

Actor-network theory (ANT) is a theoretical and methodological approach to social theory where everything in the social and natural worlds exists in constantly shifting networks of relationship.

Initially created in an attempt to understand processes of innovation and knowledge-creation in science and technology, the approach drew on existing work in STS , on studies of large technological systems , and on a range of French intellectual resources including the semiotics of Algirdas Julien Greimas , the writing of philosopher Michel Serres , and the Annales School of history. ANT appears to reflect many of the preoccupations of French post-structuralism , and in particular a concern with non-foundational and multiple material-semiotic relations. At the same time, it was much more firmly embedded in English-language academic traditions than most post-structuralist-influenced approaches. Its grounding in predominantly English science and technology studies was reflected in an intense commitment to the development of theory through qualitative empirical case-studies. Its links with largely US-originated work on large technical systems were reflected in its willingness to analyse large scale technological developments in an even-handed manner to include political, organizational, legal, technical and scientific factors. It was picked up and developed by authors in parts of organizational analysis, informatics, health studies, geography, sociology, anthropology, feminist studies, technical communication [7] [8] and economics. In part because of its popularity, it is interpreted and used in a wide range of alternative and sometimes incompatible ways. There is no orthodoxy in current ANT, and different authors use the approach in substantially different ways. As Latour notes, [12] "explanation does not follow from description; it is description taken that much further. The approach is related to other versions of material-semiotics notably the work of philosophers Gilles Deleuze , Michel Foucault , and feminist scholar Donna Haraway. It can also be seen as a way of being faithful to the insights of ethnomethodology and its detailed descriptions of how common activities, habits and procedures sustain themselves. Similarities between ANT and symbolic interactionist approaches such as the newer forms of grounded theory like situational analysis , exist, [13] although Latour [14] objects to such a comparison. Although ANT is mostly associated with studies of science and technology and with the sociology of science, it has been making steady progress in other fields of sociology as well. ANT is adamantly empirical, and as such yields useful insights and tools for sociological inquiry in general. ANT has been deployed in studies of identity and subjectivity, urban transportation systems, and passion and addiction. The term "network" is somewhat problematic in that as Latour [11] [12] [17] notes, it has a number of unwanted connotations. Firstly, it implies that what is described takes the shape of a network, which is not necessarily the case. Secondly, it implies "transportation without deformation," which, in ANT, is not possible since any actor-network involves a vast number of translations. Actor-network theory tries to explain how material-semiotic networks come together to act as a whole; the clusters of actors involved in creating meaning are both material and semiotic. As a part of this it may look at explicit strategies for relating different elements together into a network so that they form an apparently coherent whole. These networks are potentially transient, existing in a constant making and re-making. They also assume that networks of relations are not intrinsically coherent, and may indeed contain conflicts. Social relations, in other words, are only ever in process, and must be performed continuously. Actants denote human and non-human actors, and in a network take the shape that they do by virtue of their relations with one another. It assumes that nothing lies outside the network of relations, and as noted above, suggests that there is no difference in the ability of technology, humans, animals, or other non-humans to act and that there are only enacted alliances. As soon as an actor engages with an actor-network it too is caught up in the web of relations, and becomes part of the entelechy. If taken to its logical conclusion, then, nearly any actor can be considered merely a sum of other, smaller actors. A car is an example of a complex system. It contains many electronic and mechanical components, all of which are essentially hidden from view to the driver, who simply deals with the car as a single object. This effect is known as punctualisation, and is similar to the idea of encapsulation in object-oriented programming. When an actor network breaks down, the punctualisation effect tends to cease

