
ANT AND THE INVASION OF ECONOMICS

INTRODUCTION

It is little wonder that commentators on Actor Network Theory (ANT) are driven to distraction (see Amsterdamska 1990 for example). Even leaving aside the opaque nature of the claims being made (hypotheses? empirical generalisations? working assumptions? pre-suppositions?), there is so much to demur from, object to, have reservations about, say differently, correct, and downright disagree with, that it is hard, almost impossible, to know where to start. Take up any particular study, case, argument or point, and pretty soon one finds oneself so deep into a ramifying rabbit warren of verbose arguments, neologisms, excursions and character assassinations, that one is in danger, if not quite of losing the plot, then certainly being unable to recall, summarise and secure any logical accumulation that might be lurking there. Whole conceptual edifices get built but it becomes impossible to say how the structure is actually supposed to hang together.

This Joycean style has two consequences. First obscurity and baroque argument obscure the ambitious programme which ANT has set for itself. ANT does not want just to change the way science is studied and described, nor does it limit itself to orchestrating a revolution in Sociology. ANT's ambition is the overthrow of the predominant way in which *all* the social sciences *as well as* Philosophy is carried on *as well as* sorting out the relationship between 'science' and 'society'. Second, the rhetoric makes a just evaluation of those ambitions, both the rationale for them and the strategy for delivering its aims, difficult. Pinning ANT down in order to see which of its claims are reasonable and whether what it is proposing is genuinely plausible is a Herculean labour.

Our response to what is mostly just ANT's stylistic conceit is a deliberately simplifying and containing strategy. In this chapter and the next, we offer cameo evaluations of ANT's programme; deliberately miniaturised versions of what reasonably full accounts might look like. This means that while we try to get round all the essential and important aspects, we will not try to set each of these out in detail and fully justify our stance on them. Rather, we want to give a sense of what an overall evaluation (a) might look like and (b) might come to. In this essay we will work with just one example, namely Michel Callon's efforts in *What does it mean to say Economics is Performative?* (2007) to re-position ANT as the saviour of Economics (and also, perhaps, of the management of the global economy). In the next essay, we look at ANT's attempt to overthrow the dominant modes of conventional Sociology and Philosophy. Our aim is to show that where ANT is innovative, it is not Sociology and wrong; and where it is Sociology, it is largely uninteresting.

APPROACH

Because of this containing strategy, our account of ANT has a certain amount of edge. Given that ANT itself is nothing if not self-confident and assertive, we do not see this as likely to pose problems. Since the rhetoric ANT uses is one of its main ploys, we will start by picking out a number of common tropes generally used to organise ANT's positioning and arguments. These both shape topics for discussion and pre-dispose certain kinds of responses. Obviously, although the tropes are repeatedly used, the materials presented through them differ from case to case.

QUIXOTIC FORMULATION OF POSITIONS

It is standard form for ANT to ground its argument as a response to and resolution of a proposed misapprehension, mistake, limitation or error committed by some other research tradition. In what is now almost a ritual, one finds the ANT rendition of the Sermon on the Mount. "You have heard it said....but I say unto you...." However, what we are supposed to have heard or have been taught before usually turns out to be more a figment of ANT's imagination than a description of some actual position or claim. Callon, for example, starts from the quandary which Gerald Faulhaber and William Baumö (1988) (henceforth F&B) are supposed to be in as a consequence of their study of the innovativeness of Economics. This quandary is said to be how to account for the fact that Economics has not been all that successful at generating innovation either in terms of outcome or of process. As F&B say, the results are "mixed" at best; which is hardly surprising since most academic economists don't think that innovation, and particularly business innovation, is what they should be doing and don't therefore portray their work as having such potential.

Now, even if F&B are puzzled by the relative lack of interest in and application of the results of research in Economics, it is hard to see how their position could be described as a quandary. Much less is it clear how their matter of fact summary of their findings and their understated account of their conclusions could be regarded as being "tormented" (as Callon suggests). Certainly, F&B do not appear, first, to think that they are responsible for putting Economics to rights and, second, if such was their task, they show no sign of how they propose to do it. The only thing we can conclude is that Callon needs to turn their conclusions into a quandary, a problem, a challenge, a deeply puzzling state of affairs, because he wants to be able to assert that they do not understand their own results, *and he does*. On his account, the failure to understand their own results is what generates the quandary. It is also what enables him to propose his resolution.

