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Metaphorical and Non-Metaphorical Meaning in Ideological Discourses: an Examination of Technocratic Discourses and Counter-Discourses from the Progressive Era

Jeremy Schulz

Abstract *Two contrasting visions of ideological discourse populate sociological treatments of culture. In the work of the British social theorist Margaret Archer, we find a conception of ideological discourse as essentially dialectical and reliant on logically compelling argument. In American sociology of culture, conversely, we find an implicit understanding of ideological discourse as a 'performative' mode of discourse built around emotionally resonant symbols, image, and metaphors. If we take either of these categorical conceptualisations of ideological discourse seriously, then the only discourses which can qualify as ideological are those discourses which are either fully metaphorical or entirely dialectical. In fact, many ideological discourses make use of imagery and metaphors and at the same time feature propositions meant to be interpreted as part of a logically compelling argument. As the paper demonstrates through a detailed examination of the discourses produced by the American technocrats of the 1920s and 1930s, elaborate ideological productions often include both metaphorical propositions and logically compelling argument. Moreover, metaphorical constructions and literal propositions often function as complements in effective ideological discourses. This is especially true when the discourses are addressed to knowledgeable and economically privileged audiences, such as the 'new class' of the pre-depression United States.*

Introduction

When formulating general definitions of ideology, most sociologists tend to converge on a single functional definition centred on the notion of legitimation. In his Weberian reformulation of cultural sociology Bennett Berger defines an ideology as sets of ideas which can be deployed for purposes of 'promoting and defending the legitimacy of group interests' (Berger 1995: 35).¹ Gary Alan Fine emphasises the directive and evaluative

¹Of course, ideology can be defined in completely different terms altogether. Niklas Luhmann, for example, defines ideology in terms of its distinctive capacity to increase the scope of societal decision-making processes by articulating their guiding principles in a form which permits the 'evaluation of values' or second-order reflection. For more, see Luhmann 1982: 98.

functions of ideological discourses in his 'interactionist' treatment of ideology (Fine and Sandstrom 1993). Bernard Barber characterises an ideology as a structure of talk or text which can be called upon in order to 'justify or criticize of the values and norms' of whole societies and of particular groups within societies (Barber 1998: 46, 48). Although sociologists who study cultural processes tend to agree on the essentially (de)legitimizing function of ideological phenomena and processes, they disagree about what constitutes an ideology. While few sociologists would deny that meaning-making acts are necessary constituents of ideological constructions, sociologists have differed as to the kind of communicative events and meaning-making acts constitutive of these constructions. Indeed, when one surveys the theoretical treatments of ideology within the discipline of sociology, one is struck by the incompatibility between the contending conceptualisations of the phenomenon. These conceptual incompatibilities give rise to inconsistencies in the various approaches to the study of ideology, inconsistencies clearly visible in the many empirical studies of actual ideological constructions. In fact, there is a fundamental fault line dividing the competing conceptualisations of ideology, a fault line which has to do with the basic ingredients and processes making up ideologies.

This fault line originates in the conflict between the 'objectivist' understanding of cultural formations inspired by the structuralists going back to Levi-Strauss and the more 'subjectivist' understanding of cultural forms anchored in the presuppositions of symbolic interactionism and other anti-structuralist streams of thought (see Rambo and Chan 1990). Both the radical objectivists and the radical subjectivists (and the moderates who adopt a compromise position) ascribe particular categorial characteristics to ideology. But they make the mistake of ascribing characteristics to ideology *tout court* when the evidence only warrants the ascription of these characteristics to a subset of ideologies. It is impossible to offer a substantive definition of ideology that is categorial in scope because, as Bernard Barber remarks, the 'substantive content' of ideological productions varies enormously from one production to the next (Barber 1998: 49). The task for sociologists studying ideology is, therefore, not to devise categorial characterisations of ideology per se, but to delineate the social and cultural conditions under which ideologies assume their specific forms and acquire their specific substantive content. As I will show through an empirical examination of a particular set of ideologies loosely labelled 'technocratic radicalism', it is both necessary and possible to carry out this task.

Sociological theory's overbroad claims about ideological discourse

Before I delve into the family of ideologies I call technocratic radicalism, I will examine three 'paradigmatic' exemplars of the overgeneralising/essentialising approaches to ideology popular within the discipline of sociology. In analysing each of these arguments, I will show that the author is making categorial claims about ideology when their claims only apply to a specific class of ideologies. To start off I will briefly examine Margaret Archer's radically objectivist approach to cultural formations, an approach outlined in her book *Culture and Agency* (Archer 1988). I will discuss this

approach under the rubric of the 'dialectical' approach to ideology because of its emphasis on the logical relations underlying ideological propositions.² In the course of laying out her sweeping argument about the character of cultural phenomena and their relation to the social world, Archer considers the dialectical processes involved in the production, maintenance, and transformation of ideological productions. She bases the core of her argument on the notion of cognitive or dialectical 'exigencies' (Archer 1988: 239). On Archer's account of ideological meaning-making, all ideological producers must respond to the pressures and constraints stemming from the logical relations between the propositions constitutive of their own ideology and the propositions constitutive of their antagonists' (and allies') ideologies (Archer 1988: 183). When formulating and articulating their ideological positions, ideologists must adapt their productions to the 'ideational environment' in which they are operating. Furthermore, if they want their discursive productions to serve effectively as ideological tools, they must emphasise the logical relationship of contradiction between the propositions constitutive of their claims and the propositions constitutive of the claims advanced by their adversaries (Archer 1988: 240–42). Thus, the development of ideological discourses is ineluctably driven by what Archer calls the situational 'logic of elimination'.

Archer also offers an account of ideological discourses' trajectories over time in terms of their ideational characteristics. Because of the dynamics of ideational competition, she argues, each body of ideological propositions will grow more complex over time, all else being equal. When ideologies are in their infancy, the fundamental task facing the ideologist is to make visible the contradictions between his position and the position staked out by his antagonists. Thus, the articulation of an 'embryonic ideology' (Archer 1988: 247) necessitates the critique of the its counter-position above all else. As the ideology matures, ideologists undertake further refinement and elaboration of its core propositions, as they concentrate on how these propositions logically contradict or negate the propositions advanced by their adversaries. Thereafter ensues a period of 'densification' and complexification during which the formulators of the ideology systematise the network of propositions constituting their ideology (Archer 1988: 178–82). If ideologists succeed in this systematising venture, the ideology's body of discourses can reach a state of self-containment or 'closure' where all the propositions stand in mutual relations of logical entailment or implication. However, it is always possible that, at some later point in the ideology's lifecycle, the pressures for ideational differentiation can lead to schismatic tendencies and sectarianism within the ideology itself (Archer 1988: 256–57).