as well. In the automobile example above, a non-working engine would cause the driver to become aware of the car as a collection of parts rather than just a vehicle capable of transporting them from place to place. This can also occur when elements of a network act contrarily to the network as a whole. When closed, the box is perceived simply as a box, although when it is opened all elements inside it becomes visible. Human and non-human actors[edit] ANT is often associated with the equal treatment of human and non-human actors. ANT assumes that all entities in a network can and should be described in the same terms. This is called the principle of generalized symmetry. The rationale for this is that differences between them are generated in the network of relations, and should not be presupposed. Intermediaries are entities which make no difference to some interesting state of affairs which we are studying and so can be ignored. They transport the force of some other entity more or less without transformation and so are fairly uninteresting. Mediators are entities which multiply difference and so should be the object of study. Their outputs cannot be predicted by their inputs. From an ANT point of view sociology has tended to treat too much of the world as intermediaries. In such a view the real world silk"nylon difference is irrelevant " presumably many other material differences could also, and do also, transport this class distinction. But taken as mediators these fabrics would have to be engaged with by the analyst in their specificity: For the committed ANT analyst, social things"like class distinctions in taste in the silk and nylon example, but also groups and power"must constantly be constructed or performed anew through complex engagements with complex mediators. There is no stand-alone social repertoire lying in the background to be reflected off, expressed through, or substantiated in, interactions as in an intermediary conception. Translation sociology Central to ANT is the concept of translation which is sometimes referred to as sociology of translation, in which innovators attempt to create a forum, a central network in which all the actors agree that the network is worth building and defending. In his widely debated study of how marine biologists try to restock the St Brieuc Bay in order to produce more scallops, [18] Michel Callon has defined 4 moments of translation: Also important to the notion is the role of network objects in helping to smooth out the translation process by creating equivalencies between what would otherwise be very challenging people, organizations or conditions to mesh together. Bruno Latour spoke about this particular task of objects in his work *Reassembling the Social* As the token is increasingly transmitted or passed through the network, it becomes increasingly punctualized and also increasingly reified. When the token is decreasingly transmitted, or when an actor fails to transmit the token e. Actor network theory and specific disciplines[edit] Recently, there has been a movement to introduce Actor Network Theory as an analytical tool to a range of applied disciplines outside of sociology, including nursing, public health, business Klein and Czarniawska, , library and information science Beagle, From the ANT viewpoint, design is seen as a series of features that account for a social, psychological, and economical world. ANT argues that objects are designed to shape human action and mold or influence decisions. They do not attribute intentionality and similar properties to nonhumans. Their conception of agency does not presuppose intentionality. ANT has been criticized as amoral. Wiebe Bijker has responded to this criticism by stating that the amorality of ANT is not a necessity. Moral and political positions are possible, but one must first describe the network before taking up such positions. This position has been further explored by Stuart Shapiro who contrasts ANT with the history of ecology, and argues that research decisions are moral rather than methodological, but this moral dimension has been sidelined. Rather, ANT prefers to seek out complex patterns of causality rooted in connections between actors. Accordingly, ANT can be seen as an attempt to re-introduce Whig history into science and technology studies ; like the myth of the heroic inventor , ANT can be seen as an attempt to explain successful innovators by saying only that they were successful. Likewise, for organization studies, Whittle and Spicer assert that ANT is, "ill suited to the task of developing political alternatives to the imaginaries of market managerialism. ANT"like comparable social scientific methods"requires judgement calls from the researcher as to which actors are important within a network and which are not. Other research perspectives such as social constructionism , social shaping of technology , social network theory , normalization process theory , Diffusion of Innovations theory are held to be important alternatives to ANT approaches.

Actor-network theory claims that any actor, whether person, object (including computer software, hardware, and technical standards), or organization, is equally important to a social network. As such, societal order is an effect caused by an actor network running smoothly.