The root of their misapprehension (or error if you prefer) is what Callon takes to be F&B's old-fashioned and limited linear model of innovation. Even then, elaborating an alternative, iterative model of innovation would not be enough to put things right. This is because Callon's F&B are also stymied by an epistemological dilemma. F&B say that they are surprised by their findings because they chose innovations which would improve the capacity of economic agents to succeed in the market. Callon turns this into "innovations that markets and agents should have invented and would eventually have invented on their own" (p. 313). Callon's rendering is an interesting gloss on what F&B actually say, namely that markets get it right most of the time (eventually). Getting it right eventually is manifestly not the same as inventing the breakthroughs that economists might have made. All that it can possibly mean is that markets solve problems, eventually, and produce an outcome that is (more or less the same) as that which would have derived from Economists' innovations had they made them.¹⁴

From here (though the point is made a few moments earlier to provide the context for the supposed quandry), it is but a short step for Callon to claim that if such innovations were to succeed, this would mean that economists would be capable of changing the behaviour of economic actors "from a distance". Further, since Economics is just like Physics, there would be nothing to stop anyone claiming that through their theories, physicists similarly can alter the laws governing planetary motion. This suggested inference, of

¹⁴ It was Linblom & Cohen (1979) who pointed out that most policy oriented research simply fails to appreciate the extent to which social problems either solve themselves or cease to be important enough to warrant solving.

course, trades upon an ambiguity in the notion of 'laws'; laws as the summary statements enunciated and laws as the patterns of activity which conform to the enunciated laws. However, while Physics can and occasionally does re-state the relevant laws, physicists have not (as yet) found ways to re-engineer the general pattern of planetary motion. Having reached his conclusion, Callon throws up his hands; surely claims to be able to change the laws of nature or the market are anathema in both Physics and Economics? A puzzle has been inflated into a quandary and from there into an epistemological infraction of the first magnitude.

Of course, the reason for all this is to allow Callon to roll out ANT as re-assurance for the economists. ANT does think that when their ideas are taken up and used in practice, physicists can change planetary motion and economists can act to change economic behaviour from a distance. The rest of *What does it mean...?* tries to show us why and how.

Close examination reveals two strategies generating this windmill for ANT to tilt at. The first which we have already described, consists in *gradual position morphing*. An argument, stance, outcome is moulded so that it can be subjected to the ANT treatment. In F&B's case, an interesting semi-professional puzzle as to why the results of economic research are not taken up in business, becomes a prototypical exercise in erroneous economic history, then an avoidance of the supposed implications of their analysis, and finally a manifestly self-refuting exercise in epistemology. Had F&B had the insight, foresight, courage to adopt the ANT point of view, all these troubles would just evaporate.

The second strategy is interwoven with the first and consists in *contentious comparison*. On this occasion, it is the comparison of Economics with Physics. Elsewhere in the paper, other equally contentious comparisons abound. This comparison is first introduced as an implication of the F&B puzzle about the take up of research in Economics and the predominance of the view that economists are describers of patterns of economic relations not innovators in business practice. Since physicists might also refer to themselves as describers, Callon feels free to ask that if the supposition that economists can intervene in the market is accepted, "Wouldn't this be tantamount to claiming that physics and physicists are able to influence the laws governing the course of the planets?" (p313). So we have the tendentious identification of a social science (Economics) with a natural science (Physics) simply on the basis of what each might say about its attitude to its phenomena (that is, that they are describers). No attempt is made to indicate just how and why the phenomena under study in these disciplines can and should be treated as being isomorphic. That one is *social* and the other *natural*, is reduced to a matter of mere labelling. It marks no real difference (or at least, if it does mark a difference that F&B might see as significant, that difference is not even acknowledged, let alone respected). Developing ingenious applications of the 'laws' of Economics does not change those 'laws'. All that happens is that, rather like Engineering does for Physics, the phenomena to which the laws apply are re-arranged somewhat. Of course, for ANT, that difference does indeed mark no difference. As Callon asserts later (p 315), it is his thesis that the natural, life, and social sciences all "contribute toward enacting the realities they describe". This pronouncement is licensed by wholesale identification of the disciplines. But why F&B should be burdened with ANT's categorisations is left completely unargued.

Of course, as soon as one begins to ask about the degree of isomorphism, the rug is pulled from under both strategies. What does "distance" mean in each case, for example? In Physics, action at a physical distance (that is without apparent causal intermediation) remains a troubling puzzle. For Economics, it is social distance between specialisms in the division of labour. However, for all the social sciences, premised as they are on *interpretive social action*, it is quite reasonable to say that behaviour can be changed across *social distance*, and frequently is; for example by policy makers, managers and others in authority. Second, the behaviour of material things is affected through the implicit or explicit use of the laws of Physics, not by changing those laws. When Physicists change their minds about how to frame their laws they do not thereby themselves physically alter the phenomena which the laws are designed to describe. Re-framing the law of gravity does not manipulate the relations between planets.

