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Abstract.

Kenneth Boulding's AEA presidential address argued that economics is a moral science. His view derived from his general systems theory thinking, his three systems view of human society, and his early contributions to evolutionary economics. Boulding's argument that economics could not be value-free should be distinguished from other well-known views of economics as a moral science, such as Gunnar Myrdal's. This paper discusses the development and nature of Boulding's thinking about economics as a moral science in the larger context of his thinking.

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“The concept of a value-free science is absurd” (Boulding, 1969, p. 4).

1. Locating Boulding’s Critique of Value-free Economics

Kenneth Boulding presented his famous “Economics As A Moral Science” paper (Boulding, 1969) that rejected the idea that economics is value-free as his Presidential Address to the American Economic Association in December 1968 at the height of the War in Viet Nam. Understanding something about Boulding’s personal history and circumstances will help us to understand what lay behind his thinking. The previous year when he had moved to University of Colorado some members of the University Board of Regents had opposed his appointment because Boulding had been involved in a arranging a teach-in against the War when he was at the University of Michigan. But Boulding said of this: “They thought I was a dangerous radical. Actually, I am a dangerous conservative” (Mott, 2000, p. F436).¹ Indeed, the next year Boulding accepted the post of faculty advisor to the campus Republican club at Colorado, and changed his voter registration to Republican – which he retained until the early 1980s when Ronald Reagan began a new arms build-up, and he then changed his registration to Democratic. So Boulding was not left-wing in his politics nor involved in the radical economics of the time. In fact he was always hostile to Marx’s theory of capitalism and its emphasis on class conflict. What he did feel strongly about was the cause of peace, having become a Quaker early in life, and having been active throughout his career in a variety of ways in the cause of peace. Moreover, he himself saw peace and conflict research as his largest area of work (Boulding, 1989), and regarded his involvement in the founding of the *Journal of Conflict Resolution* and the International Peace Research Association as important lifetime achievements.

This tells us, then, one thing about the thinking behind Boulding’s Address and famous paper and critique of economics, namely, that it did not spring from the radical, Marxist, or neo-Marxist view of the time that standard economics was essentially as an expression of capitalist ideology. Indeed, Boulding was well known in the profession for having written a fairly conventional economics text, *Economic Analysis* (1941), and he never hesitated to say that economics was a legitimate science. His complaint, rather, was that it had mistakenly come to be seen as a value-free

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¹ The biographical material in this paragraph is drawn from Mott (2000).

science when it should rather have been seen as a moral science in the tradition of Adam Smith and Alfred Marshall. Thus the conventional view in the economics profession when he gave his 1968 Address, that economics had advanced by purging values from the subject, was for him a retrograde development and a decline rather than an improvement in the scientific character of economics. Economics was consequently not only a science in his estimation, but a science which could not function properly when investigated without attention to the values that he believed inevitably operated within it. What did he mean by this? A second important clue lies in the fact that Boulding did not believe that economics was exceptional in this regard. His view, then, was also not the well known critique of the idea of a value-free economics others had recently advanced (e.g., Myrdal, 1953, 1958), namely, that economics and the social sciences in general should be contrasted with the natural sciences in virtue of involving human actors, so that they could be understood without attention to human values. Rather he believed that “no science of any kind can be divorced from ethical considerations” (Boulding, 1960, p. 2). That is, he held that all science is inescapably value-laden.

Yet even this view of science does not get us entirely to what was behind Boulding’s thinking, since he also denied that value-ladenness was even something especially characteristic of the scientific process. Rather his larger view was that science was only one dimension of human culture, and that human culture in general was always guided and sustained by values.

Science is a human learning process which arises in certain subcultures in human society and not in others, and a subculture as we seen is a group of people defined by acceptance of certain common values, that is, an ethic which permits extensive communication between them”(Ibid.).