I removed much of the concept-specific stuff. Added references to relevant sections and restructured the text a bit. Still, everything under other central concepts is a bit superfluous in my opinion, since the different authors connected with ANT use different concepts. Since this is the novelty of ANT and this is more of a general introduction, this probably should be a central part of the article. Sincerely, bruno latour wow €” Preceding unsigned comment added by RedHouse18] The following sentence should be struck: Rather, an actor network is always contested by other actants. An actor-network only transforms and mutates from within. Is this characterization accurate? Have to say I think you need to improve the laymans definition as it doesn;t make a word of sense to me -Seconding the comment above. This is fairly incomprehensible to an outsider and is not appropriately presented for a Wikipedia article. There are very few examples and the whole thing seems to be written in sociological jargon. It examines ANT in relation to a number of other theories. Here is the link: Ordering, Strategy, and Heterogeneity. Please take a moment to review my edit. If you have any questions, or need the bot to ignore the links, or the page altogether, please visit this simple FaQ for additional information. I made the following changes: As of February , "External links modified" talk page sections are no longer generated or monitored by InternetArchiveBot. No special action is required regarding these talk page notices, other than regular verification using the archive tool instructions below. Editors have permission to delete the "External links modified" sections if they want, but see the RfC before doing mass systematic removals. If you have discovered URLs which were erroneously considered dead by the bot, you can report them with this tool. If you found an error with any archives or the URLs themselves, you can fix them with this tool. Lead revision[edit] I am trying to clean up the lead, as it is in many ways the most important part of the article and is the first and last encounter to ANT that many people have. Please edit to make clearer, but I think it still needs some work. The hyperlinks to two lesser figures Annemarie Mol and Helen Verran rather than the key innovators on ANT as determined by factors such as the originators of the concept, as agreed on in the article itself suggests a clear example of this. If there is no specific reason for linking to these two figures as opposed to Latour, Callon, Law etc. I would suggest deleting the links. Wikipedia is not, of course apolitical, but this seems to be a type of manipulation against the spirt of Wikipedia. That there are two women linked in the see also section does not mean the article has been tagged by a feminist cabal. See also does not link to articles that are already linked, so it would be against Wikipedia guidelines to link to Latour, Callon, Law, etc.

Chapter 3 : SAGE Reference - Actor Network Theory

Summary: Actor-Network Theory is a framework and systematic way to consider the infrastructure surrounding technological achievements. Assigns agency to both human and non-human actors (e.g. artifacts).

What are its strengths and limitations as a form of sociological theory? Four nails in the coffin. These studies, as well as highlighting how ANT can be utilised during sociological analysis, will also provide a firm basis to assess the strengths and limitations of ANT as a form of sociological theory. Oxford University Press, p. Philosophical Library p. Here, the question of explaining the social order is completely disregarded and even denied; the social dimension of a phenomenon does not objectively exist a priori and therefore cannot be utilised as a starting point for research. Consequently, the sociologists of associations envisage their role not as attributors of a hidden social force or context, but simply as tracing the associations between heterogeneous entities and following their lead. By rejecting the existence of a hidden social force, actor network theorists are rejecting the imposition by the sociologist of the social of an a priori social context or framework. ANT maintains that in order to study any phenomenon, all pre-existing theories must be abandoned. In the above examples, as well as throughout their other works, Marx and Durkheim explain small individual actions by the big structures of society and therefore utilise a form of deductive explanation – a method that is almost opposite to that of Gabriel Tarde. He therefore used Latour, *Reassembling the Social*, p. Latour highlights that though the intermediary may be made up of many parts, it counts for only one. For Durkheim, different types of society are different intermediaries – a society with too much regulation leads to fatalistic suicide, a society with too much integration leads to altruistic suicide, and so on. Evidently, the input the type of society determines the output the type of suicide. Mediators, conversely, are much less, if at all, predictable; their input shows little or no correlation to their output. Consequently, though they may count for just one, they could just as equally count for many, for none or for infinity. Consequently, any actor that transforms an entity, affords, allows or enables it, is a mediator and must be examined as such. For classical sociologists, the capitalist system or theories of suicide are macro forces determining the actions of individual micro actors. This distinction between macro and micro actors is yet another point of difference between ANT and classical sociology. Underlying this distinction is the concept of a hierarchical ontology imposed by Durkheim, where all entities in the universe are ranked in terms of their importance. *Les Empecheurs de Penser en Rond*, ed. The macro actor is seen as being inherently larger in terms of size, force, scale and historical influence than the micro and therefore is awarded more attention and importance – this is especially true of structural sociologists who maintain that the macro-structural entities of society, such as religion, the state, the economy and large corporations, etc. These black boxes contain ideas and concepts which have become so naturalised and internalised that they no longer need to be scrutinised. Taken at face value, this aspect of ANT sparks much debate and radicalisation where ANT is thought to be emphasising the power of objects over humans. An actor in ANT terminology is not restricted to human beings; the only criteria given to be classed as an actor are that it must bend space around, and make other elements dependent upon itself and translate their will into a language of its own. An actor is thus measured and analysed in terms of how strong an association it can make with those entities that it is interacting with – and it is the tracing of these associations that is the fundamental tenet of ANT. The resounding ANT slogan comes back to mind: If an actor does not change anything, then there is nothing to be traced and therefore is not an actor at all. Brieuc bay shows how humans and non-humans alike form networks and associations in order to translate their will and shape their world. The protagonists of the study are three researchers who propose that it is possible to transport Japanese fish farming technology to the French bay of St. Brieuc to thwart the dwindling numbers of scallops. To enact this proposal, the researchers defined the other actors and their interests in such a way as to ensure their own role in the process: Following from this stage is that of *interessement*, where the researchers lock the actors into the roles that they had set for them, and then enrol them by interrelating them with the various other actors. These two moments of translation dissociate the actors from other allies in order to make their link to the researchers stronger. In the final moment of translation, the researchers mobilised the actors by ensuring that

