

KW Kapp: an ecological economist *ante litteram*

ABSTRACT

KW Kapp was a German economist who, well ahead of his time, decried the unsustainability of the development paths starting after WWII. His broad view, inherited from the old-institutionalist school of economic thought, allowed him to develop a meaningful, original and still topical analysis of the causes of unsustainability and environmental degradation. This entry summarises Kapp's thought, connecting into a unitary framework many of his arguments whose links might otherwise remain difficult to recognize. Such a unitary framework facilitates comparison with the ideas that characterise ecological economics.

KEYWORDS: open system, social costs, environmental disruption, dynamic equilibria, interdisciplinarity, incommensurability, human suffering.

Born in 1910 in Königsberg (Germany), Karl William Kapp graduated in Economics and Law at the University of Berlin. In 1933, to escape the Nazi persecutions, he moved to Geneva where he obtained a PhD discussing a thesis on "Economic planning and international commerce". After lecturing at various universities in the USA from 1937 to 1957 he spent several periods as a visiting professor in India and the Philippines, where he was able to observe the scarce success of traditional development policies elaborated without considering their cultural and institutional context. In 1965 he returned to Switzerland as a professor at the University of Basel. He acted as a consultant for the first United Nations Conference on the Human Environment held in Stockholm in 1972. He died from a heart attack while participating in a conference on ecological development at the University of Dubrovnik in Croatia on 10 April 1976. Interested readers will find more details in a biography written by Kapp's last assistant, Rolf Steppacher (1994), and on the website dedicated to him, <http://www.kwilliam-kapp.de/who.htm>.

Well ahead of his time, in 1950 he published a book reporting many sources of 'social costs' generated by the competitive capitalist economy (Kapp, 1950)¹. At the same time, his thoughts came to a mature expression in several articles published mainly in the journal *Kyklos* from the 1960s to his premature death. He belonged to the old-institutionalist school of thought, influenced in particular by T. Veblen, J.M. Clark, G. Myrdal, A. Lowe, F. Perroux and K. Polanyi. At the same time, he was also aware of the major developments occurring in the late 1950s and 1960s in systems thinking and cybernetics (e.g., Ackoff 1960, and Bertalanffy 1968). Kapp masterfully combined

¹ The second edition (1963) broadened and deepened the arguments. The title was changed to *Social costs of business enterprise* to emphasise that public businesses generate social costs as well. In 1971 the 1950s book was reprinted (by Schocken) with the addition of a very interesting introduction.

ingredients from these two fields into a unitary framework that anticipated most of the elements that would later become the core of ecological economics, as also shown by Röpke (2004).

Two other entries in this Encyclopaedia largely refer to specific aspects of Kapp's thought, namely "The economy as an open system" and "Cost Shifting and the Competitive Society". The present entry focuses on his ideas as a whole. Its purpose is to place them in an interpretative framework able to show the unitarity of the different aspects of Kapp's thought, whose links might otherwise be little visible. This allows us to highlight the fact that his key arguments logically follow from viewing the economy as an open biophysical system: Kapp (1976) himself stressed how difficult it is to understand the many epistemological implications of the rather obvious statement that the economy is an open system. Finally, a unitary framework makes it easier to draw comparisons with the ideas that found ecological economics.

As in Georgescu Roegen, whose work was later cited by Kapp (see, e.g., Kapp 1977), societal metabolism is central. The economy and society exchange matter with the natural environment, similarly to what living beings do to keep themselves far removed from the thermodynamic equilibrium, that is, alive (Kapp, 1961, p. 93). Kapp stressed the importance of societal metabolism for environmental disruption, stating that 'the key problem of the open-system character of the economy [...] (is) that production derives material inputs from the physical and decisive impulses from the social system which, in turn, may be disrupted and disorganised by the emission of residual wastes up to a point where social reproduction itself may be threatened' (Kapp 1976, 98; see also Kapp 1977, 531-32).

Addressing the biophysical dimension involves acknowledging the importance of system dynamics and the embeddedness of the economy within the social sphere, both embedded in the natural environment. This is why **matter** (and energy) is at the base of the tree in Figure 1, summarising Kapp's main ideas, complemented on the left and right, respectively, by a sketch of a system and of embeddedness. Two epistemological arguments logically follow: on the one hand, we must admit that phenomena unravel on **many spatio-temporal scales** (e.g. Kapp 1976, 99; Kapp 1977, 529 ff.); on the other, only **interdisciplinary research** can successfully approach the problem of environmental disruption (e.g. Kapp, 1977, 528). Both cornerstones, respectively the need for several non-equivalent descriptions of the same phenomenon (Giampietro, 2003) and inter-disciplinarity (Costanza 1989) or trans-disciplinarity (see, e.g., Baumgärtner et al. 2008), then became keystones in Ecological Economics. Thence four interconnected pillars follow (system dynamics, change, the already mentioned pervasiveness of social costs, and incommensurability) around which the main elements of Kapp's thinking can be framed.