The common value system of science is indeed distinctive in various ways from the common value systems of other human subcultures. In the sciences, high value is “placed on veracity, on curiosity, on measurement, on quantification, on careful observation and experiment, and on objectivity” without which “the epistemological process of science would not have arisen” (Ibid.), and the common values of other subcultures, such as the military, were clearly quite different. But for Boulding the main point is that all human activities are types of culture, and thus necessarily value-laden. Culture, he believed, is distinctive of human life, takes on many forms, and is always structured by values appropriate to our activities in the many different domains of life. Thus to understand Boulding’s critique of economics as a moral science and as a value-laden activity we need to understand something about his view of culture. Here, however, we find ourselves needing to look more deeply into the foundations of Boulding’s thinking in connection with his broad systems theory approach or general systems theory way of looking at the world, which represented an intellectual commitment for him equal to his commitment to peace.

2. General Systems Theory and the Impossibility of Personal Tastes

From early in his career at the University of Michigan Boulding was first active in a transdisciplinary general systems theory movement that aimed to explain the world in a holistic, non-mechanistic manner in terms of entire systems of relationships. Many

people contributed to postwar general systems theory, which is often identified with one of its pre-eminent proponents, Ludwig von Bertalanffy (cf. 1968, 1974; László, 1972). However, Boulding's involvement in the movement should not be underestimated, since Bertalanffy, Anatol Rapoport, Ralph Gerard, and Boulding together established the Society for General Systems Research in 1954 (renamed the International Society for Systems Science in 1988), and Boulding remained committed to a systems approach throughout his career. The basic conception general systems theory involves is that phenomena in all domains of life are interconnected through sets of relationships that exhibit common patterns and properties that can be observed across the different sciences. The major concern its proponents had was that the different sciences had become too narrowly focused on their separate concerns and subjects, and that greater attention to shared constructs, principles, and properties, even if abstractly represented, would make desirable communication between scientists more possible. This did not imply that all sciences should be reduced to general systems accounts; rather the view was that the different sciences retained their specific areas of investigation while they simultaneously exhibited similar systemic features. Thus general systems theorists argued for framing the specific areas of investigation in different sciences, where possible, by consideration of shared cross-science general structures in the interest of promoting development across and within the different sciences. In this sense, general systems theory was a version of the classic unity of science view that science advances through increasing unification (cf. Oppenheim and Putnam, 1958).

Boulding made such an argument in his own early contribution to the approach, "General Systems Theory: The Skeleton of Science," where he argued, for example, that "a specialist who works with the growth concept – whether the crystallographer, the virologist, the cytologist, the psychologist, the sociologist or the economist – will be more sensitive to the contributions of other fields if he is aware of the many similarities of the growth process in widely different empirical fields" (1956, p. 198). It is interesting, then, that we can see this same point in his American Economics Association Presidential Address in regard to the many subcultures that make up human society. Subcultures are always defined in terms of the sets of common values that people accept and rely on for communication within them. Though two sciences, say economics and immunology, might appear to be very different from one another, they can nonetheless be understood to be similar systems in both relying sets of shared values that structure communication of scientists in each field. Thus Boulding's point that economics is value-laden was not just that this is true of economics as it is true of other sciences; his general systems view of the world was that value-ladenness was one of the fundamental cross-science general structures that we ought to investigate to promote development within the different sciences.

We can see more of what was involved in this view if we look more closely at Boulding's early general systems thinking. Thus when it came to the question of how one should go about explaining general systems, Boulding believed that one approach proceeded by arranging particular empirical fields in a hierarchy of increasing complexity, which corresponded to the increasing complexity of the 'individuals' studied in different types of scientific research.² His own method of classification had