spokespersons for the collectivities of actors were properly able to represent them, and also to make sure that these representatives were not then betrayed by these collectivities. There are numerous occasions when Callon and Latour alike are insistent that ANT is not a theory but a method. In ANT the T is too much Their paper begins with detailing a sociological method bulging with all of the classic ANT principles: The paper is an attempt to show the interconnectedness of the two aspects and thus it is upon this theoretical principle that the methodological guidelines are pinned. The notion that the social and the technical are inextricably linked is therefore part of both the theoretical and the methodological. The question that then remains is: The complete rejection by ANT of a priori theoretical frameworks seems to be more a polemic than a functional basis for the theory. This is not to say that he is disingenuous in what he says, but simply that sometimes taking a hard-line view is necessary to alert people that there are certain assumptions that need to be challenged. Taking a soft, middle ground approach generally leads to a theory being lost in a vast array of others, or, in Hobbesian terms, leads to it shining no more than the stars in the presence of the sun. However, it is with this level of popularisation and generalisation that ANT meets its downfall: Cambridge University Press, , ed. Sociologists of the social, according to Latour, use very clear and precise terms to depict what they think the actors say. The tracing of associations, or following the actor, is admittedly an extremely difficult process, but Latour is adamant that it is an essential part of the process. Bruno Latour and Metaphysics unpublished manuscript available from Graham Harman on request p. Actor-network theory evidently differs from the classical tradition of sociology at its very core. Its belief in a flat ontology puts all entities, human and non-human, on the same plane – a notion unspoken of in the Durkheimian tradition. Actors are awarded the same level of knowledge about their world as sociologists, and therefore the task of the sociologist is simply to follow these actors. The common assumptions on which much of traditional sociology has been based have been called into question, and the role that non-human entities play in the way the world works are given appropriate attention. Callon shows vividly how an actor-network theorist might go about analysing a situation with no prior expectations, and highlights how animals and objects play as much a part in the formation of associations as humans. The criticisms levelled at ANT, particularly at Latour, about its polemical character may be reasonable, but in order for it to be noticed, and consequently for the faults with the traditional method of sociology to be highlighted, it has been the perfect move, and one which has successfully provided academics and students alike with a fresh way of approaching sociology. Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fisherman of St. Brieuc Bay , abridged Biagioli, The Science Studies Reader pp. Domestication of the Scallops and the Fishermen of St. Law, Power, Action and Belief: A New Sociology of Knowledge? Unscrewing the big Leviathan: Cicourel, Advances in social theory and methodology: Toward an integration of micro- and macro- sociologies pp. Boston, London and Henley: Bruno Latour and Metaphysics. The Social in Question: New Bearings in History and the Social Sciences. We Have Never Been Modern. On Actor Network Theory: Retrieved December 17, , from Nettime: What is the Style of Matters of Concern? Engineering and Sociology in a Military Aircraft Project: A Network Analysis of Technological Change. Social Problems , Vol. Notes on the Theory of the Actor Network: Ordering, Strategy and Heterogeneity. Actor Network Theory and After. Course in General Linguistics. The Sociological Theories of Gabriel Tarde. Political Science Quarterly , Vol.