Archer's view of ideology (and cultural forms more generally) reposes on the premise that there is a single universal logic of entailment and contradiction which applies to every element of an ideological production (see Archer 1988, Rambo and Chan 1990: 641). Thus, she does not bother to address the question

²The term 'dialectical', as a description of a certain mode of thought and expression can be found in Mannheim's writings on cultural and intellectual forms. See Mannheim's 1928 essay entitled 'Competition as a Cultural Phenomenon' (Mannheim 1993: 407).

of how the proponents, sponsors, and adversaries of a particular ideology go about interpreting and rendering specific ideational elements. Yet, as Rambo and Chan observe, one cannot study ideological conflict without touching on the issue of interpretation. An inquiry into the processes of interpretation and counter-interpretation, processes which unfold in historical time, is a necessary part of any serious investigation into ideological conflict and the relation between ideological struggle and social antagonisms.

While Archer errs by overgeneralising the extent to which ideological producers are concerned about the logical relations between their propositions and the propositions in their ideational environment, several American sociologists have gone too far in the other direction. In their haste to distance themselves from the dreaded 'structuralist' fallacy committed by Levi Strauss and others, these American sociologists have embraced a 'performative' and anti-dialectical vision of ideology just as all-encompassing as the vision presented by Archer.³ In the work of the American sociologists of culture Gary Alan Fine and Anne Kane we can see how proponents of the subjectivist position end up committing the same fallacy as Archer. While Fine and Kane offer a useful corrective to the conception of ideology sketched by Archer, they too slide into overgeneralisations.

According to the view of ideology put forward by Kane and especially Fine, ideological texts and speeches rarely contain any propositions meant to be understood and analysed as constituents of rational arguments. Ideological producers never proceed by arguing 'rationally' from premises to conclusions, according to Fine. In his 1993 article in the journal *Sociological Theory*, Fine states that 'ideological formulations are simple and reliant on dramatic images' (Fine and Sandstrom 1993: 27). He also asserts that individuals who come into contact with ideological productions are 'predisposed to accept (or reject) ideologies without thinking' (Fine and Sandstrom 1993: 26). In fact, Fine has conceptualised ideology in such a way as to make the literal content of ideological propositions irrelevant to their role and function as instruments of social struggle. In his empirical analyses of ideological constructs, Fine directs his attention exclusively to the emotional resonances and performative aspects of 'symbols' and 'images' and 'metaphors' and disregards the literal content of ideological discourses altogether. Fine concedes that ideological discourses can mobilise meaning, but insists that this meaning always operates through emotionally charged symbols and what Fine calls 'metaphorical images'.

Kane disagrees with Fine about the centrality of discourse and interpretation in the formation of ideological productions and the trajectories of ideological struggles. Nevertheless, she follows Fine and other 'practice-oriented' analysts of culture in stressing the 'imagological' (Simmons 2000) character of ideological discourses. Where Fine spoke of 'simple images' Kane speaks of 'symbolic systems' (Kane 1997: 253) and 'symbolic rhetoric' (Kane 1997: 255). In her conceptual discussion she borrows Ricoeur's definition of a symbol as something which 'designates a figurative meaning' through

³ Levi-Strauss and his followers consistently inferred a univocal and unequivocal 'code' from the utterances and texts produced by living social actors. Thus, they were radical objectivists in their treatment of culture.

metaphoric analogy (Kane 1997: 256, 257). In her later empirical analysis of the interpretative struggles raging around the 'symbolic' concepts of 'land', 'rent' and 'confiscation' during the Irish Land War of the late nineteenth century, Kane traces the complex operations of analogising and 'interpretative rearrangement' through which the militants and the moderates attempted to manipulate the meanings of these concepts (see Kane 1997: 260–65).⁴ Kane recounts the narrative and dramaturgical strategies through which the Irish militants succeeded in reconstituting the meanings of symbolic terms such as 'rent' and 'confiscation'. Kane asserts that, for the discontented Irish tenant farmers, the term 'rent' evoked connotations of oppression rather than harmonious mutually advantageous exchange (Kane 1997: 256). She points out that, when radical ideologists wanted to arouse sentiments in favour of withholding rent, they impressed these metaphoric connotations upon the minds of their constituencies. They did not show the oppressive character of rent by arguing deductively or syllogistically from well-grounded premises. Rather, the ideological producers activated the well-entrenched associations already engraved in the minds of the disgruntled tenant farmers. In Kane's view, it was the 'fluidity' (Kane 1997: 272) of those concepts undergoing 'reconceptualization' that made it possible for the anti-British ideologists to successfully articulate the claims and grievances of the tenant farmers in an emotionally resonant language. They could afford to leave the literal propositional meaning of 'rent' unchanged, even as they laboured to embed the term in a new 'semantic field' (Eco 1985: 251). Thus, it was not the ideologists' construction of logically compelling arguments which manifested their 'symbolic creativity' (Kane 1997: 257), as Kane calls it, but in the adroitness with which they linked up concepts with previously existing 'semantic fields' that had favourable resonances for their audiences.

While Kane does a fine job analysing the rhetorical strategies of the adversaries in the Irish Land War, she falls into the same trap as Fine and Archer. In the concluding section of her paper, Kane declares that she has 'fleshed out a fundamental key to analyzing meaning construction – the metaphoric nature of symbols' (Kane 1997: 271). Here Kane oversteps the bounds of her evidence and makes an illicit categorical generalisation about ideological productions per se. But Kane can no more support her claims about the necessary centrality of metaphor in ideological struggles than Archer can support her claims about the centrality of propositional content and logic in ideological conflict. Indeed, if we accept Kane's position, we have to dismiss the possibility that literal forms of meaning and dialectical forms of argumentation could predominate in any ideological discourse. If we take her assertion seriously, then all 'persuasive discourses' (Haack 1994: 13) serving ideological functions are metaphorical by definition and can have any propositional content in Archer's sense. Because ideological propositions contain only metaphorical content, persuasion through ideological discourse

⁴We can accuse Kane here of introducing a vastly oversimplified model of metaphorical meaning, where the meaning lines between the literal and the nonliteral terms are traced out by the 'analogical extension', a fancy phrase equivalent to the 'simple association of ideas' which Susan Haack dismisses in her article on metaphorical meaning.

must take place through what she calls 'analogizing extension' (Kane 1997). If we accept Kane's characterisation of ideological discourse, there can be no strictly logical relations of entailment, negation or implication between the symbolic elements of ideological productions.