² The other main approach was "to look over the empirical universe and to pick out certain general *phenomena* which are found in many different disciplines, and to seek to build up general theoretical

nine hierarchical levels or categories of increasing complexity: frameworks, clockworks, thermostats, cells, plants, animals, human beings, social organizations, and transcendental systems. I do not attempt to review the rationales he employed for this particular ordering and classification, but rather try to draw out the thread he employs to explain increasing system complexity beginning with thermostats, since he repeatedly across his career tended to ground his thinking in the idea of systems that maintained some sort of balance.³ Thermostats, then, are types of systems that possess self-control mechanisms or function as self-organizing cybernetic systems; that is, they tend to work to maintain equilibrium states. After thermostats in Boulding's ordering are living versions of such systems, namely, cells which are systems open to their environment that also function as self-maintaining structures. In this respect they are characteristic of life in its most basic form. As we then move on from plants to animals in Boulding's hierarchy we move from systems with advanced self-organizing divisions of labor to systems that also use this property to achieve mobility and self-awareness. Human beings among animals in addition possess self-consciousness, which goes beyond simple self-awareness. Social organizations then use these principles to self-organize and structure collections of people by roles with channels of communication. Finally transcendental systems, despite being concerned with 'unknowables' and absolutes, also exhibit systematic self-reproducing structures and relationships.

What we see here, then, is not only a hierarchical organization of systems of increasing complexity, but a view of all systems as homeostatic in nature. That is, Boulding's general systems view was grounded in the idea that a system has an integrity and cohesiveness that derives from its self-regulating and self-organizing properties. This goes beyond the simpler holism idea that systems can be associated with observable sets of interconnected relationships in that it ascribes an active principle to such systems that ensures their continued functioning as systems *per se*. Of course by the standards of much science of his time, and especially economics, where more mechanical views of the world were central, this sort of ascription of an inherent active principle would have seemed implausible and unjustified.⁴ But Boulding and the general systems movement were in fact part of a much larger development in postwar ideas that would come to have tremendous impact on human society in subsequent decades, namely, the idea of cybernetic systems, such as emerged in the technology of computers, which, as originally conceived by such individuals as Alan Turing, Norbert Wiener, William Ross Ashby, Warren McCulloch, Margaret Mead, and John von Neumann, relied on and shared the same view of holistic systems as self-regulating and self-organizing (see Heims, 1993). Boulding and others in the general systems theory movement were well aware of this development, and saw themselves as contributing to a general philosophy to explain it. So when he gave his famous Presidential Address, he may well have believed himself a forerunner bringing general systems theory into economics.

models relevant to these phenomena" (1956, p.). Boulding adopted this approach in his later systems theory argument that there are three main systems of social organization, as discussed below.

³ See Wray (1990) on Boulding's preoccupation with balance sheets and stocks. An important aspect of the balance sheet for Boulding was that it always included a 'bottom line' of net worth (cf. Boulding, 1991, p. 10).

⁴ Though of course this is precisely what the invisible hand idea involves!

From this vantage point, then, let us further appraise Boulding's critique of economics as a value-free subject, recalling his special emphasis on culture. A main focus of this critique is the economist's standard view of taste – a view Boulding wonderfully castigated as “the Immaculate Conception of the Indifference Curve” (1969, p. 2). Thus, what is his view of this idea of a preference or a taste?

Let me first explain, then, what I mean by moral and moral science. A moral or ethical proposition, is a statement about a rank order of preference among alternatives, which is intended to apply to more than one person. A preference which applies to one person only is a taste. Statements of this kind are often called “value judgments.” If someone says, “I prefer A to B,” this is a personal value judgment, or a taste. If he says, “A is better than B,” there is an implication that he expects other people to prefer A to B also, as well as himself. A moral proposition then is a “common value” (*Ibid.*, p. 1).

Thus the standard view of a preference or a taste is as a purely personal value judgment, whereas a moral proposition which is shared by people relies on a “common value.” But Boulding rejects this simple opposition, and argues that the idea of a truly personal taste makes no sense, since

personal tastes are learned, in the matrix of a culture or a subculture in which we grow up, by very much the same kind of process by which we learn our common values. Purely personal tastes, indeed, can only survive in a culture which tolerates them, that is, which has a common value that private tastes of certain kinds should be allowed (*Ibid.*).

The illusion that tastes are purely private is thus what Boulding calls the “Immaculate Conception of the Indifference Curve.” In effect, for him all tastes were in some degree endogenous to a system of common values.