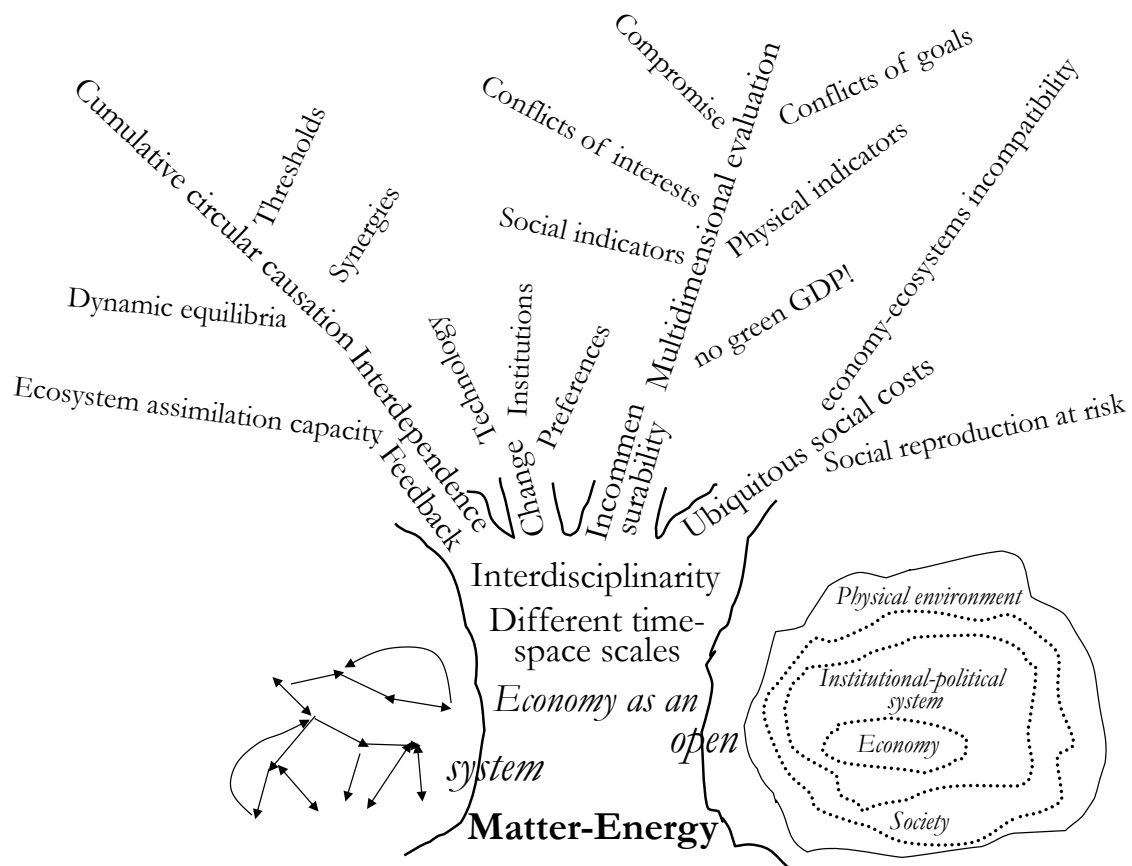


Figure 1: Kapp in a snapshot: the economy as an open system and its implications

As mentioned above, system theory became increasingly topical between the 1950s and 1960s, greatly affecting the development of ecology as well. Kapp perceived that the **dynamic equilibria** and changes in a system are the outcome of negative and positive feedback loops linking its elements and regulating its functioning, and that non-linearities are often at play, determining thresholds and synergies (see, e.g., Kapp 1976, 97 ff., or Kapp 1977, 529 ff.). The left branch of the tree in Figure 1 shows a series of concepts from system theory that Kapp used in his analysis. They include “circular cumulative causation”, an expression used by Myrdal to indicate “positive feedback loops”, that was further elaborated by Kapp (see Luzzati 2009, 2010, and Spash in this Encyclopaedia).

