

---

## 9 Analysing policy values in a knowledge economy

*Phil Graham*

---

It has been noted more than once that capitalist social relations have led to a purely monetary understanding of the term ‘value’. Classical political economy, regardless of its many flawed assumptions, sought to achieve an understanding of human interaction that embraced the entirety of human experience. In its original form, political economy emerged from the more general field of moral philosophy. However, since the mid-nineteenth century, political economy has withered in its scope while enjoying an ever-broader sphere of influence. Because it is a collection of quantitative terms, the price system has thrived under post-Enlightenment science. It has become the single most important public expression of value. In mainstream economics, price has become the primary measure of value for policymakers (Graham 2002). The gradual withering of political economy to ‘economics’, a science of pure price, has had far-reaching implications for the production and analysis of policy. The monetary reductionism of economics has been further exacerbated by the allegedly ‘neoliberal’ policy agenda that has been in play throughout developed countries since the late 1970s.

Ignoring the various meanings of what might be understood by the ‘liberal’ part of neoliberalism, the basic tenets of neoliberal economic theory are as follows. First, competition for resources, market share, more skilled or cheaper labour and so on is assumed to be beneficial regardless of its consequences. Second, such competition is assumed to be global, natural and inherently efficient, producing the best outcomes for individuals and societies. Third, any interference to competition is tantamount to a crime against society, as evidenced in the many legal challenges launched by one government against another in extrajudicial contexts such as the World Trade Organization. Fourth, government is expected to promote and enforce competition, even between its own departments. Finally, it is assumed that the benefits and effects of competition can be understood solely in terms of price. Put as simply as possible, neo-liberal economic theory is based on perverse interpretations of Adam Smith’s ‘invisible hand’ and Charles Darwin’s theory of natural selection.<sup>1</sup> Its analytical framework, at least where policy is concerned, is the field of econometrics, a highly abstract, though mathematically rigorous,

set of tools that has an often tenuous relationship with reality. In the econometric framework, the whole of reality is reduced to models of the price system – past, present and future.

Any contemporary study of the knowledge economy must take the influence of neoliberal discourse into account. It must also consider the social function of policy as well as *how* it is made. Policy, and political science more generally, is more expressly concerned with how we ought to live. In other words, the ‘political’ part of political economy has been charged with legitimate authority over social outcomes. Yet the framework within which political science operates, whether at the level of bureaucratic process or political discourse, is influenced and shaped by the tenets of modernist science, as is the ‘economic’ part of political economy. In other words, policy must be based on ‘good science’, or at least be seen as such.

The scientific impetus of modernity raises problems for contemporary policymakers. ‘Good science’ is objective, replicable, universal and, most important of all, ‘value free’. Therefore policymakers, who are charged under the tenets of their discipline with legitimate moral authority, must, according to the tenets of ‘good science’, divest themselves of their values in order to make ‘good’ policy. This presents a great deal of difficulty for policymakers. To produce objective, value-free policy requires the reduction of the social world to a set of universal, objective, value-free, quantitatively derived ‘laws’. Econometrics and quantitative sociology supply laws such as these.

The paradox of contemporary policy goes to the heart of arguments about the differences between ‘hard’ and ‘soft’ science. Good ‘hard’ science is based on experimental methods that produce predictable and replicable results across multiple and often unrelated contexts: Newton’s laws of gravity, for example, are assumed to be the same on earth as they are on Mars, or as they are in yet-undiscovered galaxies and solar systems. Further, such laws are assumed to be valid throughout eternity. Yet any social science that produces replicable results across all contexts, cultures and times can probably be described as either fallacious, tautological or uninformative. That is because societies and cultures of all kinds change over time, at least to some large extent. Social science that can only show that which does not change, or that which is not different across different social contexts, is therefore of limited use. But the various forms of social science that focus on change, difference and especially on non-quantitative aspects of human experience are generally held to be ‘soft science’ and therefore unsuitable for making policy.

For these reasons the contemporary policymaker is subject to a number of conflicting forces, the most apparent of which are: the unruly characteristics of social life and the unpredictability of social change; imperatives to do replicable, quantitative experimental science that is most amenable to the system of monetary values which dominates international political economy; and the

tenets of neoliberalism. Policymakers are required to formulate policies that are evidence-based, scientifically valid and economically sound. Policy must also be presented in appropriate forms of language. The language of science is the language of *fact*. It is the language of objective, expert descriptions based on verifiable, quantifiable, predictable and replicable aspects of experience. Policy documents therefore appear as a collection of scientifically derived *propositions* (or statements and descriptions). However, to be effective, policies must also function as a collection of *proposals* (specifically, commands or exhortations) that result in people acting and interacting in specific ways.