We can now see, then, in light of Boulding's general systems thinking, just why he regarded the economist's idea of purely personal (or exogenous) tastes as nonsensical. Values that arise in cultures or subcultures always depend upon common values – even where they allow space for autonomy of ‘private’ tastes – because they function as principles that enable those cultures or subcultures to self-organize and self-regulate themselves. The notion that tastes might play a role independent of the homeostatic self-maintenance of a culture was accordingly inconsistent with his understanding of how a culture functioned as a system. Cultures were not collections of elements mechanically linked to one another, but holistic structures that were self-sustaining in virtue of active integrating principles. Values and value judgments play this active role in integrating human systems. Consequently personal tastes always depend on common values. They cannot be understood as disconnected collections of phenomena; nor can an economics meant to explain the world scientifically base itself on this particular view of taste. Indeed, a scientific economics is necessarily a systems-based economics.

These are thus the foundations of Boulding's critique of economics as a value-free science. Yet his views about general systems continued to develop in the years before his Presidential Address in ways that tell us more about his thinking about economics as a moral science. Accordingly I turn to his later general systems view that all

societies are organized through a combination of three specific types of systems, the threat (or fear), exchange, and integrative (or love) systems, and then use this further thinking to re-appraise his critique of economics.

3. The Three Systems of Social Organization

Boulding's thinking is often linked to the idea of a grants economy, where a grant is a unilateral transfer. The origin of the idea, however, was Boulding's prior intuition that social organizations could be understood to be integrative systems in which conflict between people could function in a constructive way (Mott, 1992). A grant, then, is a key measure of an integrative system in virtue of its character as something quantifiable. But Boulding developed reservations about this conception when he realized that grants could be given for different reasons. As he understood it, they could be given out of love or fear, and so given the contrary nature of love and fear, it was not entirely clear just what an integrative system was. Were both motives integrating? What was the nature of an integrative system then? For a time Boulding simply enlarged his view of what an integrative system was to include not only these motives (or drives) but other ones as well. But this seems to have complicated his claim that integrative systems had a special nature, and he so later came to differentiate three main kinds of systems of social organization according to their dominant motives – the threat, exchange, and integrative systems – where the motive of fear is especially characteristic of the first and the motive of love is especially characteristic of the last, while arguing that all societies could be explained by the combination of these three broad systems.⁵

This three system differentiation came out clearly, then, in Boulding's 1969 Presidential Address in connection with his characterization of economics as a moral science.

I have elsewhere distinguished three groups of social organizers which I have called the threat system, the exchange system, and the integrative system. Economics clearly occupies the middle one of these three. It edges over towards the integrative system insofar as it has some jurisdiction over the study of the system of one-way transfers of exchangeables, which I have called the "grants economy," for a grant, or one-way transfer, is a rough measure of an integrative relationship. On the other side, economics edges toward an area between the threat system and the exchange system which might be described as the study of strategy or bargaining (1969, p. 4).

Economics, then, was not solely located in the exchange system, but interacted with both of the other two systems as well.⁶ At the same time, Boulding thought that

⁵ Thus it seems fair to say he turned to his second approach for understanding general systems, which was "to look over the empirical universe and to pick out certain general *phenomena* which are found in many different disciplines, and to seek to build up general theoretical models relevant to these phenomena" (1956, p.).

⁶ Boulding wrote before game theory and the subject of strategy and bargaining became an important part of mainstream economics, so his view that economics "edges toward an area between the threat system and the exchange system" was prescient. However, his grants economy view, associated with how economics "edges over towards the integrative system" failed to become a significant part of

defining economics as studying exchange and exchangeables was a better definition than the traditional allocation of scarce resources one in that it gave economics a relatively distinct domain of concern of its own – the allocation of scarce resources being an activity carried out in political processes as well.

But his key argument regarding the nature of economics as a moral science went back to his overall general systems view that different systems shared important commonalities with one another. Thus while economics was a relatively distinct subject matter concerned with the system of exchange, it contained within it elements from each of the other two systems, just as they contained within them elements of exchange. This comes out clearly in Boulding's critique of welfare economics and the idea of a Paretian optimum.