Both Kane and Archer overlook the fact that the kind of semantic content making up ideological discourses varies considerably between one discourse and the next. Ideological discourses can contain different proportions of literal meaning and 'nonliteral meaning'⁵ (either true metaphors or some other kind of nonliteral signifier). A specific ideological discourse can incorporate either heavily metaphoricised propositions or propositions devoid of metaphorical content or a combination of both types of content. Its makeup depends on the context of its production and the social placement of its sponsors and adversaries. As Barber observes, ideological statements 'come in more or less sophisticated forms' and may 'contain anything that serves a criticizing or justifying function' (Barber 1998: 49, 51). Correlatively, some ideological discourses will operate according to a logic that can be described as disputational and other operate according to the logic of emotional resonance, a logic associated with the metaphors and images favoured by Fine and Kane. It is thus an empirical question whether a specific ideology can be classified as predominantly disputational or resonance-oriented. For this reason we need to study a set of ideological discourses which vary in terms of their level of metaphoricisation. If we are to uncover the social, institutional, and cultural conditions which favour emotionally resonant symbols or, alternatively, literal propositions, we must look at a family of ideological discourses which straddles the divide that separates Archer's dialectical discourses from Fine and Kane's symbolic or performative discourses.

The ideological discourses of technocratic radicalism: thematic regimes and metaphorical language

The discourses concerning the condition of America's socio-economic system during WWI and particularly in the years after the Great Depression (1929–1935) are particularly fruitful empirical terrain for the exploration of literal and metaphorical meaning in ideological communication. The discourses formulated by the technocrats and their opponents were clearly ideological in the sense that they performed both legitimating and delegitimizing functions with respect to the institutions, practices, and classes integral to the emerging order of organised 'producerist' or 'consumerist' capitalism (Cross 1993). First, the technocrats' arguments about the need for a new socio-economic order called into question the moral, technical and social rationales underwriting the capitalist system governed by business elites. Second, the technocrats proposed a vision of the social order where technically competent professionals assume responsibility for steering the

⁵ The linguist J. Hintikka proposes that what defines nonliteral meaning is that it is based on 'meaning lines' which are rooted in relations of analogy and similarity. Thus, the 'nonliteralness' of specific texts has to do with the extent to which these relations figure in the discourses. For a more detailed discussion, see pp. 166–69 in Hintikka (1994).

industrial system. Thus, in justifying an expanded role for engineers in the reorganised order of technocratic industrialism (Layton 1971, Stabile 1986), the technocratic ideology legitimated the status and authority claims of a technical-managerial class (the self-described 'technologists')⁶ chafing at its subservience to the finance and sales branches of the capitalist class.

With respect to their discursive content, the texts produced by technocratic ideologists and their adversaries deserve close attention and detailed analysis. The technocratic family of discourses, which was produced and consumed by the emergent technical and managerial classes in the United States of the 1920s and 1930s (see Akin 1977, Stabile 1984, Jordan 1994), included both highly metaphoricised discourses couched in a common idiom and sober 'scientific' discourses incorporating arcane and technical lexicons (Van Dijk 1998). Taken together, the various strands of technocratic radicalism encompassed an immense range of discourses. When compared with other ideologies concerning the basic 'organizing principles' (Steinberg 1994: 507) of society, including liberalism, fascism and libertarianism, the technocratic discourses exhibit an unusually large diversity of lexicons, idioms, genres, and modes of persuasion. Indeed, in many technocratic texts we find metaphorical and literal language mingled together. The texts written the technocrats' adversaries, typically apologists for existing capitalist arrangements, also deployed a wide range of rhetorical devices and modes of persuasion.

What is perhaps most intriguing about the discursive content of this body of discourse is that it makes use of at least four distinct problematics or thematic regimes (see Boltanski and Thevenot 1991, 1999). These thematic regimes incorporate metaphorical and non-metaphorical vocabularies and modes of exposition in varying degrees. One of the thematic regimes can be considered metaphorical itself. When we read technocratic texts we notice the prevalence of an essentially metaphorical description of the industrialised socio-economic system where the socio-economic system is analogised as a 'machine'. When we read the texts of opponents, we see a corresponding *counter-metaphor* in which the socio-economic system is metaphorically described as an organism or form of life. These metaphors are often inserted into highly 'dialectical' passages where the author is making a point through deductive reasoning.

In other texts we can detect a problematic or thematic regime revolving around specific social actors, typically the social actors involved in the business activities which the technocrats disparaged (namely financiers, salesmen and marketers). This line of critique I will dub the 'parasitic commerce' problematic in honour of William Henry Smyth's memorable formulation of 1919. Unlike the other two problematics, the parasitic commerce problematic should be considered in some of its incarnations as a line of critique aimed at an identifiable set of social actors rather than a somewhat abstract set of practices or institutions. In the writings where this

⁶This formulation comes from Wayne Parrish's book *An Outline of Technocracy*, where he declares that 'in the long run the engineer (the *technologist*, really) will rise to prominence and is bound to operate the economic processes of production and distribution for society as a whole' (p. 17).

problematic prevails, we also find many examples of metaphorical language and imagery.

There are two other problematics, however, where metaphorical formulations do not appear in either the technocratic texts or the texts of their adversaries. I will call the first of these non-metaphorical problematics the 'wastage/overproduction' problematic. This thematic regime focuses on the wastage and underemployment of labour and resources in a capitalist economic system where 'inanimate energy' has supplanted human labour as the chief element of production. In the technocrats' view, this wastage was due to the interest of finance capitalism in maintaining artificial scarcities of products, even when those products fulfilled vital human needs. The technocratic ideologists who worked within this thematic regime eschewed metaphorical formulations and relied on more literal explications of 'the dynamics of social processes' (Dahlberg 1932: xi), explications reminiscent of economics texts. The second of these non-metaphorical problematics, a problematic we can call the problematic of 'the price system', also dispenses with metaphorical formulations.

The metaphors of the machine and the organism in technocratic and counter-technocratic discourses

The metaphor of the 'machine' appears a number of times in a variety of technocratic texts, including texts written by academic authors and texts written by nonacademics such as the practicing engineers Howard Scott and Walter Rautenstrauch (see Akin 1977: 57, 73). The machine metaphor initially embraced only the industrialized production system, but was sometimes extended to the entire society. For example, the opportunistic technocratic ideologist Howard Scott did not bother to restrict the metaphor to the industrial system (Akin 1977: 39), but used it to characterise society as a whole. The underlying logic of this view, as expressed by William Henry Smyth in 1919, is the fundamental ontological equivalence between 'mechanical' and 'sociological' kinds of 'human contrivances' (Smyth 1919: 385).