METHODOLOGICAL MONOMANIA

The analytic disciplines, be they scientific or social scientific, take their departure from what Alfred Schütz called "the play of possibilities". No matter how elaborated and detailed, no single description of any phenomenon can capture everything which can possibly be said about it. Each analytic discipline takes up a particular array of ways of constituting phenomena in order to explore just how that constitution could provide for such a description. The constitution of phenomena is facilitated by the relevance structures which the analytic discipline brings to bear. It is their differing relevance structures (and the constitution of phenomena that is derived from them) which accounts for the difference between Economics and Physics, for example. For social sciences such as Economics, the cornerstone of the structure of relevance is *social action*; that is action oriented to others and based upon interpretation of meaning. For Physics, the cornerstone is the constitution of matter based upon causal conjunction. Across the social sciences, there are very different ways in which questions concerning social action are themselves constituted and pursued. These are expressed in the various forms of Sociology, Politics and Economics encompassed within those disciplines. For ANT, however, there is just one single master question which all social science disciplines should pursue, namely the exhaustive description of the circumstances which make social action possible. Even where the disciplines *say* they are interested in other issues and problems, ANT insists that they *must* answer its master question. Not surprisingly, most disciplines fall short of having an account of the circumstances of social action which meets with ANT approval.

F&B set out to ask about the take up of innovation in economic research. They wonder why it doesn't happen very much. For Callon, the only possible way of responding to this is to re-state the question as a request for the delineation of *all* the circumstances which would need to be in place for such take up to be possible. Such circumstances must be defined to include the individuals concerned, the social and economic arrangements that are in place, the policy frameworks that govern them, and the material conditions through and under which they operate. This, and only this, counts as a description of innovation (or, perhaps, the lack of innovation) as social action. All of the participants in the social, economic, policy and material environment are *actants* whose contribution to the action must be described and the causal stories told of how their contributions enabled, facilitated, or performed the action. This is analytic monomania. ANT has the hammer of *performative agencements* and everything and everyone is to be treated as performative *enacting* nails.

We have already glimpsed this monomania in the treatment of F&B's research and the transformation of the question they were interested in. It is equally clearly on view in Callon's account of the Norwegian fishermen (pp 336-8). Here what could be a perfectly normal narrative of how a group of fishermen came to understand and take advantage of a policy change in EU regulations by changing their methods of fish farming, is rewritten, first, as the "ontological mutation" of fish into "cyborg fish" and, second, the transformation of fishermen into *economic men* as modelled by Economics. No other account will do. Both fish and fishermen (among others) must be seen as actants in the *agencement* that resulted.

SURREPTITIOUS POSITIVISM.

The monomania we have just described is but one symptom of the way ANT reproduces some of the preconceptions and problematics of positivism. Another is the fascination with the problem of representation and the consequent commitment to a singular, universal descriptive format. Only when we have provided an exhaustive description of the material and other conditions of the *agencement* will we have a secure way of hooking our representation onto reality. This may not be quite the reductionism and assumption of a unity of method of the Logical Positivists (not even Callon manages to say that everything can be reduced to descriptions given by Physics or that only experiments and quasi-experiments yield valid descriptions) but nonetheless it is built around the core positivistic conundrum of how to secure the veracity of descriptions. If descriptions are relative to context, what secures their truth? And what prevents just any description from being as good as any other? In trying to answer that conundrum, Callon confuses the notion of description as

an achievement and description as the name of a form of utterance. Not all descriptions are rivals and whether one description is better than another will depend on what the description is to be used for and when. It follows that no description, not even the exhaustive description of the conditions of the *agencement*, can offer the last word, the complete account of some social phenomenon.

In place of positivism's reductionism and unity of method, we get performativity secured by a tacit constancy hypothesis. Those descriptions which lay out the performativity of a practice (be it Physics, Economics or fishing) are the ones which have fixed the linkage between how things are (ontological reality in ANT speak) and the practical reasoning being carried on in Physics, Economics or fishing. Thus translation into the terms of performativity provides a unified description of reality. The world is many ways, but there is just one way to describe it; positivism in a nutshell.

ARGUMENT THROUGH FORCED AND FALSE DICHOTOMIES

The core thesis offered in support of the performativity of Economics is a distinction which Callon makes between what he calls "confined economists" and "economists in the Wild" (the latter term being an unacknowledged borrowing from Ed Hutchins' (1995) programmatic approach to the study of distributed cognition). Confined economists are academic economists who research and teach the professional academic discipline of Economics. Economists in the wild are those who investigate and theorise economic activity as part of the work they do as participants in the economy.¹⁵ In *What do we Mean....?*, Economics is taken to be market, and particularly financial market, behaviour. Those people who organise supply of goods and services, set prices or regulate, record and administer economic transactions are among Callon's economic *actants*. Those who go shopping, pay their pension contributions and so on are all ignored. The leading example of economists in the wild are the Chartists; that cadre of investment analysts who track the moment by moment movements of financial assets and instruments and make their investment decisions upon the trends that emerge from such data. However, Callon insists anyone who offers an account, an explanation, a prediction of what some set of markets might do qualifies as an economist in the wild. The Economics they do is vernacular economics. Economics, then, comes in two flavours: professional and vernacular. How these two relate is left unexplained.