Many, if not most, economists accept the Paretian optimum as almost self-evident. Nevertheless, it rests on an extremely shaky foundation of ethical propositions. The more one examines it, for instance, the more clear it becomes that economists must be extraordinarily nice people even to have thought of such a thing, for it implies that there is no malevolence anywhere in the system. It implies, likewise, that there is no benevolence, the niceness of economists not quite extending as far as good will. It assumes selfishness, that is, the independence of individual preference functions, such that it makes no difference to me whether I perceive you as either better off or worse off (*Ibid.*, p. 5).

Malevolence and benevolence, of course, are alternative terms for fear and love, the motives most characteristic respectively of the threat/fear and integrative/love systems. Economists, Boulding argues, avoid recognizing the role these motives play in economic life by their narrow view of preferences as selfish, or as rather purely self-regarding. The problem, however, is that thinking in this way misrepresents the true nature of human preferences.

The plain fact is that our lives are dominated by precisely this interdependence of utility functions which the Paretian optimum denies. Selfishness, or indifference to the welfare of others, is a knife edge between benevolence on the one side and malevolence on the other. It is something that is very rare (*Ibid.*, p. 6).

It is very rare, we may add, because on Boulding's systems view economics continually edges over to the threat/fear and integrative/love systems. Economics, it follows, has been cast by contemporary economists as a value-free science precisely because they have ignored these connections the system of exchange has to these two other systems, and that the three systems combine to explain human social organization. On the one hand, he allows, this oversight is understandable, and

economists can perhaps be excused for abstracting from benevolence and malevolence, simply because their peculiar baby, which is exchange, tends to be that social organizer which lies between these two extremes, and which

mainstream economics, and where it did develop it departed little from conventional neoclassical thinking (cf. Wray, 1994, pp. 1212ff).

produces, if not selfishness, at least low levels of malevolence and benevolence (*Ibid.*).

On the other hand, Boulding argues, economists have also long had at their disposal adequate tools for explaining benevolence and malevolence in the form of the externality concept, and ought not be excused for continuing to neglect these motives.

The almost complete neglect by economists of the concepts of malevolence and benevolence cannot be explained by their inability to handle these concepts with their usual tools. There are no mathematical or conceptual difficulties involved in inter-relating utility functions, provided that we note that it is the perceptions that matter.... The familiar tools of our trade, the indifference map, the Edgeworth box, and so on, can easily be expanded to include benevolence and malevolence, and indeed with this expansion many phenomena, such as one-way transfers, cannot be explained (*Ibid.*).

Thus we see again Boulding's position is that economics is actually less scientific when it ignores moral values in economic life since it then fails to adequately explain human behavior. A moral science of economics – one that clearly recognizes the common value systems that operate throughout life – is therefore the only truly scientific economics.

Boulding goes on to build on this idea by identifying several areas of achievement in the history of economics where important ethical propositions were successfully established.

The major impact of economics on ethics, it can be argued, has come because it has developed broad, aggregative concepts of general welfare which are subject to quantification. We can see this process going right back to Adam Smith, where the idea of what we would today call per capital real income, as the principal measure of national well-being, has made a profound impact on subsequent thinking and policy (*Ibid.*, p. 7).

Other such concepts are the parity index used in terms of trade analysis and cost-benefit analysis. These broad, aggregative sorts of measures, Boulding argues, presuppose that the exchange system occupies a place in a world made up of other systems as well, and that they jointly explain social organization. So despite economists' conviction that they have freed economics from ethical reasoning, and are engaged in value-free investigation, in fact they have long practiced economics as a moral science, and are well recognized for doing so.