The best examples of the machine metaphor can be found in the writings of the moderate technocratically inclined academics Stuart Chase and Arthur Dahlberg, however. In Arthur Dahlberg's⁷ 1927 book entitled *Utopia Through Capitalism: A Study of the Possibility and Desirability of a Shorter Working Day*, Dahlberg capitalizes on the semantic potential of the machine metaphor in order to explain the perversity of the new economic system:

We have abstracted from our work-a-day world a consideration of what might be most socially desirable, and have made of production and distribution an end and a world in itself. We have constructed a machine out of interest, wages, and profit. Self-interest is the steam in the boiler. This machine begins turning out food, shelter, and

⁷When he wrote this book Dahlberg was teaching mechanical engineering at the University of Wisconsin. Several years later he was awarded a doctorate in economics.

clothing, but when all of these have been turned out, and diamonds and pearls and platinum rings flow out of the spout, we do not slow down the machine, but keep the whole force firing the boiler all day long. If a workman increases the efficiency of the unit turning out food, more men are then 'released for other productive work' and shifted to new diamond-producing units. (Dahlberg 1927: 31–32)

Stuart Chase, another professional who had one foot in the academic world and one foot in the business world, drafted an influential book several years after the depression in which he made use of the machine metaphor. *The Economy of Abundance* mixes social science modes of argumentation – there are several sets of charts and tables in the book – with fairly popular modes of exposition and argumentation in order to demonstrate how the 'Economy of Scarcity' was obstructing society's path to abundance, a path which machine production had opened up.

In tracing the development of what he calls the 'abundance pattern' (Chase 1934: 96), Chase likens modern industry to a 'single gigantic mechanism':

Modern industry, whether in its remaining machine age phases, or its newer power age development, is one great interlocking process; more and more it takes on the characteristics of a single gigantic mechanism, where every part must be oiled and in good repair if the whole is to function. . . . Modern industry is like a watch. There are, let us say, 200 parts within the watch case. If, in assembling them, one is omitted, the watch will not run. A sundial has no moving parts. But it will not tell time after sundown or in cloudy weather. The sundial represents Scarcity; the watch, Abundance. Observe both the gain in accuracy and in output (time telling) [achieved by the mechanical watch] and the cost of that gain – complex specialization. (Chase 1934: 93–94)

When we compare the two metaphorical formulations, we can see that Dahlberg's boiler metaphor brings into play a different semantic field than Chase's watch metaphor. Dahlberg's metaphor evokes images of the intense mechanical energy expended in production while Dahlberg's watch metaphor focuses attention on the interdependency between the various components of the watch, and the necessity of maintaining each part in perfect working order.

If we read Dahlberg's 1932 treatise *Jobs, Machine, and Capitalism*, we discover that the machine metaphor can be used not only as an expository device to present general ideas about society, but as an actual analytical device with which to represent the relations between 'social variables'. Thus, Dahlberg devotes an entire chapter entitled 'The Chart Technique as a Scientific Method' to touting the advantages of picturing the socio-economic system as a network of 'closed circuits in three dimensions' (Dahlberg 1932: 105). Dahlberg explains that his pictorial method offers considerable advantages to the social scientist interested in grasping the intricacies of the social mechanism:

I believe that every trans-subjective social phenomenon can be shown to be but a subordinate unit in some one of these circuits, and

that every transsubjective social process can be shown to be but an interaction of two or more of these circuits . . . interacting circuits are terse and manageable units of expression compared to cumbersome and ambiguous words . . . this [pictorial] technique aims to make impossible the injection and confusion of the subjective world of reverie, verbiage, and emotional feelings with the objective world of socio-economic facts . . . my diagrammatic means of presentation hopes to overcome this weakness of verbal expression – the tendency to scramble emotional feelings with objective situations – by making it possible to express only non-subjective things. (Dahlberg 1932: 106–108)

The most remarkable aspect of Dahlberg’s chart method is apparent when we inspect the actual diagram foldout at the end of the book. In this extremely elaborate diagram Dahlberg depicts the inputs and outputs of the socio-economic system as flows moving through conduits activated by pumps and what look like pulleys. Various vats and barrels collect the outputs from one network of pipes and transfer them to another network of pipes. In short, Dahlberg represents the socio-economic system as a something akin to a chemical manufacturing plant.⁸

When the anti-technocratic apologist for American business civilization William Kixmiller wrote his 1933 rejoinder to the technocratic manifestos calling for an end to the price system, he countered their machine metaphor with a counter-metaphor of his own. In his book *Can Business Build a Great Age* Kixmiller denounces the technocrats’ proposals to reorganise the system of production and ridicules their plans to do away with price-based coordination of production and distribution. More generally, Kixmiller charges that the technocratic writers misunderstand the nature of capitalism when they equate it with a mechanical apparatus operating according to the laws of ‘social physics’. In his view, capitalism is superior to any mechanical alternative because it is a spontaneous ‘organic’ entity and process, adapting to new conditions automatically and without need of deliberate regulation or steering. In order to grasp the way in which the extended metaphor of the organism insinuates itself into Kixmiller’s argument, we need to acquaint ourselves with passages such as the following:

Capitalism is not just a system; *it is a growth*, an aspect of civilization itself, coming down through the ages. It is perhaps more than ninety percent a momentum coming out of the past; we cannot any more shed this life than we can unitedly agree to change the color of our skins. At birth, a child does not succeed his father, he starts life all over again. A new type of civilization, such as the engineers want, *must necessarily start in the embryonic stage*. It must be primitive and go through its own processes of growth . . . We must consider our order as the beginning of the *virile manhood of capitalism* . . . The more completely science uncovers nature’s energies, the more dependent

⁸ Strangely, the assembly seems to have no moving parts, as it consists mainly of tubes and pipes through which streams of input and output flow to their destinations.

are we upon other than mechanical processes to find a meaning for what is accomplished. *Life consists of more than tools and scientific equipment with which its externals are directed . . .* When the economic body is sick, unscrupulous men create parasitical institutions to prey upon wealth. We believe that there are billions of detailed personal contacts which, under our system, make for *creative life* not possible under any other system. The fatal error of those who preach the need for a new formal order to displace capitalism, is that they fail to realize that it is more than *mere machinery . . . being a universal organism by nature*, capitalism must include the idea of growth. For thousands of years business men pioneered, expanded, and grew in strength *as a business organism*, in which each cell (person, partnership, or corporation) as a profit-making unit. (Kixmiller 1933: 4–6, 26, 37–39, 82)

Kixmiller intentionally counterposes his metaphor of capitalism as a living, organic ‘growth’ to the technocrats’ vision of the industrial apparatus as a machine. In these passages Kixmiller emphasises the artificiality of mechanised civilisation. It is worth noting here that, in one particular passage about the management of the capitalist apparatus, Kixmiller relies on the same metaphor which he had previously sought to undermine with the counter-metaphor of the organism. At the close of his pro-capitalist manifesto, Kixmiller writes:

Again, there should be no such thing as technological unemployment, meaning the laying off of men because of new machines, or new methods of efficiency. These improvements, resulting in more effective production of goods, should create their own purchasing power . . . we are obliged to perfect a gyroscopic adaptation of the *profit-making machine*. (Kixmiller 1933: 295)

Strangely enough, Kixmiller reverts to the technocrats’ own metaphor at the precise moment when he contests one of their central claims, the claim of technological employment. When Kixmiller takes issue with the technocrats’ argument about the mismatch between the surplus of commodities and the shortfall in consumers’ purchasing power, he actually takes over their metaphor of the machine. However, Kixmiller’s machine manufactures profits rather than goods, unlike the machine of the technocrats’ which spews a limitless quantity of finished products.