The language of fact and description is very different from the language of command and exhortation, even though the two can spill over into each other in functional terms. This functional spillage can be demonstrated with a simple example. Almost every parent has been confronted with a child who says: 'I'm hungry', a clear truth claim. Now the nature of propositions, and what defines them as such in distinction to proposals, is that they are open to argument, whereas proposals are not (Halliday and Martin 1993). The child who says 'I'm hungry' is putting forward a proposition that a parent can argue with. Usual arguments would include 'but you just had lunch . . .'; 'you can't possibly be hungry'; and so on. However, as most parents understand, when a child says 'I'm hungry' what he or she means is 'Feed me!' What happens here is that the child draws upon social and cultural relationships to turn a proposition (I am hungry) into a proposal (Feed me!): it is, in most cultures, the obligation of a parent to provide food for his or her children, a social fact understood by both the child and the parent, however implicitly. The obligation that a parent feels is an expression of a long-standing value system that is often referred to as 'family values'. It is from this pool of family values that the utterance 'I'm hungry' derives its social force as a command. It is in the realm of cultural values that the functional transformation between statements of fact and demands for action is operationalized.

The same functional transformation is constantly operationalized within the realm of policy. That is a matter of necessity. Because contemporary policymakers must present their products as the result of a scientific process, contemporary policy relies upon operationalizing what can only be described as an ongoing naturalistic fallacy: a continual movement from 'is' to 'ought', from fact to exhortation. As in the example of the parent-child interaction I have described above, policymakers rely on a multitude of social and cultural patterns to produce a functional transformation from statements of fact to mass exhortations (Graham 2002).

My emphasis on language in the analysis of policy is of threefold significance in the context of a knowledge economy. First, it is axiomatic that what we call knowledge is inherently bound up in language: how we know is shaped to a large extent by what we say to each other, and by how we say it. Therefore

language assumes the utmost significance in any knowledge economy. Second, the ‘commodities’ of the knowledge economy are necessarily products of more or less valued types of language. Finally, language (whether mathematical, spoken, or written) is at the same time a key means of production and distribution for knowledge commodities. To further complicate the matter, policy is almost entirely an achievement of language and exists to propagate new cultural patterns of evaluation – it is simultaneously an expression and legitimation of particular value systems designed to produce specific actions and outcomes by drawing on cultural patterns of evaluation. Further, in a knowledge economy, policy is a most valuable commodity. Billions are spent each year on its production, purchase and dissemination, and much of it has global implications.

Two further problems face evaluative analyses of contemporary knowledge economy policy. The first is the characteristic tendency of policy authors to rely on extremely abstract nouns to convey meaning (Halliday 1994, p. 21; Lemke 1995, pp. 59–65; McKenna and Graham 2000). The second is in the essentially future-oriented nature of policy: it is essentially hortatory; its primary function is ‘to get people to do things’ (Muntigl 2000, p. 147). In the case of the current knowledge economy, this consists of getting people to know particular things in particular ways. However, in operationalizing the hortatory function of policy, contemporary authors are driven by technocratic imperatives to ‘rationalize’ exhortations with ‘facts’, and then to turn facts into exhortations. The hortatory content of knowledge economy policy is therefore usually implicit, disguised as ostensibly ‘value-free’, ‘objective’, statements of fact (Lemke 1995, pp. 60–61; McKenna and Graham 2000).

These aspects of policy introduce the need to make some very basic distinctions. Because the objective of policy is always future-oriented, time and tense, especially in the interplay between proposal and proposition, become problematic – there is little point in trying ‘to get people to do things’ in the past; the explicit and implicit proposals in technology policy are only ever a future-oriented, *irrealis* (roughly, potential or imagined) function of language (cf. Lemke, 1998, p. 36). For the same reasons, the propositions of policy are similarly oriented, often concerning themselves with describing future circumstances (Graham 2002).