But this still does not quite give Boulding's full view of the role played by ethics in economics, however, since it fails to sufficiently emphasize the single most important commonality operating within and across all social systems. "All these systems are linked together dynamically through the process of human learning which is the main dynamic factor in all social systems" (*Ibid.*, p. 4). While economists, then, have contributed little to the explanation of learning, it is interesting that they have nonetheless made a contribution to the subject of learning in the form of a "description of what is learned; the preference functions which embody what is learned in regard to values, and the production functions which describe the results of

the learning of technology” (*Ibid.*). This then implies that “actual choices depend not only on preferences but on opportunities, and that under some circumstances quite small changes in either preferences or opportunities may result in large changes in actual choices made” (*Ibid.*, pp. 4-5). We enter, therefore, a further dimension of Boulding’s thinking – one in which he was quite original among economists – namely his evolutionary view of the world and in particular in the current context “what might be called the evolutionary ecology of ethical systems” (*Ibid.*, p. 5). Thus to see the last piece in Boulding’s view of economics as a moral science we turn to his evolutionary thinking.

4. Boulding’s evolutionary thinking

Boulding’s evolutionary thinking had roots in his early ideas but matured considerably after his AEA Presidential Address (Boulding 1978, 1981, 1991).⁷ At the same time his strong emphasis in the Address on learning provides an important indication of how his thinking would subsequently develop. What he would basically argue was that any system contains seeds of its own transformation or future genesis, and that this works through a learning process. Thus going back to an earlier interest in income distribution, he first argued that “land, labor, and capital are not factors of production, but factors of *distribution*” in the sense that they also function as “‘know-how’, materials, and energy” that will guide future methods of production (Mott, 2000, p. F438). As Boulding himself put it:

It is much more accurate to identify the factors of production as know-how (that is genetic information structure), energy, and materials, for, as we have seen, all processes of production involve the direction of energy by some know-how toward the selection, transportation, and transformation of the materials into the product (1981, p. 27).

This effectively meant that we need to see economies as being like single organisms in that they are more than just collections of resources that get mechanically combined in production, and they need to be understood as containing active principles that enable them to self-reproduce themselves as entire systems. Or, as his general systems thinking had earlier emphasized, economic systems are homeostatic systems that maintain a self-sustaining balance through processes of change – albeit as also part of larger evolutionary processes that include societal evolution and natural evolutionary processes.⁸

From this perspective, we accordingly ought to look at economic systems as occupying successive stages of development, with one system giving rise to the next, and with human production capacities continually increasing via cumulative learning processes that reinforce economic development across economic systems through time. This was the lesson Boulding took from his understanding of the long history of human society, a process he later summarized as follows: “There are positive

⁷ It is worth noting here the close affinity between Boulding’s subsequent evolutionary thinking and that of Nicholas Georgescu-Roegen, who gave his AEA Ely lecture in the year after Boulding’s Presidential Address (Georgescu-Roegen, 1970).

⁸ Here we see Boulding’s preference for Alfred Marshall’s biological thinking as a basis for understanding economics as a moral science.

feedback processes here: the more we know, the easier it is to know more; the more we make, the easier it is to make more; the richer we are, the easier it is to get richer” (1991, p. 14). Yet despite this apparent continuity in human history, Boulding also held a punctuated equilibrium evolutionary view of change in which improbable events and sometimes even catastrophic ones explain much of how the future replaces the past (*Ibid.*, p. 13). This then implied for him an important methodological lesson. On the assumption that learning generates information and that information by nature must be new and surprising, it follows that “exact prediction is impossible” (*Ibid.*, p. 16). This of course goes against conventional economics’ usual emphasis on prediction as the measure of good theory (Friedman, 1953), and also conflicts with its representation of the economy as highly determinate. But how, then, do we responsibly organize production and economies with an eye to the future?

The answer, it seems fair to say, is that we must rely on those systems of common values Boulding had singled out in his Presidential Address to provide us future direction. There he had indeed referred to an “evolutionary ecology of ethical systems” (1969, p. 5). “Successful ethical systems tend to create subcultures, and these subcultures tend to perpetuate and propagate the ethical systems which created them” (*Ibid.*). That is, common value systems also evolve and develop as a key form of human learning, building on the past in a cumulative way while providing interpretation of the possibilities the future creates. As such they are essential to how economies operate, and accordingly need to be central to the explanations economics provides.

