominant ideology, which influences the configuration of the whole economic mind-set. Our Spinoza-Sen objective for economic and social development being not consumption or output, but enlarged human capabilities, it would also be necessary to confront the additional difficulty of tracing the effects of consumption and production activities on mental capabilities. Certain types of consumption (and production) contribute to enlarging capabilities more than others; some have

negative effects; some have only transitory effects, other more durable; etcetera.

I am afraid that, to many, the above research program would look rather quixotic. However, what as a whole and at first sight can look like an overly ambitious project, might give some interesting results already at the initial stage of description, conceptualization, formalization, and organization of data. Indeed, the task is greatly facilitated by the wealth of extant results from empirical research in different disciplines (marketing, experimental and industrial/economic psychology, etc.). However imperfect and limited, this change of perspective, from the constricted perspective of the homunculus towards the extensive causal network of the economic mind-space, would imply a decisive movement, within the discipline of economics, in the direction of what one philosopher of science called the "great transformation," in the evolution from the ego-centered image towards a unified, scientific view of human being.[11]

Let us now leave the mental dimension, and briefly refer to the "extended" dimension of our "psychoeconomic" identity, that is, the external world of observable economic relationships. With the sortilege of the homunculus gone, big chunks of masonry - or even all of it - risk falling from the baroque façade of economics. The underlying classical structures, closely related to social philosophy and ethics, will appear in all their august beauty. The parts of economic theory inhabited by the homunculi and affected of Cartesian interactionism/dualism will lose much of their enchanting power. A case in point is the Arrow-Debreu model of general equilibrium, the central piece of conventional economic theory and the archetype of interaction between atomistic, self-caused minds, and passive bodies (consumers, factor owners, firms, etc.) acting in the markets. This means also that most of microeconomics should follow the same fate, for it is today conventionally conceived as variations on different aspects - and in teaching, a piecemeal construction - of the general equilibrium model. Along with microeconomics should also go most of macroeconomics, since most of conventional macroeconomics has today abandoned the Keynesian paradigm, to become a kind of aggregated, policy-oriented - and often interest-group - microeconomics.

The view of the economy as a causally structured, directly observable system of relationships existing in time has deep roots and lively ramifications in economic theory. One of the oldest sources of this view is the *Tableau Économique* of François Quesnay (published in 1766). For Quesnay, the chief question for investigation was what causes the wealth of the nation, and how this wealth circulates between "*la classe productive*, *la classe des propriétaires & la classe stérile.*" The *Tableau* is the first sophisticated analysis of the flow of value through the economy and among social classes. This focus on value creation *and* distribution was characteristic of the classical economists, including Marx, and could be seen as the permanent characteristic of a wide strand of economics that flourishes still today. This wide current includes nowadays post- and neo- Keynesian (Kaleckian) economics, Sraffrian and neo-Ricardian economics, input-output economics, and (non-interactionist) post- and neo-Marxian economics.[12] But what from the Spinoza-Sen perspective is still lacking in all these theoretical approaches is how output and distribution relate to capabilities. These theories focus on the growth and distribution of output and incomes, but not on how they influence the growth and distribution of human capabilities. These theories describe production and distribution/exploitation in the system where "the accumulation of capital is God and the prophets." We should also analyse systems operating towards expanding human capabilities.

Notes

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1. This implies that to all forms and levels of organization of matter correspond different forms and levels of organization of thought. The psychophysical identity, says Spinoza (2.13, Note), is … *entirely general, applying not more to men than to other individual things, all of which, though in different degrees, are animated.* This type of theory has been named, in different contexts, monism, panpsychism, or hylozoism.

2. Or, in the words of a brain scientist and philosopher (Flanagan 1996, p. 56): "We typically have no accurate and ongoing personal access to proximate causal antecedents of conscious acts of thought and choice, and this can produce a 'user illusion' that unmoved volitions precede and guide acts."

3. Or, in other words (Feigl, 1967, p. 79), "… the states of direct experience which conscious human beings "live through," and those which we confidently ascribe to some of the higher animals, are identical with certain (presumably configurational) aspects of the neural processes in those organisms." Or also (ibid., p. 149): "… the configurational (Gestalt) features of immediate experience are isomorphic with certain global features of our brain processes. Hence, strange as it may sound at first, it is possible that by doing introspective-phenomenological description of immediate experience, we are in effect … doing a bit of … brain physiology." This type of insight led Bertrand Russell (1959, p. 25) to maintain that "… the brain consists of thoughts." In the intricate language of quantum mechanics, psychophysical identity is described as follows (Lockwood 1990, p. 191): "An n-dimensional phenomenal quality [mental] space is to be identified … with an n-dimensional space of observable attributes, each point of which is associated with some n-tuple of eigenvalues of the spectra corresponding to the shared eigenstates (eigenvectors) of a set of n compatible brain observables." A particular (and in my view, restrictive) version of psychophysic identity theory, popular among scientists ("physicalism"), simply affirms that "there is no mind: the mind *is* the brain" - there are no psychological facts that are incapable of being reduced to physical facts (see e.g. Humphrey 2002).

4. See e.g. Dennett (1991).

5. Descartes' *esprits animaux* became famous among economists as the unfathomable "animal spirits" of the investors in Keynes.

6. "I think we know for sure that neuroscience is not going to find any place for metaphysical freedom of the will, since that would involve neuroscientific vindication of the hypothesis that there is a faculty that initiates thought and action without itself having causal antecedents" (Flanagan 1996, p. 58).

7. See Flanagan (2002, Chapter 4) for a recent discussion of the compatibility of free human agency and moral accountability with universal causation (no Cartesian free will).

8. See Ellerman (1992). Chapter 9 of this book contains an enlightening intellectual history of this argument in the protracted struggle against slavery.

9. "The image of a decision maker that makes choices by consulting a preexisting preference order appears increasingly implausible. The alternative image is of a decision maker … who constructs preferences in the context and in the format required by a particular situation." (Kahneman, 2000, p. xvi).

10. Kurt Lewin (1936) represents a seminal exponent of this approach. Unfortunately, it does not seem to have produced as many followers as it deserves. Another, more recent, possible structuring principle is the set theoretic dialectical psychology of William Hoffman (1999). Kahneman and Tversky (2000) document a wealth of experimental research showing the implausibility of the homunculus, and pointing to the (intersubjective) rationality of causal structures/processes.

11. "What happens in this "great transformation" is the replacing of most (or all) concepts of the solipsistic (egocentric) perspective as well as the manifest [dualistic/Cartesian] image (still suffused with subjectivistic features) by a completely intersubjective account. This has been seen, but expressed far too obscurely, even by the existentialists (e.g., Martin Buber), when they speak of the shift from the "I-Thou perspective" to the "It perspective" of impersonal, objective cognition." (Feigl 1967, p. 155.)

12.Kurz and Salvadori (1995) is a concise survey of these schools. Other related schools are, for instance, the *école de la régulation*, evolutionary economics, (progressive) institutionalism, Latin American structuralism, and the SAM (social accounting matrix) approach.

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