There is a distinct division between aspects of language that can describe the world in terms of *substance* and those that can describe the world in terms of *space-time*; or, between language used ‘to specify a set of properties’ for, or predicates of, a particular thing (substance language), and the language used to locate a particular thing at a particular time and place (space-time language) (Harvey 1973/1988, pp. 38–40). The confounding aspect is that ‘space itself can enter into either language but in different ways’ (ibid., p. 39). So can time. Spatial and temporal positioning are necessarily properties of particular

substances (cf. Aristotle 1999, p. 439; Harvey 1973/1988, p. 41). One of the main distinctions I wish to emphasize here is between two broad ‘types’ of evaluations made in policy language: those ‘belonging’ to substances and those ‘belonging’ to processes.

Substances (which can include particular people or groups of people) are realized, explicitly or intertextually, as having attributes that define them in relationship to *other* substances within particular conceptual or ideational spaces (geographical, social, aesthetic, scientific and so on). In latinate grammar, substances would generally be identified by their status as nouns, indicating that they are tangible ‘things’ of one type or another that occupy space and have a static, or at least irreversible, aspect to them (Harvey 1973/1988, ch. 1). In process relationships, the time element – movement and action – is foregrounded. Substances (and substantial spaces), as well as other processes, are set in various relationships to one another over more and less specific periods of time, with causal and functional effects implied or expressed. These two aspects of language are marked by grammatically and conceptually different types of evaluative possibilities in language, but are nevertheless ultimately interdependent aspects of language. Consequently, to pull them apart and analyse them in complete independence from one another would be synthetic and impractical.

The approach to analysis that I am advocating here recognizes that both substance and process aspects of language are invariably present in any evaluative representation, even though they are in many respects irreconcilable. The main differences between them are that specific substances are delineated in terms of their attributes in relation to other substances. Process language, on the other hand, defines time-bound relationships of causation between substances and other processes. In more concrete, or ‘everyday’, language, we would expect to see substances described and delineated by the deployment of ‘relational processes’ that are deployed to assign attributes to things (‘He *has* beautiful eyes’), and to situate them in hierarchical or taxonomic relation to others (‘That *is* a much better house than the other one’) (Halliday 1994, pp. 124–9). Process language is typically realized in everyday language by the deployment of material, transitive processes (John *kicked* the ball). But because of the heavy reliance on nominalization in technocratic discourse, and because the purpose of policy is to translate words into future action, analysis cannot easily delimit realizations along these lines (cf. Graham 2002; Halliday and Martin 1993).

Following is an exemplary policy text that can help us understand how values can be seen in the broader terms I have described so far. The following two paragraphs are from a World Bank publication, *Public Policy For A Knowledge Economy* (Stiglitz 1999) and will serve to illustrate the usefulness of the analytical approach I am proposing:

Development is about the transformation of societies which ultimately involves people changing how they think. External agencies cannot force people to change how they think or what they believe. People can be forced to adopt certain behaviors and to utter certain words, but they cannot be forced to change their hearts or minds. That, they can only do themselves.

In industry, the shift towards a knowledge-based economy involves a shift in organization away from top-down hierarchical structures to flatter structures such as networks of semi-autonomous teams. Tayloristic vertical structures were designed to enforce and coordinate certain physical behaviors while knowledge-based work organization involves greater recognition of the autonomy and self-direction of the mind. Knowledge is best acquired not by passive rote memorization but by the active involvement of the learner. Learning is by doing, not by watching or memorizing. (Stiglitz 1999, p. 6)

Although the entire passage quoted above comprises propositions in the form of statements of fact, it is remarkably open in its emphasis on the need for people to relate, act, organize and think in new and different ways in order to achieve some future outcome. There is an overt Idealist philosophy underpinning the policy here: people must first change *how they think* and *what they believe* for *development* to happen. According to this logic, underdevelopment is merely a function of people thinking incorrectly and believing in the wrong things.

The orientation of the World Bank towards development foregrounds the future orientation of policy. Development is presented as a substance rather than a process, because it compresses an enormous amount of social and technological processes into a noun. In this context, development is defined by particular attributes: it is about the transformation of societies and involves people changing how they think. Further, it is an *irrealis* substance, a potentiality that can only emerge at some time in the future, and only then if people adopt certain behaviours, change their hearts and minds, think in new ways, and believe in new things. In a knowledge economy, autonomy and the self-direction of the mind are key factors in successful industry. These are presented as being somehow different from physical behaviours that Tayloristic organizational structures were designed to enforce and coordinate. In other words, Stiglitz is suggesting that success in the knowledge economy is about building the best organizational structures for managing people's minds: knowledge-based work.