Note that this argument for understanding economics as a moral science is built on but also goes significantly beyond his moral science argument based on his systems approach. There he argued that common value systems are pervasive in human systems of social organization, and that no single system, such as the exchange system, can be properly understood without attention to them. Here from his more evolutionary point of view Boulding makes a strong claim about the nature of the active principle in economic systems responsible for their holistic character. That is, it is the human propensity or capacity (he does not say which) to form ethical judgments that makes the universe of ethical values a driving and organizing force in human life. In an important sense, then, Boulding comes full circle from his early general systems view, answering a question which he had previously left largely unaddressed: what are the active principles that give human social organization its system-like quality? Among these, pre-eminently, are human values.

5. Boulding’s Particular View of Economics as a Moral Science

Boulding was unhesitating in his belief that economics is a moral science, and with his general systems approach he offered an original way of arguing that we ought to treat it as such. His view was not one formulated in terms of a theory of ideology as a value-based superstructural accompaniment of forms of production. It was also not a semantical or conceptual approach – a value ladenness type of view – that claims that science at the level of language or theory cannot abstract from the domain of value. Rather Boulding worked from a particular view of the relationship between economic life and ethical life whereby the latter, as understood in terms of common values, permeates the former. At the same time, in his later three systems thinking about

social organization he adopted a modified view of this permeation thesis, since there he allows for a relative autonomy of the economic world in that the system of exchange only ‘edges’ onto the threat/fear and integrative/love systems. In this respect, his view comes closer to that of others who have argued that the economic world is at least a relatively value-free domain that nonetheless has value-based boundaries operating upon it set out by the normative concerns of society (cf. Finn, 2006). This suggests that there is something of a tension in Boulding’s view of economics as a moral science between the permeation thesis and the relative autonomy view that calls for final comment.

One interpretation to consider, then, is that the particular set of common values that operates in the economics as a domain investigating the system of exchange are what economists would call methodological values. These are shared value assumptions about how the specific subject matter of economics ought to be explained, and include such concerns as choice of the subject matter to be investigated, the methods to be used in this investigation, and the criteria, standards, and norms that ought to be used to assess and judge the results of this investigation (see Boumans and Davis, 2010, pp. 170ff). Consider the choice of subject matter. Whether economics aims to explain, say, individual choice behavior or income distribution would reflect the normative goals of economists, but what they say then ultimately about these subjects could still be thought value-free. Economics would then not be an entirely value-free science. But this would still be compatible with saying that economics, concerned with the system of exchange, albeit one that sometimes ‘edges’ over toward systems whose sciences are concerned with subject matters that are clearly value-laden (for example, political science in the threat/fear system).

Alternatively, we could ask whether we believe Boulding’s arguments treat the subject matter of economics itself as normative. That is, do the common values he believes operate in any culture, including that of economics, invariably extend to the content of that culture itself, and not just to the ways and methods people have of doing things? Here, it seems, we must note an important idea running from his early general systems view of systems as hierarchically structured to his later evolutionary thinking. What we find in both instances is the idea that what follows at one stage is presupposed in some cumulative fashion by what precedes it at an early stage. On this conception, then, value permeation must be thought pervasive throughout all more complex differentiated systems, whatever their relative autonomy, because they all derive from more primitive systems which were themselves governed by sets of common values. Thus the long history of the world is a history of the emergence of increasingly complex values systems specialized in ever greater ways, and the social world as made up of three different systems of social organization is no less the outcome of a history of human development reflecting common values.

It may appear to economists, then, that the domain of exchange is relatively autonomous so that their values are restricted to their methods of investigation and scientific practices, but Boulding, it seems, would have argued more strongly that the subject itself economists investigate is deeply permeated by common values. Thus common values are pervasive throughout all aspects of a culture or science, and do not just act as boundary conditions upon it. There is an irony in this conclusion however. It is that the development of increasingly complex systems, a process which Boulding would have expected to continue, always makes the common values from

which such systems derive and upon which they depend more distant and difficult to recognize. It was consequently left to individuals such as himself, Boulding would presumably have said, to remind economists of what economics has forgotten, namely, that economics is ultimately a moral science.

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