When we examine the semantics of these metaphorical formulations, it becomes apparent that they constitute attempts to concretise what appears initially as a very abstract phenomenon – the production system or capitalism. As such, these formulations substitute concrete entities for abstract entities, demonstrating Lakoff’s point that metaphorical formulations typically serve to ‘structure the less concrete and vaguer concepts in terms of more concrete concepts which are more clearly delineated in our experience’ (Lakoff and Johnson 1980: 112). Kixmiller’s counterposition of the antonymic metaphors of the machine and the living organism serve to broadcast and dramatise the ideational opposition between his vision of the economic system and the vision advanced by the technocrats.

The thematic regime of parasitic commerce and irrational finance

As we saw in the previous section, the technocrats found it useful to enlist the metaphor of the machine when presenting their ideas about the incompatibility of commerce-driven capitalism and industrialised production. The technocratic writers also made use of metaphorical language when articulating their arguments about the inability of capitalists and financiers to effectively administer the industrial system. Practically all of the technocratic ideologists dedicate some portion of their texts to disparaging the competence and rationality of the financiers, salesmen, advertisers, bankers and other 'non-producers' (Gantt 1916: 69) who systematically misappropriate the resources of American society and impede the progress of American industry. In his 1915 lectures published in a volume entitled *Industrial Leadership*, Henry Laurence Gantt (Jordan 1994: 59), the influential Taylorite and founder of the technocratic group The New Machine, dismisses the contributions of salesmen to the productivity of the economy, observing that 'merchandizing and distribution have little in common with productive labor' (Gantt 1916: 110). Four years later William Henry Smyth, a highly successful engineer with numerous patents to his credit, published an article entitled 'Technocracy – Ways and Means to Gain Industrial Control' in the *Industrial Management* journal. Smyth, like Gantt, Chase and most of the other technocratic writers, distrusted both financiers and salesmen on account of their devotion to profit-making rather than production. For Smyth and the other technocrats, the profit-minded elements of the socio-economic apparatus were responsible not only for choking off the supply of necessary goods so urgently needed by the citizens of the United States, but for perpetrating a wholly irrational approach to the management of the economic system. At the same time that he exalts the rationality of science and engineering, Smyth assails the rationality of finance and of modern forms of money. Interestingly, he likens finance to a form of magicised religion which is hamstringing society, and preventing it from harvesting the fruits of technical and scientific progress. The following passages from the article illustrate how Smyth takes advantage of this extended metaphor:

Like our religious forms, our Economic System is hoary with age – a survival from ancient Babylonian custom. It rests on assumptions unsanctioned by science; its effects are causeless, the miraculous supersedes natural causation; mystery takes the place of human reason . . . from this miraculous store the 'Wizard of Finance' with his wonder-working wand – 'Credit' – filches back (for a slight present tangible consideration and without the owner's consent) the products of imagined future toil of unborn generations of workers – a doubly thievish process, as black in morals as in logic . . . 'Money'. While supposedly representing lifeless things (that wear out by use), 'money' is conventionally endowed (by financial magic) with everlasting life, and also with life's unique function – reproduction . . . Social conventions – our Economic and Financial System – which by 'money magic' makes these 'chance' catastrophes into controlling factors in the distribution of the product of human effort, are simply tragic monuments to ignorant superstition, mental laziness, and criminal folly. (Smyth 1919: 386–88)

Smyth's metaphorical language and hyperbolic style conspire to convey with vivid immediacy the 'incredibly unscientific, irrational, and utterly puerile' character of modern finance and economics. Thus he assimilates finance to the kind of primitive magical religion that does not know its own limitations and flaws. The metaphor of religion is also utilised by Smyth to convey the awesome power of science and engineering, but in this case the religion is of a mature kind:

The Mechanic has courageously invaded Nature's guarded realm; has accepted her 'no quarter' terms; and has assumed complete responsibility for his revolt against all the Ancient Occult Powers. He predicates that 'God' and 'Nature' are limitlessly competent to care for their own infinite concerns; hence, that his problems involve only what the Mechanic wants, and not the 'wants of God'. Insofar as concerns his art (and with reverence for Universal Order, which makes his art possible), the Mechanic, in effect, says: 'This I will'. 'Thus I do', 'I am the Earth-god of things, of matter, and of motion!' (Smyth 1919: 388)

While finance resembles magical religion that oversteps its proper boundaries, science resembles a mature religion that accepts its own limits. Thus, the metaphor of religion, or, more precisely, the worship of the occult, serves as a rhetorical device whereby Smyth impugns the rationality of the business establishment administered by financiers.

The thematic regime of wastage/overproduction

Most of the technocratic ideologists, while sprinkling their texts with the occasional metaphor, rely much more heavily on conceptually dense arguments overflowing with the abstractions of economics. This is particularly true of the passages where the subject has to do with the dynamics of the industrial capitalist system of production and distribution, a highly controversial and contentious topic in the years during WWI and the years following the Great Depression (Jordan 1994, Cross 1993, Hunnicutt 1988). These two periods witnessed an outpouring of discourses concerning the themes of technological unemployment, the overproduction of unwanted goods (what Dahlberg called 'inane commodities'), and the suitability of high 'productivity' wages for workers. Many critics of the existing system, including the technocrats and their sympathizers, wondered how the vast output of the mechanised production system could be absorbed by an underemployed and underpaid population lacking purchasing power. When we read passages from Dahlberg's *Jobs, Machines, and Capitalism*, for example, we find the outline of the standard technocratic argument about technological unemployment and wastage.