On just what is this dichotomy built? Obviously no-one will deny that there is a difference between the formal or quasi-formal explanations of economic phenomena offered by professional Economics and the explanations to be found in the professional practice of any other occupation. One set is derived from very specific (if much argued over) formal premises about rational choice, value and markets. The other derives either from post hoc rationalisations or commonsense theories about the way the economy works. In principle, as a working theory neither is better or worse, though neither will work very well as a theory in the domain(s) of the other (as F&B demonstrated). But a difference is not automatically a dichotomy. Certainly the practical reasoning that goes on in both sets of Economics is not directed either to achieving a common outcome or departing from common assumptions. Of course economists and practical people engaged in trying get something done (make money from the financial markets, re-frame commodity price structures, manage resources) both talk about economic activity, but they do different kinds of things based upon what they say (write books and papers or make investments and policies). Setting these up in contradistinction forces the putative difference into a dichotomy and predisposes the line of thinking that somehow they are 'really' just the same. Once we get to that point, it is no step at all to stipulate that "Economics" should be expanded to include both these very different forms. This, in turn, licenses the bald claim that "Economics contributes to the construction of the reality it describes". But of course, the "Economics" that claim covers is *both* professional and vernacular economics. The version which is doing the reality constructing through interventions based on its theories, is of course the latter. The baldness of the claim (and its point, presumably) is that it appears to apply equally to the former. Since no analytic grounds are offered for proposing the unification of this dichotomy of

¹⁵ Where economists in Government fit in all this, we are not sure.

theorisations, we are left to conclude its basis is rhetorical. Setting up the dichotomy is meant to challenge conventional professional Economics and its resolution allows ANT to show how radical that challenge is.

Of course, if, as in this case, the dichotomy is clearly forced and false, and based in a stipulation, no matter how radical the proposal, it solves nothing.

CONCEPTUAL MISTREATMENT

If concepts had the equivalent of the UN Convention of Human Rights, then ANT would be very vulnerable to prosecution for gratuitous mistreatment, especially of concepts associated with domains far from those which it is usually associated with. In *What do we mean...?* the most conspicuous examples of conceptual maltreatment are found in the discussions of "the pragmatic" and "semiotic" turns in social science, and Robert Merton's concept "the self fulfilling prophecy".

In the first case, 'pragmatic' and 'semiotic' are used to describe bundles of concepts which depend upon a notion of performativity. Performativity is a way of resolving "the paradox" that language can be used both to describe the world and to perform (social) actions in the world. This contrast is, of course, as forced and false as that between the types of Economics discussed above. The path Callon takes out of the paradox skates over the philosophical curriculum of ancient Greece¹⁶ and Port Royale Logic to the introduction of pragmatics in Linguistics. The latter is construed as being concerned with the context of language use rather than its formal structures. The conclusion Callon derives from this tour is that we can adopt either a minimalist position and sit pragmatics alongside syntax and semantics as mutually exclusive but complementary accounts of language, or a maximalist position "and argue that nothing in linguistic phenomena can escape pragmatics" (p 317). Why we must be driven to this particular (dichotomous, of course) choice is not explained.

Into this somewhat odd construal of the history of language studies, Callon throws John Austin and his notion of "performative utterances" (Austin 1962). This is the bridge from the original paradox, and its consequential dichotomous form, to performativity. Austin is held to demonstrate "that only the maximalist position is defensible". Quite what Austin might have said about this suggestion we can only guess. It is true that Austin did talk about performative utterances, and it is also true that, in his own unique way, he compared his interest in language use as akin to botany; that is the classification of types of such utterances. His point, though, was, first, to make clear to philosophers that language use was not just representational (i.e. comprised of statements (true or false) describing states of affairs). Language was equally about action; doing things with words, as he put it. Second, just as there are felicity conditions for the truthfulness of statements, there are felicity conditions for the effectiveness of performatives. Austin was as interested in squibs, misfires and other mishaps as he was in what might be thought of as correct performance. What he did not imply, and would probably blanch at being thought that he would imply, is the suggestion that for constative utterances "the object is in the outside world", whilst performative utterances "cause the reality that they describe to exist" (p. 317), not least because the point about 'performatives' for Austin was that they didn't describe. They just perform the action they nominate. Austin was more than a little chary of any discussion that invoked "reality" in this globalised way.¹⁷ The forcing of language to be both inside and outside "the world" as a preface to claiming that Austin came to the conclusion "there is no language; there are only acts of language" (p 318) is a complete mangling of the concept of performative utterance. It appears to be needed simply so that it can be used to resolve the outside/inside choice by the abolishing the (false) distinction on which it is based.

¹⁶ Interestingly missing out Grammar from the discussion of Logic and Rhetoric. Should we see this as what Callon himself would undoubtedly call a motivated absence?

¹⁷ In setting the distinction up in this way, Callon scrambles it. Because performatives do *not* describe anything, he has actually re-defined them as constatives.