According to Stiglitz (1999), successful knowledge industries are organized in semi-autonomous teams: structures designed to extract products from semi-autonomous minds. Autonomy of the mind can only be, at best, semi-autonomy – the self-direction of the mind essential to the production of new knowledge is regimented according to new management principles, at least to some significant degree. That is a function of defining and regulating what counts as 'useful' knowledge as that which can be turned into economic gain.

This limits the kinds of knowledge that attract investment in a knowledge economy. Unless a particular form of intellectual labour is oriented towards specific outcomes even before it has started, it is unlikely to attract investment, whether as wages or venture capital. The most likely outcome of this orientation is the constant ‘reverse engineering’ of what already exists in industrial commodity forms (new ways to produce food, transport, advertising, entertainment, weapons, soap, etc., none of which is necessarily more efficient than its predecessors). Put more strongly, there is no space whatsoever in such an approach for development; there is only the possibility of new technology – new means to old ends. It is inherently conservative and permits of little or no qualitative difference in terms of development.

Many contradictions of an officially mandated knowledge economy are realized in the World Bank text above. For example, while the author claims that development is a function of how people think, and that systems of management designed to regulate physical activities are of little value in a knowledge economy, the long-standing tensions between Idealism and Materialism become manifest when the topic of knowledge labour is broached. Knowledge, like development, is presented as a ‘thing’ that people acquire by doing material activities, not by watching or memorizing. In other words, the most important knowledge is practical knowledge: knowledge created by material rather than intellectual labour; it is knowledge created by material means that can be applied in ways that realize a price. And it is specific classes of activity that shape people’s ability to know in appropriate ways to produce commodifiable knowledge. By extension, it is the modes and means of ownership over these activities and their products that defines social relations in a knowledge economy – implicit in this conception of development in a knowledge economy is a social separation between knowledge, its owners, its ‘renters’, its managers and its producers.

Semi-autonomous knowledge labour dedicated to the production of commodities is by definition alienated labour – it is not the labour of knowledge for its own sake, or for the labourer’s own sake. To be of use in a knowledge economy, activity must be oriented towards net economic gain within an industrial–commercial framework – it must be saleable, reducible to price. The autonomy of the mind must be harnessed by technical and institutional means and reduced to semi-autonomy; creative processes of cognition thus become primary objects of commercial enclosure, commodification and expropriation. Consequently, in a knowledge economy, intellectual property law assumes the utmost importance, and the ability to delineate and isolate ideas that can be turned into money becomes the very definition of valuable property.

All these aspects of our emergent knowledge economy can be understood when it is seen as emerging from the industrial, commodity-based framework

most often called capitalism. Capitalism has for many years taken on the appearance of a system designed for making money, and making money has become synonymous with 'making a living', whether as employee, manager, share owner, or business owner. The 'underdeveloped' society in contemporary policy parlance is a society that does not have the means to make money by participating in capitalist endeavours. Any ills such societies and cultures suffer are generally construed in policy as the result of a lack of capitalist entrepreneurialism, never as a result of capitalist practices destroying different, supposedly 'backward' ways of living. Yet at the same time, many of the most lucrative knowledge economy initiatives are oriented towards capturing 'traditional' knowledge from such cultures, especially in areas such as medicine and pharmaceuticals for use in biotechnologies (Sunderland 2000). Put plainly, stocks of social knowledge in non-capitalist societies are at least as valuable to capitalist knowledge enterprises as the products of the technologically complex laboratories and research institutions of developed societies.

The bias of 'developed' societies is evident later in the text from which the above quote is taken:

First, in the long run, success in the knowledge economy requires creativity, higher order cognitive skills *in addition to* basic skills. Those countries that find ways of fostering this kind of creativity will, in the long run, have more success in the competition of the knowledge economy.