As we can see, Dahlberg builds his argument around the conceptual tools of demand, supply, productive capacity, etc. tools familiar to any economist or indeed any educated person concerned with economic issues. In addition, Dahlberg proceeds with his argument by means of logically compelling reasoning about the interrelations of variables such as labour supply, labour demand, productivity enhancements, and profit-making

activities. These variables figure prominently in practically all of Dahlberg's formulations:

I have shown how one of the adjustments, which Capitalism makes to the injection of labor-saving machinery, is to devise new wants which call for goods production in which displaced labor can find opportunity . . . But there can be other recourses open to displaced workers than the one just mentioned – recourses very seldom mentioned as being adjustments to scarcity of [work] opportunity – and, as far as I know, never explained; the recourses, namely, of finding employment in industrially unnecessary jobs involved in distribution. (Dahlberg 1932: 54–55, 111)

Dahlberg's highly dialectical mode of presentation is typical of most technocratic texts. Chase, when explaining the connections between technology and underconsumption, articulates his point in the following way:

Consumers have bargaining power in the market if they have something vendible to exchange, of which the two chief items are labor and raw materials. Both have been seriously deflated [because of the post-depression inflation outbreak]. An abundance economy has enormously reduced the value of labor by supplanting it with inanimate energy. The production of raw materials has been extended and cheapened by technology, leading to what is called 'overproduction' by capitalists. Sometimes they call it 'underconsumption', without realizing that this is a serviceability phrase and has no place in their economics. Overproduction destroys the bargaining power raw material men – especially farmers. As all the necessary drafts of labor and raw material can, in the power age, be supplied by fewer and fewer individuals, those squeezed out have no place in the market at all, and no way to secure adequate money to buy the goods they need. (Chase 1934: 139)

When Wayne Parrish, the official spokesperson and populariser of technocratic ideas in the early 1930s (Akin 1977: 83), discusses the phenomenon of technological unemployment so central to the diagnoses of the technocrats, he also speaks in the language of economics, peppering his expositions with terms such as 'upward curves':

In the final analysis, the war between men and machines is a war between man hours and energy. Man hours is simply an expression to represent the work of one man for one hour. It is the application of increased energy to machines that sends the production curve upward and the man hour curve downward. What has happened within recent years in the United States is a decrease in the total number of employees per industry, an increase in the [quantity of] production per industry, and a decrease in the labor cost per product. In many lines the man hours are approaching the zero point . . . (Parrish 1933: 60)

Parrish's book, like Scott's own manifestos, are full of tables and charts containing quantitative data about the rate at which mechanised production processes are displacing human workers. Scott includes statistical analyses of 'the energy conversion rate' to support his contentions about the productive capacity of modern mechanized industry. The technocrats were not the only participants in the 'new economy' debates of the early 1930s to address the question of technological unemployment, however. One of their foremost adversaries, William Kixmiller, responded to their claims about technological unemployment with counter-claims of his own:

Millions and no doubt billions of automatically timed activities are thus brought into play under the laws of supply and demand as it operates through capitalism . . . by means of the automatic, voluntary competitive process of the capitalist system, dependent on the natural laws of economics . . . Now, however, because mass production requires mass consumption, business must perfect circulation. in order for the new economy to function, *there must be an adequate flow of purchasing power to the producer so that as consumer he can buy the products of industry* . . . under the new system there will be a natural leveling of humanity because the success of the new system depends upon a large consuming population; in general, to make money you must serve this population – make goods and help build a large market for these goods . . . the improvements in productive efficiency brought about by technological developments, *resulting in a more effective production of goods, should create their own purchasing power* . . . (Kixmiller 1933: 33, 249–51)

Again, there should be no such thing as technological unemployment, meaning the laying off of men because of new machines, or new methods of efficiency. These improvements, resulting in more effective production of goods, should create their own purchasing power . . . we are obliged to perfect a gyroscopic adaptation of the *profit-making machine*. (Kixmiller 1933: 295)

Here we see that Kixmiller invokes a version of the 'conservation principle' familiar to economists under the rubric of 'Say's Law'. This principle stipulates that it is impossible, under a market system, to produce an aggregate of commodities which exceeds the effective demand for them. This is true because the 'magnitude of aggregate demand is brought into equality with the value of existing commodities' by the operation of supply and demand (Mirowski 1989: 169–70). Kixmiller invokes Say's Law by announcing that capitalism will find a way to convert the labouring classes into consumers, thereby staving off the 'overproduction' crisis which the technocrats are prophesising. In this passage Kixmiller is professing his allegiance to a principle explicitly rejected by the technocrats. Dahlberg and other technocrats express their scepticism regarding Say's Law in no uncertain terms:

Of course, the tenets just enunciated imply in the first place that I doubt the correctness of the view, which is considered to be almost a

truism in economics – that ‘the demand for labor can never be less than the supply of it’ – that production creates its own demand-and that this demand will provide a new activity [for displaced workers] . . . (Dahlberg 1934: 27–28)

In this way, Dahlberg adopts a position which constitutes a logical negation of his opponents’ position. Dahlberg and Kixmiller end up formulating non-metaphorical propositions whose literal meanings contradict each other in a logical sense. Here we see an instance of the kind of logical ‘negation’ described by Archer as constitutive of ideological discourse.

Metaphorical and literal meaning in technocratic and counter-technocratic discourses

As I argued in the initial section of the paper, sociological analysts of culture have mistakenly conceptualised ideological production as either dialectical or performative. At the same time they have construed ideological content as either literal or metaphorical and ideological ‘logic’ as either ‘deductive/evidentiary’ (McCloskey 1994: 208) or ‘imagological’ in Simmons’ term (Simmons 2000). I have sought to expose these dichotomous classifications as fundamentally unsound. Actual ideological discourses mix together these two modes of ideology and ideologising. This is particularly true of extremely sophisticated and elaborate ideological edifices, such as the edifice of technocratic radicalism. As we saw in previous section, technocratic and anti-technocratic ideologists intermingled metaphorical formulations such as the industrial ‘machine’ or the capitalist ‘organism’ with non-metaphorical formulations about the dynamics of wages, industrial output, profits and other subjects rendered in literal language. Similarly, sometimes they dramatised the antithetical character of their positions by devising vivid counter-metaphors. Metaphors formed an important element in the technocrats’ rhetorical arsenal. By enlisting the metaphor of the social machine, Chase and Dahlberg could capitalise on the popularity of the idea of mechanism and the enthusiasm for its application to all fields of human activity, an enthusiasm which gripped American business and governmental elites from the beginning of WWI to the late 1920s (see Jordan 1994: 44–65). When Smyth metaphorically characterised the financial class as a class of magicians and occultists, he was taking advantage of a potent metaphor in order to discredit the technocrats’ class antagonists – the financiers.