Moving to the right in Figure 1, the next branch shows the importance of **change** in Kapp’s thought, which also follows from his adherence to system theory and the old-institutional approach. Unlike neoclassical economics, Kapp (1976, 102) insisted on the importance of considering change not only in technology and institutions, but also in individual preferences. Following Mill and Veblen, Kapp took individuals not as passive automata choosing available means that best fit given aims, but rather as active, learning and social beings. For him ‘man, with his specifically human intelligence, is capable of using reason and science for the exploration of

goals and as a basis for judgements as to the kind and direction of action to be followed' (Kapp, 1965, pp. 76–7).

The next key concepts shown in Figure 1 (second branch from the right) are **incommensurability** and the need for multidimensional evaluations in social choices. Cornerstones in Ecological Economics (see Alier et al. 1998), they follow straight from accepting complexity, as stated clearly by Kapp: 'the heterogeneous character of the disrupting flows of damages and the complex interdependencies to which we have referred above preclude any measurement and evaluation in terms of a common denominator' (Kapp 1970, p. 846). Arguing in favour of an integrated multidimensional assessment (Kapp 1976, 97), he wrote that 'all monetary evaluations ... [are] problematical if not indeed unacceptable and cognitively irrelevant' (Kapp 1976, 101). This applies particularly to collective decisions for which monetary evaluation is unable to express the 'relative social importance in the sense of value to society (and individuals) both in the short and in the long run' (Kapp 1976, 101) of environmental damage and of public goods and services. Real-world complexity cannot be reduced to a single dimension (see Kapp 1977, 534), expressing serious doubts regarding the 'current proposal of "deducting" social costs from gross or net national product measurements' (Kapp 1976, 104). As for Georgescu Roegen, for Kapp synthetic measurements 'upon closer analysis, can be shown to reflect either the subjective preferences and valuations of the experts and/or powerful vested interests' (Kapp 1976, 100). To refute incommensurability and monetary evaluation is not an impediment for public decisions. 'The elaboration and acceptance of environmental goals call for a collective or social choice with direct participation and expression of preferences by all members of society, even those outside the market and without reference to effective demand' (Kapp 1963, p. 317). In other words, the many conflicting interests and perspectives have to be reconciled through democratic processes². (see, e.g., Kapp, 1976, p. 100; or Kapp, 1977, pp. 536–7). To this end, a broad set of social and environmental indicators must be available, which was lacking at that time, as often decried by Kapp (e.g., Kapp 1974b).

Finally, also the goals of economic policy should be radically different in Kapp's view from those of mainstream economics. For Kapp, top priority has to be given to 'the social and *moral* imperative of minimizing human suffering' (Kapp 1977, 538) and to ensure human well-being and even survival, which are threatened, through environmental disruption, by the economic process (Kapp, 1976, 91). In other words, economic and development policy should prioritise satisfaction

² On democratic processes Kapp wrote: "The author has no illusions about the fact that such a transformation will come about by itself and without struggle. It calls for a genuine democratisation of the state (that is to say, of the centre of political power) and of the economy at all levels, i.e. at the micro level of the firm, the regional and the central level of policy-making' (Kapp, 1974a, p. 138).

of basic needs and compliance with environmental limits (Kapp 1976, 101). A decade later, such a perspective was included in the UN Brundtland report which, just after defining it, specified that sustainable development “contains within it two key concepts: the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs” (Brundtland 1987, 41). Hence, in Kapp’s humanistic view, compromise between the conflicting interests cannot exceed the limits imposed by ethics and by what science suggests about the maintenance of dynamic states of the ecosystems. To sum up, ‘in order to satisfy these human needs [...] (the environmental) requirements will have been defined as objectively as our present knowledge permits and evaluated by means of a deliberate collective, i.e., political decision in comparison to other public goals to be pursued’ (Kapp 1963, 317).

Finally, the first branch from the right recalls the key concept of **social costs** that Kapp started elaborating in his book in 1950. Despite some similarity with the notion of externality, it is much wider and analytically more useful (e.g., Berger, 2015, 2017). Acknowledging the material dimension of the economic process, external effects must be seen as ubiquitous rather than special cases, as in neoclassical economics. Moreover, the systemic pressure arising from economic competition makes it impossible to consider externalities as unintended side-effects; on the contrary, they are generated for the purpose of “cost-shifting” (see Spash in this Encyclopaedia). As a consequence, one of Kapp’s main arguments was that, if unregulated, ‘the organising principles of economic systems guided by exchange values are incompatible with the requirements of ecological systems and the satisfaction of basic human needs’ (Kapp 1976, 95).

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