If this does not amount to gross mistreatment of a concept, it is hard to see what would. And if that is not enough to warrant this judgement, hooking Austin, by implication, to the claim that "Scientific theories, models and statements are not constative; they are performative, that is, actively engaged in the constitution of the reality they describe" certainly is. In saying "I name this ship Britannia" or "Dissolve baking powder in vinegar", one is certainly doing things with words; naming a ship or suggesting some kitchen chemistry. What Austin would not have ever wanted to say is that what they were doing was constituting reality, not least because whilst one does successfully name the ship, the other does dissolve anything in anything. Austin subsequently did treat all sorts of linguistic doings as doing social actions, but this was not to show the linguistic constitution of reality but to specify the different forces which utterances can have. Austin had nothing against 'constatives' as such, only against philosophers' traditional and exclusive preoccupation with them to the exclusion of other linguistic forms such as performatives. He did not try to insist that all utterances are 'performatives' rather than 'constatives' but, when he expanded on the idea of performatives, took the view that constative utterances also have performative force. Whatever else performative utterances might do for the notion of performativity (which is not much, we should think), they do not provide a bridge from language use to ANT's predilection for metaphysics.

If the treatment handed out to performative utterances is unfair, that handed to the notion of self fulfilling prophecy is even worse. The term (and its twin, the self defeating or "suicidal" prophecy) has its origin in Robert Merton's classic essay (Merton 1948) and W.I. Thomas' apothegm "If men define situations as real, they are real in their consequences". Although Merton illustrates the concept with the example of a run on a bank, the vast bulk of his essay is given over to an examination and explanation of the persistence of ethnic and racial prejudice in the USA. This is held to be the process of "moral alchemy" whereby "in-group virtues" of the dominant group in society "become outgroup vices" (p. 198). Here is an exemplary summary of what Merton means by this.

Thus, if the dominant in-group believes that Negroes are inferior, and sees to it that funds for education are not "wasted on these incompetents" and then proclaims as final evidence of this inferiority that Negroes have proportionately "only" one-fifth as many college graduates as whites, one can scarcely be amazed by this transparent bit of social legerdemain. Having seen the rabbit carefully though not too adroitly placed in the hat, we can only look askance at the triumphant air with which it is finally produced. (In fact, it is a little embarrassing to note that a larger proportion of Negro than of white high school graduates go on to college; obviously, the Negroes who are hardy enough to scale the high walls of discrimination represent an even more highly selected group than the run-of-the-high-school white population. (Merton 1948 p 200)

Compare this to the summary of Callon gives of a self fulfilling prophecy explanation of the way economic theory works to produce that which it predicts.

Those who support the thesis of the self-fulfilling prophecy.....explain that if an economic model or formula can act as a convention (by nature arbitrary), it is because its object is human beings, whose actions and behaviours depend entirely on their beliefs and the meanings that they attribute to the social world surrounding them. (Callon Op. Cit. p 322)

A little later, this becomes:

Whereas the notion of self fulfilling prophecy explains success or failure in terms of beliefs only, that of performativity goes beyond human minds and deploys all the materialities comprising the sociotechnical agencements that constitute the world in which these agents are plunged... (Op. Cit. p 323)

What, for Merton, was a process whereby attitudes and beliefs were expressed through institutionalised patterns of action such as the deployment of resources, the organisation of schools, the quality of housing available to different groups etc etc is now caricatured as a statement about beliefs alone. The subtle working through of courses of action and *their* consequences is turned into a crude (and bizarre) strawman for ANT and performativity to tilt at. For Merton (and others who have used the notion of self fulfilling prophecy to describe the inertia of certain kinds of institutionalised behaviour as well as the crowd psychology that produces runs on banks), it is precisely that the beliefs by themselves are *not* enough. For the belief to be real in its consequences it needs the institutional arrangements to be in place: the positive gearing of loans to deposits; the low ratio of cash to assets; as well as the physical properties of cash management. They know that a run on the bank can only occur with these in place. But these do not trigger the run; and it is what triggers the run and reinforces it which is of interest to them. Once again, ANT's monomania comes to the fore.

TONE DEAFNESS AND COLOUR BLINDNESS

Given what we have just said, you would be forgiven for thinking ANT is tone deaf and colour blind to analytic differences and nuances. And you would be right. But the insensitivity to the subtleties of ordinary social life is probably even more telling and important. The misconstrual of other people's concepts and theories is as nothing to the re-working of ordinary experience and its casting into ANT jargon. In *What does it mean...?* Callon accomplishes the extraordinary trick of managing to do both at the same time. The prime example of this is to be found on pp 328 - 330 where Erving Goffman's (1969) dramaturgy is used as the departure point for an account of embodied interaction and then the failure of research in Economics to be taken up by business and commerce.