The passages I have examined, particularly the metaphorical passages about the socio-economic machine and the capitalist organism, show how the technocratic and anti-technocratic ideologists of the 1930s succeeded in sustaining the logic of negation even when they abandoned literal meaning in favour of metaphorical meaning. By rhapsodising about the capitalist organism, Kixmiller not only demonstrates the deficiencies of the technocratic vision of the socio-economic order, but was dramatising the depth of his opposition to their worldview. Of course, these metaphors were employed mainly as embellishments in texts which largely adhered to the evidentiary/literal model analysed by Archer. The technocrats, as we have seen, did not

shy away from very sophisticated and complex formulations, even to the point of risking the incomprehension of lay audiences. Dahlberg, in the preface to his 1934 book, states that he deliberately avoided 'verbalized generalities' and relied instead on the 'rigorous presentation of ideas about the dynamics of social processes' (Dahlberg 1932: xi). Thus, most of the technocrats filled their manifestoes with the kinds of literal propositions hypothesised by Archer. They even sought to make their premises explicit, as when Dahlberg rejects Say's Law. Their adversaries operated in a similar fashion. Kixmiller, by making an explicit commitment to Say's Law, dramatises his anti-technocratic stance in a powerful way. Kixmiller confronts the technocrats' position on the terrain of rational evidentiary argument, the very terrain which the technocrats had claimed as their own.

If we grant that metaphorical discourse can coexist side by side with dialectical discourse, and Archer's logic of negation can operate with nonliteral content as with literal propositional content, why would any competent ideologists rely on techniques of persuasion where the bulk of the ideological work is left to vague symbolic concepts? In order to answer this question, we must return to the discourses of the Irish Land War mentioned in the initial section. If we compare the technocratic/anti-technocratic discourses to the discourses of the Irish Land War, discourses which Kane characterises as essentially metaphorical,⁹ one is struck by the dramatic differences in the scope of the claims being made by the respective ideologists.

⁹ But this does not mean that these discourses incorporated genuine metaphorical content. Kane is wrong when she mistakes the connotations of terms like rent and confiscation (i.e. injustice and oppression) for metaphors. Kane claims that the evocation of injustice by the term 'rent' was metaphoric because: 'rent and oppression belong to different contexts – one is a legal contract, the other a political condition' (Kane 1997: 255). Kane is correct when she pinpoints the operation of the metaphor as entailing a cross-over from one 'semantic field' to another (Steinhart and Kittay 1994: 42). However, I would argue that institutions like land tenancy are simultaneously economic, insofar as they make it possible for social collectivities to coordinate productive and consumptive activities, and political, inasmuch as they distribute claims to resources on the basis of which individuals and groups can construct authority relations. More importantly, Kane errs when she classifies rent as a metaphor because the term rent, as used by the militants, actually does not function as a metaphor. In order to function as a metaphor, a term or phrase must substitute for its metaphorical signified (Eco 1985). 'Injustice' remains a *connotation of 'rent' without being supplanted by it*. In fact, the militant discourses of the Irish Land contain neither metaphorical content or complex literal content. What they contain instead are simple symbolic concepts with very resonant connotations. Indeed, 'rent', as a central property right institution, is a paradigm case of the 'essentially contestable concept' (Freeden 1996: 55–59) dear to observers of political ideologies. Rent, as a concept with normative or appraisive connotations, can signify either fair exchange, what takes place in a sphere Kane defines as the domain of 'legal contract', or unfair exploitation, what transpires in a sphere Kane incorrectly defines as 'political'. But the contestability of the concept and the multivocality of its connotations does not make it metaphorical. The metaphoricity of the concept issues from its substitutability, its capacity to convey 'one concept in terms of another', in the words of George Lakoff (Lakoff and Johnson 1980: 10).

The militants in the Irish Land War did not see fit to critique the economic system as a whole. Rather, they concentrated their efforts on exposing the inadequacies of the institutions of rent and land tenancy, as these institutions had been constituted by their British overlords. Kane conveys the content and tone of their claims by presenting an excerpt from a speech delivered at a 'land meeting' by a prominent Irish nationalist in 1879. We can see from this speech how limited these claims were in their scope:

It follows, then, that the present rents being too high, justice demands their reduction. But, judging from the past, we know that, unfortunately, there are landlords who do not look to what is just, but to what the law will permit. If, then, the landlords who are now demanding exorbitant rents do not lower them to meet the requirements of the times and the altered circumstances of the tenant farmers, let the tenant farmers meet together, and consult together, and settle among themselves what would be fair, equitable rent, and if that is not accepted by the landlord – why, let them pay none at all. (Kane 1997: 266)

The militant tenant farmers and nationalists involved in the debates around rent and tenancy were not interested in reorganising the economic system in its entirety, or even overturning the institution of land tenancy itself. Rather, they sought to reform the way in which the institution functioned so as to make it more responsive to the needs of the land tenants. The fact that their grievances were related to a fairly concrete set of circumstances – the excessive rental rates the landlords were charging – meant that the only semi-abstract concepts to which they needed to refer were the concepts of 'rent', and, to a lesser extent, the underlying concept of property rights (Kane 1997: 270). Compared to the themes addressed by the technocratic and anti-technocratic ideologists, the themes addressed by the Irish Land War militants were pitched at a low level of abstraction. It sufficed for the purposes of the Irish militants to evoke the sense of injustice which was already associated with rent in the minds of their audiences, the small-scale and large-scale tenant farmers who could not afford the rents levied by their British landlords. Their discourses could operate at the imagological level where both metaphorical formulations and evidentiary/deductive modes of rational argumentation (Lakoff and Johnson 1980: 87–89) were unnecessary. The technocrats and their opponents, by contrast, wanted to accomplish something more radical and far-reaching. They sought to demonstrate the necessity for and viability of a new way of organising the fundamental socio-economic institutions of American society. Their mission was more thoroughly ideological than the mission of the Irish militants inasmuch as the technocrats aspired to 'reorganize taken-for-granted modes of experience and patterns of conduct', the hallmark of all truly ideological discourses according to the sociologist Ann Swidler (Swidler 1986: 279).

The profound difference between the character of the technocratic/anti-technocratic discourses and the Irish Land War discourses are also interesting from a sociological standpoint. For the technocrats were staking out their positions on the new economy at the very historical moment when the 'new