Second, also key to success in the knowledge economy is training in science and technology. There are good grounds for government subsidies to science education: Because those engaged in research so seldom capture the full benefits of their work, there are, as we noted earlier, real externalities. These externalities may be most marked for graduate education. (Stiglitz 1999, p. 21)

It is paradoxical that Stiglitz, one of the most realistic economists who has inhabited the higher echelons of world knowledge policy production in recent years, and who is well acquainted with the complexities of allegedly underdeveloped economies, should emphasize an entirely 'western' view of knowledge underpinned by the tenets of neoliberalism and its technological biases. Learned skills, both basic and higher cognitive, are construed as creativity, and training in science and technology is seen as essential to development. This of course means 'western' science and technology. While earlier asserting that knowledge is best created in free and relatively open social contexts, the emphasis on demonstrably closed and destructive 'western' ways of knowing, and of applying knowledge, are promoted to the extent that no other 'road' to development is even considered. Success in the knowledge economy is realized by winning an economic competition. Neo-liberalism is realized here in the pretence that human achievement is a function of competition rather than cooperation, one of the most flawed assumptions of contemporary policy.

Much more could be said about the narrow value system that pervades contemporary knowledge economy policy and, indeed, policy more generally. Even more could be said about the very human values that are *not* represented in contemporary policy: beauty, happiness, and the value of knowledge for its own sake; respect for nature, culture, and alternative forms of wisdom; in short, practically every system of values that stands outside the price system has been removed from policy contexts. The slow elision of these values from policy has taken centuries to achieve. Its effect has been the production of a complex of hard, dry and brittle policies that has led to the antagonistic fragmentation of human social systems, whether religious, cultural, familial, or political. The pseudo-Darwinian assumptions of competition that underpin the econometric price system entail the competition of everyone against everyone, and between humanity and the rest of nature.

These aspects of policy are achievements of discourse – specifically, the development, institutionalization and mass deployment of technical languages over many years – and are realized in the language of policy. Policy production is an iterative process of institutional editing according to specific value systems, and the struggle over words and their meaning in this process is intense and self-conscious (Muntigl 2000). Policy analysis therefore necessitates an engagement with the language of policy. But analysis must also realize that policy itself is, or at least has become, a commodity in the political economy of knowledge: it is produced by experts to promote and operationalize very specific values. This is achieved by changing the way people act, including how we think, what we believe, how we express ourselves, and most of all, how we evaluate each other and each other's social contexts.

### Note

1. The argument about whether my interpretation of Smith or Darwin is incorrect or perverse is a sidebar to this chapter. Darwin's theory of evolution through natural selection is a macro theory of how species have come into being over many centuries, not a theory of the quotidian. Adam Smith's mention of the 'invisible hand', read in context, has clearly been blown out of proportion in respect of the rest of his theories. Also, most neoliberal readings of Smith entirely ignore his equally important *Theory of Moral Sentiments*. It seems clear to me, whether for better or worse, that human beings are, as Aristotle pointed out, social animals. Our survival as a species has relied upon cooperation, not competition.

### References

- Aristotle, A. 1999. *The Metaphysics*. Translated by H.C. Lawson-Tancred. London: Penguin Classics.
- Graham, p. 2002. 'Predication and propagation: A method for analysing evaluative meanings in technology policy'. *TEXT* 22:227–68.
- Halliday, M.A.K. 1994. *An Introduction to Functional Grammar*. London: Arnold.
- Halliday, M.A.K. and J.R. Martin. 1993. *Writing Science: Literacy and Discursive Power*. London: Falmer Press.
- Harvey, D. 1973/1988. *Social Justice and the City*. London: Blackwell.
- Leinke, J.L. 1995. *Textual Politics: Discourse and Social Dynamics*. London: Taylor & Francis.

- Lemke, J.L. 1998. 'Resources for attitudinal meaning: Evaluative orientations in text semantics'. *Functions of Language* 5:33–56.
- McKenna, B. and P. Graham. 2000. 'Technocratic discourse: A primer'. *Journal of Technical Writing and Communication* 30:219–47.
- Muntigl, p. 2000. 'Dilemmas of individualism and social necessity'. Pp. 145–84 in *European Union Discourses on Unemployment: An Interdisciplinary Approach to Employment Policy-Making and Organizational Change*, edited by P. Muntigl, G. Weiss and R. Wodak. London: Benjamins.
- Stiglitz, J.E. 1999. *Public Policy For A Knowledge Economy*. Washington, DC: World Bank.
- Sunderland, N. 2000. *Beer, Bread, Cheese, and Heat Resistant Pigs: Reflections on Politics and Discourse in the Modern Biotech Debate*. Queensland University of Technology: Working Paper Series, Centre for the Study of Ethics.