Callon begins with a quotation from Annemarie Mol which asserts that Goffman's *Presentation of Self* proposes that "(people) present not so much themselves but a self, a persona, a mask. They act as if they were on stage. They perform." Building on this, Callon says:

"We thus dissociate that which happens backstage and concerns psychology from that which happens frontstage and concerns sociology - the personal identity on the one hand and the public identity on the other."
(pp 328-9)¹⁸

Now Goffman was a racy writer and *Presentation* is full of colourful descriptions, quotations and examples. But he was also a careful thinker and an equally careful observer of social life with *his sociologising* certainly including what goes on 'off stage', much of that being understood in terms of its functions for maintaining the features of the public performance. What *Presentation* sets out to do is to explore the notion of role as a *metaphor* using conceptual props drawn from drama. He is not saying that people behave *as if* they were teachers, doctors, engineers, academics, mothers or whatever. They are those things. Of course, once we are sensitised by concepts drawn from drama we can, as Goffman does, provide startling and insightful descriptions of the social organisation of face to face interaction. Instead of just focusing on the performance centre stage, we can notice all of the backstage work together with the props and other materials that support it, the ways the effects are produced and the repertoire of skills the actors can draw on to be convincing. The

¹⁸ En passant, another conceptual scrambling. Goffman's interest was sociological. He investigated the social organisation of both front and back stage. Thus to allocate personal identity to Psychology and public identity to Sociology is just what Goffman would not and did not do!

reality of the performance and how we are convinced (taken in) by it can be *construed* as the result of dramaturgical work. None of this says anything about how "in reality" social life must be nor that it is an endless game of charades. Neither does it commit us to the ontological demarcation of what in this game is psychological (in the head?) and what is not.¹⁹ The multiplicity of metaphors that Goffman applied to the interaction order indicates that he was not searching for a single correct description but was viewing that phenomenon from different angles so see what features they made visible.

The insensitivity does not stop there. Following Mol's lead, Callon rejects any account of identity (who we are in any encounter) which does not place equal (?) emphasis both on social and psychological features *and* on the *materialities* of the "sociotechnical *agencement*". Only such an account secures the reality given in the description. Once again we have the monomania of singular description. Goffman is to be dismissed first because he is thought to be arguing that identity is fixed by performance; and second because he was not providing ANT's dualistic account of what actually does fix identity. The latter is true but unfair; the former just plain wrong.

Even the most superficial reading of Goffman would show the deep concern he has with the ways that social actors can be described as endlessly producing and re-producing their array of complementary and discordant roles; and that they do that as much in circumstances thrust upon them as by the free rein of their own choice. What Goffman is interested in and sensitises us to is the repertoire of skills we as ordinary actors all have in continuously and relatively seamlessly moving through our social lives. For him, (and for us all, we would argue) our experience of ordinary social life cannot be reduced to the "constant struggle" that Callon tells us it is or must be (Callon p 329). Moreover, even though we find the social world is ordinarily experienced as a smooth flow of action, we know, and Goffman's analyses are exquisite, that sometimes things don't fit. We just get it wrong, or do things that are out of place, or misread situations, or whatever. We know that without the surrounding circumstances in place, some activities simply can't happen. To understand the mosaic of daily life, either as ordinary actors or as sociologists, we don't need talk about the materialities of sociotechnical agencements. Adopting this vocabulary adds nothing to and takes nothing away from the insights which Goffman and others have given us concerning the institutional and interactional character of daily life. All it does do is totally obscure them behind a cumbersome and superfluous jargon.

REPACKAGING AS REVOLUTION

It is not unusual in Sociology for the proponents of novel approaches to want to draw a sharp dividing line between what they propose and that which has gone before. However, the scorched earth policy which ANT takes to all previous sociological thinking (and the other social sciences more generally) makes one want to ask not so much what has been immolated, as what has been put in its place? If we give up on all that has gone before, what do we get? In our view, very little; or rather very little that we really didn't have before. The central motif of ANT and performativity turns out to be a re-visiting of the age old issue of individualism and the ascription of actions to individuals. Moreover, in *What do we mean....*, the treatment of this question, once it is stripped of the carapace of jargon, turns out to be a series of very familiar and somewhat tired moves whilst the stalking horse for the account of individual action is that old chestnut, the inadequacy of *Homo Economicus* as an explanation of social action.

The individualism which Callon targets is one which conceives the individual as bereft of all relational characteristics, not to mention all social relations; one which sociologists can easily be persuaded must be wrong because people have both those characteristics and those relationships. In that respect, Callon's argument about Economics initially follows a standard sociological form. The economic actor, *Homo Economicus*, is misconceived because it is such a denuded portrayal that we cannot imagine anyone of whom it would be an accurate picture. However, as Callon deploys it, the advantage of performativity is that this

¹⁹ We touch on the issue of description and sociological re-description later in this essay .

objection can be moderated somewhat. It is sometimes possible for economists to produce conditions under which people are actually begin to resemble these models. Since such conditions might brought about by people conforming to the precepts of the theory or model, economists could be said to be making their models true by realising them in actuality.

More than 60 years ago, Gilbert Ryle (1954) pointed out the widespread confusions that exist over the nature of *Homo Economicus*. One of them is the stock sociological complaint about its inadequacy. The premise of the complaint is Economics and Sociology offer rival descriptions of one and the same individual; descriptions which are in conflict. The description provided by Economics gives a very different portrayal of the individual from that of Sociology. It seems that we cannot hold both. One must be sacrificed for the other. Thus the denuded one must be replaced by the 'fuller', more 'complete, even more 'realistic' description' that Sociology gives.