class' of technical workers (Stabile 1986) were asserting their competence and authority vis-à-vis the new institutions of industrial capitalism. The technocrats were themselves drawn from this emerging class. Dahlberg worked as a consulting economist for industry, Chase worked as an accountant for the US government, Graham Laing, Walter Rautenstrauch, Richard Tolman and others all held academic appointments in the natural or social sciences, Smyth was a practicing engineer and Parrish worked as a professional journalist (see Parrish 1933: 19, Akin 1977). Indeed, Howard Scott, the lone prominent technocrat without a professional position, felt it necessary to fabricate a phony academic record attesting to his extensive training in engineering (Parrish 1933: 20, Akin 1977: 28). Not only were the technocrats socialised within the milieu of the emerging professional class, but they directed their argument at the potentially sympathetic members of this class. Stuart Chase wrote that he hoped *The Economy of Abundance* would speak to the 'managers and technicians of industry as well as to the academic world' (Chase 1934: xiii). Because the technocrats occupied a particularly privileged position in the class structure of the American society of the 1920s and 1930s, they had the means and the resources, both material and symbolic, to craft lengthy and elaborate treatises and manifestos. Moreover, they were trained and educated in such a way that they could appreciate a logically compelling argument (see Berger and Luckman 1967). Both the technocratic ideologists and their opponents were sensitised to the compelling property of evidentiary/deductive argument. They naturally gravitated towards formulations rich in literal propositional content. As we saw with Dahlberg and Kixmiller, sometimes they even endeavoured to make explicit the underlying premises of their position and the (mistaken) premises of their opponent's position just as Archer had predicted. By contrast, the militants of the Irish Land War lacked the material and symbolic resources available to the technocrats. Consequently, they were constrained to address their audiences primarily through speeches and editorials in newspapers and they had to use a common idiom and vocabulary (Kane 1997). Further, the militants of the Irish Land War recognised the limitations of their audience, which was composed of farmers and other uneducated people. Such an audience could not be expected to respond favourably to longwinded expositions of macroeconomic theory.

References

- Akin, W. 1977. *Technocracy and the American Dream: The Technocratic Movement, 1900–1941*. Berkeley, CA: University of California Press.
- Archer, M. 1988. *Culture and Agency: The Place of Culture in Social Theory*. Cambridge, UK: Cambridge University Press.
- Barber, B. 1998. *Intellectual Pursuits: Towards an Understanding of Culture*. Lanham, MD: Rowman & Littlefield.
- Berger, B. 1995. *An Essay on Culture: Symbolic Structure and Social Structure*. Berkeley, CA: University of California Press.
- Berger, P. and Luckman, T. 1967. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. New York: Anchor Books.
- Boltanski, L. and Thévenot, L. 1991. *De la justification: Les économies de la grandeur*. Paris: Gallimard.

- Boltanski, L. and Thévenot, L. 1999. 'Sociology of Critical Capacity'. *European Journal of Social Theory* 2:3, 356–79.
- Chase, S. 1934. *The Economy of Abundance*. New York: Macmillan.
- Coser, L. 1997 [1965]. *Men of Ideas: A Sociologists' View*. New York: Free Press.
- Cross, G. 1993. *Time and Money: The Making of Consumer Culture*. London: Routledge.
- Dahlberg, A. 1927. *Utopia through Capitalism*. Madison, WI.
- Dahlberg, A. 1932. *Jobs, Machines, and Capitalism*, New York: Macmillan.
- Eco, U. 1985. 'The Semantics of Metaphor'. In Robert E. Innis (ed), *Semiotics: An Introductory Anthology*. Bloomington, IN: University of Indiana Press, 250–71.
- Fine, G. A. and Sandstrom, K. 1993. 'Ideology in Action: A Pragmatic Approach to a Contested Concept'. *Sociological Theory* 11:3, 21–38.
- Freeden, M. 1996. *Ideologies and Political Theory: A Conceptual Approach*. Oxford: Clarendon Press.
- Gantt, H. L. 1916. *Industrial Leadership*. New Haven, CT: Yale University Press.
- Haack, S. 1994. 'Dry Truth and Real Knowledge'. In Jaakko Hintikka (ed), *Aspects of Metaphor*. Dordrecht, Netherlands: Kluwer Academic Publishers.
- Hunnicut, B. K. 1988. *Work Without End: Abandoning Shorter Hours for the Right to Work*. Philadelphia, PA: Temple University Press.
- Hintikka, J. 1994. 'Metaphor and Other Kinds of Nonliteral Meaning'. In Jaakko Hintikka (ed), *Aspects of Metaphor*. Dordrecht, Netherlands: Kluwer Academic Publishers.
- Jordan, J. M. 1994. *Machine-Age Ideology: Social Engineering and American Liberalism*. Chapel Hill, NC: University of North Carolina Press.
- Kane, A. E. 1997. 'Theorizing Meaning Construction in Social Movements: Symbolic Structures and Interpretation in the Irish Land War, 1879–1882'. *Sociological Theory* 15, 249–76.
- Kixmiller, W. 1933. *Can Business Build a Great Age?* New York: Macmillan.
- Lakoff, G. and Johnson, M. 1980. *Metaphors We Live By*. Chicago: University of Chicago Press.
- Layton, E. Jr. 1971. *The Revolt of the Engineers: Social Responsibility and the Engineering Profession*. Cleveland OH: Case Western Reserve University Press.
- Luhmann, N. 1982 [1971]. 'Positive Law and Ideology'. In Charles Larmone (ed), *The Differentiation of Society*. New York: Columbia University Press.
- Mannheim, K. 1993 [1928]. 'Competition as a Cultural Phenomenon'. In Kurt H. Wolff (ed), *From Karl Mannheim*. New Brunswick, NJ: Transaction Publishers, pp. 399–437.
- Mannheim, K. 1936 [1929]. *Ideology and Utopia: An Introduction to the Sociology of Knowledge*. San Diego CA: Harcourt.
- McCloskey, D. N. 1994. *Knowledge and Persuasion in Economics*. Cambridge: Cambridge University Press.
- Mirowski, P. 1989. *More Heat than Light: Economics as Social Physics, Physics as Nature's Economics*. Cambridge: Cambridge University Press.
- Parrish, W. W. 1933. *An Outline of Technocracy*. New York: Farrar & Rinehart.
- Rambo, E. and Chan, E. 1990. 'Text, Structure, and Action in Cultural Sociology: A Commentary on Positive Objectivity in Wutnow and Archer'. *Theory and Society* 19, 635–48.
- Simmons, J. 2000. 'Ideology, Imagology, and Critical Thought'. *Journal of Political Ideologies* 5:1, 84–101.
- Smyth, W. H. 1919. 'Technocracy – Ways and Means to Gain Industrial Democracy'. *Industrial Management*. XII:3, 23–29.
- Stabile, D. 1984. *Prophets of Order*. Boston: South End Press.

- Stabile, D. 1986. 'The Political Economy of the Engineer'. *American Journal of Economics and Sociology* 45:1, 145–69.
- Steinberg, M. 1994. 'The Dialogue of Struggle: The Contest over Ideological Boundaries in the Case of the London Silk Weavers in the Early Nineteenth Century'. *Social Science History* 18:4, 505–42.
- Steinhart, E. and Kittay, E. 1994. 'Generating Metaphors from Networks'. In Jaakko Hintikka (ed), *Aspects of Metaphor*. Dordrecht, Netherlands: Kluwer Academic Publishers, pp. 114–39.
- Swidler, A. 1986. 'Culture in Action: Symbols and Strategies'. *American Sociological Review* 51, 273–86.
- Van Dijk, T. 1998. *Ideology: A Multidisciplinary Approach*. London: Sage Publications.