The delusion that these two descriptions are rivals is almost entirely due to the supposition that they are each descriptions of the same individual. But as Ryle points out, economic theory says nothing about particular individuals. It does not identify them or detail their attributes. It does not, for example provide descriptions of Ryle's brother in anything like the way that Ryle himself might —invoking such as listing his brother's age, occupation, residence, baldness and so on. The generalities of Economics cover, or apply to, Ryle's brother (and everyone else) in certain respects only. It has no need of or use for the sort of information about Ryle's brother that the police, say, might see as relevant to their very different purposes. Critics of *Homo Economicus* might think that they are being critical of a scientific simplification, but in many ways their very production of the problem is itself the product of the retention of the same suppositions; namely, that science is a kind of master scheme to which all forms of description must be reconciled and reduced.

Against the dogma of the master scheme, Ryle suggests two strands of argument. He argues, first, that this is to read the contents of scientific works as if they were exclusive; as if, that is, their failure to mention things involved a denial that those things exist. For Ryle, scientific schemes might better be understood as inclusive in that they do not feel the need to mention all the innumerable things to which they might rightly be applied. Absence of a mention of certain characteristics says nothing about the possession of those characteristics in actual cases, only about their irrelevance to the (scientific or economic) purpose in hand. Because of the way it has resolved the problematic possibilities of scientific description, Physics has nothing to say about the coroner's classification of a falling human body, but only about its rate of acceleration, the speed at which it will arrive on the ground and the force that will be delivered by the crash. It makes no difference to Physics whether the body fell, was pushed or jumped. It will accommodate all kinds of motion regardless of how they came about.

For Ryle, it follows that *Homo Economicus* is not an exhaustive view of the characteristics of individuals. If it were, it would be obviously false. Should economists be trying to promote such a position, one could only wonder how they imagine anyone would accept a view insists for example, that individuals have no families, friends, loyalties, politics, etc. However, since Economics is only interested in individuals insofar as they are engaged in what Ryle terms 'marketing behaviour', buying and selling things, characteristics not specifically implicated in those activities are simply irrelevant to the economist's central interests.

Of course, care is needed here. Someone, a child, for instance, can instantiate the economist's basic model by deciding whether to spend the whole of their pocket money on ice cream or to save some to buy a comic later. We do not have to import model based decision programs into the commercial and financial world for the description to be convincing. The framing of this instance is enough. The child does not need to buy food, clothing and other items since it will doubtless have these bought for it. The priority of ice cream and comics have to do with the child's tender age. Characteristics like the age of the child do not particularly matter to the economist, and insofar as they do, they are simply the givens of the situation in which the economist is

interested, namely the optimal satisfying of preferences in the context of limited resources. The interest is in finding a general solution to the problem of how anyone can trade off utilities in arriving at a purchasing decision. The only factors which matter in our case are the preferences for ice cream and comics, the price of these and the amount of the pocket money. It does not matter how the preferences were acquired, how the level of pocket money is determined, and so on. The economist doesn't care, either, about the moral quality of those preferences, which, again, does not deny that they may differ significantly. Of course, we can accept there are determinate answers to such questions. It is just not the job of economic models of rational decisions to answer them.

It would seem, then, that far from being quite unprecedented for someone to satisfy the economists' model, it happens almost everywhere. Notwithstanding whether the model is actually useful, it appears that it is complied with every time someone makes a decision about how to deploy limited resources to satisfy their preferences. There is no need to construe the model as portraying individuals as universal and relentless maximisers simply because it applies when and insofar as they are engaged in 'marketing behaviour'. The preferences which can be realised through marketing may be few, and certainly are not necessarily the most important that people may have. It is, then, simply a misunderstanding to suggest that the model of economic rationalisation used by neoclassical Economics is bidding for Sociology's territory. Equally, it would be just as great a misunderstanding to suppose as, as some have done, that simply because rational decision models can be used to describe some aspects of some examples of social behaviour, they offer a universal model for the sociological description of social action. Construing all social life as the application of maximising strategies for choosing over preference hierarchies is just one-eyed.

ANT's second theme, namely the ascription of actions or individuation of action, is related to the issue of description and explanation. As with the rest of ANT, Callon insists that the only adequate explanation of social phenomena is to conceive them distributed networks of actants. This is a counter-individualist position in that, at least on Callon's conception of it, individualism must attempt to treat the doings of actors (and it is really *all* about actors, not the other kinds of actants involved in the doings of actors) as if they were entirely free (for want of a better word) of 'external' dependencies. We have just shown that, for even the most elementary of economic models, this supposition is false. Callon's efforts to counter individualist accounts of action provides nothing new at all to Sociology. In fact, all ANT does, and then in a clumsy and indiscriminating way, is address Sociology's central problem, namely the individuation of action. Callon asks: what is the source of the action? Rather than initiating some new and radical strategies for sociologists, what we get a rather poorly formed version of an old question. In response to Callon, one wants to ask: whose action are we are talking about? After all, it is not as if we can identify an action independently of determining who is undertaking it. Whether we can or need to ask about the source of an action depends very much upon how we identify the action in the first place. Callon offers 'piloting' as an illustrative example. If we are asking in a general way about who is piloting a plane, we can answer variously with 'the aircrew', 'the pilot', 'the co-pilot', 'the autopilot' or, if all four engines abruptly cut out at thirty thousand feet, 'no one'.

For Callon, this would be inadequate as a basis for a sociological description because it leaves out the *sociotechnical agencement*, the surrounding panoply of material, social and other conditions. This is surely just as misguided as his account of Economics is. The fact that things don't get mentioned is taken as tantamount to denying them, whereas many things are not mentioned because they are simply presupposed for the purpose of giving a description. Callon's example of 'piloting' presupposes that it is aircraft and not ships which are being piloted. It also presupposes readers' familiarity with the piloting aircraft e.g. that a pilot is dependent on a vehicle to pilot, does not carry out keeping the aircraft in the air by personally providing the energy for lift, controls its movements through the use of an instrument panel and not through direct mind-emanating contact with each of the 747's over 6 million parts to keep them flying in formation, and so on). Callon's question belongs to that class of sociological questions which seem as if they are challenging us to rethink our

usual conceptions when, in reality, they indispensably presuppose those very conceptions. Everyone knows flying large commercial passenger aircraft is very much an organised activity. It involves all sorts of complex dependencies, teamwork and so forth (unlike, say, flying a microlite). But the fact that the pilot's work is assisted does not imply for one moment that one cannot (a) determine what part in the interdependent and collaborative activities involved in the flying of modern commercial jets is played specifically by the pilot; nor (b) that one cannot construct a model of the pilot's decision making without having to supply the wiring diagram for the many miles of cable that run through a modern aircraft.

Two further muddles which follow from the above can now be brought out. Collective and individual action are not a contrast pair. The fact that there are collective achievements does not militate against the individuation of the contributions to such collective achievements. Thus, the fact that the army is victorious does not prevent identification of someone's contribution to the victory through the feeding of the combat troops, nor as the piloting example suggests, of treating some contributions as more directly related or more crucial to the collective result.

Second, we have insisted that the request for an ascription of an action is often provided by the specification of that action. If one wants to model the pilot's decision making then the question must be how to specify the pilot's doings (which can feature the questions 'what is the pilot doing *as opposed to the co-pilot?*' 'what is the pilot doing *as opposed to what is done automatically by the control systems?*' and so on). Answers to these questions will provide input for a model of the pilot's decision making (since, after all, they will determine how much and which parts of the pilot's doings are actually decision making). The pilot isn't making decisions about the route and direction of the flight but is carrying out the scheduling requirements of airlines and airports as stated in the flight plan. The pilot isn't choosing directions and headings, he is under the direction of air traffic control systems and so on. An understanding of these clearly would provide assumptions for modelling the decisions that airline pilots actually make,

CONCLUSION - THE IRONY OF PERFORMATIVITY

The central tenet of ANT is that conventional Sociology (though actually the real target is the Sociology of Scientific Knowledge) is committed to an ontology which privileges the social above all else. And, to be fair, within Sociology generally, and certainly that particular sub-thread, the tendency to descriptive hierarchism is pretty rife. However, surely the most effective way of countering this tendency would be a firmer and clearer constitution of the distinctiveness of Sociology not an insistence that all previous accounts must be thrown over in favour of a new version which has to be amalgamated with those of other disciplines?

For ANT, the commitment to the explanatory priority of the social, means that Sociology creates a world, an ontological structure, which is blind to the contribution the non-social makes to the genesis and shaping of social action. Conventional Sociology's world is held to be both partial and distorting. It is, therefore, deeply ironic to find that, in all its accounts of how conventional Sociology should be superseded, we are presented with are themselves partial and distorted versions of hackneyed issues. As we have seen with *What does it mean...?* ANT proceeds by creating a motley of imaginary targets, cyclopean epistemologies, forced dichotomies, mashed concepts, bizarre accounts of ordinary experience, and ill informed re-workings of old issues. These constitute the world in which performativity is to be located, explained and justified.

Having set out to confront what it saw as distortion, ANT ends in a characterisation of social life and social action which is nothing but a weak parody of just the kinds of accounts it wants to overthrow. Not only does performativity provide us with an underpowered version of familiar Sociology, when stripped of jargon the supposed insights and explanations are trite. Sociology has always been interested in the ways "Men make history, but in circumstances thrust upon them" (as Marx and Engels put it). Generations of sociologists have toiled to elucidate just how and when and where and under what circumstances. ANT's vocabulary of *actant*,

agencement and the like adds nothing but obfuscation to this tradition. In the end, as a contribution to Sociology, Actor Network Theory is deeply uninteresting.