Chapter 4 : Actor-Network Theory (ANT) - Learning Theories

ACTOR NETWORK THEORY Actor network theory (ANT), also known as enrolment theory or the sociology of translation, emerged during the mids, primarily with the work of Bruno Latour.

David Banks on December 2, Bruno Latour. Denis Rouvre on TheHindu. How much of ourselves is represented in our Skyrim characters? Is retweeting an ows rally location a political act? How is access to the Internet related to free speech? I know some equally smart people that would throw up their hands in frustration at even considering these topics as worthy of research and critical analysis. Regardless of whether or not you think it is worth pondering these questions, people all over the world are engaging in something when they post a Facebook status or check in to a coffee shop on Foursquare. In his *Defending and Clarifying the Term Augmented Reality*, Nathan described how our relationship to these sorts of digital Information and Communication Technologies ICTs fits in with our historical relationship to technology: There are three major authors that write under the banner of Actor Network Theory: Law describes ANT as, "a disparate family of material-semiotic tools, sensibilities and methods of analysis that treat everything in the social and natural worlds as a continuously generated effect of the webs of relations within which they are located. It assumes that nothing has reality or form outside the enactment of those relations. Its studies explore and characterise the webs and the practices that carry them. ANT is an extremely effective tool for describing the processes by which inventions and technological systems come into being, or fail to materialize. If a new technology is mature through the various stages of innovation, its inventors must secure the cooperation of potential users, as well as the various components of the device. A few weeks ago, I wrote about my personal experiences in getting wifi to work in occupyalbany. After several hours, the IT working group resolves that 4G hotspots will not cooperate with their encampment. The 4G signal refuses to visit the park with the same regularity as the activists. Without the 4G signal, those in the park are unable to reach their fellow activists, computers, protest signs, and supplies located throughout the Hudson Valley region. The IT working group decides instead, to project a wireless signal from a nearby apartment into the park. They devise an assemblage of signal repeaters and routers that will provide a more reliable stream of data that will show up on time to general assemblies, and in sufficient numbers. The working group believes that the attendance of broadband Internet will allow the geographically and temporally dispersed occupiers to be enrolled within the larger actor-network of Occupy Albany. This increased attendance by activists, broadband connections, and networking hardware, according to the facilitation working group, will lend more authority to the decisions that come out of the GA and keep the occupation going through the winter. You will note that I use the same language to describe both human and nonhuman entities. I describe the GA as attended by not just people, but 4G signals and wifi hardware. If the occupation does not last through winter, an ANT theorist could blame the inability of the IT working group to enroll sufficient broadband connections that facilitate at-home GA attendance. Sandra Harding has criticized ANT for dismissing such basic social factors as race, class, gender, and postcolonialism. They also openly question whether or not ANT should even be called a social theory at all. This post can only give the very basic outline of what Actor Network Theory says and does. I hope this post gives you the ability to do your own comparison of ANT and AR before we tackle the subject ourselves.

Chapter 5 : Actor-network theory - Wikipedia

Actor Network Theory (ANT) is society's relationship to technology and other nonhuman actor (Banks,). Put simply, ANT is the theory that "actants", human and nonhuman, both possess the same level of agency to make up a network.

Chapter 6 : Actor network theory - IS Theory

The actor-network theory in Plain English, based on Tatnall & Gidding (). A freestyle on www.nxgvision.com

Chapter 7 : A Brief Summary of Actor Network Theory - Cyborgology

What is Actor- Network Theory? What are its strengths and limitations as a form of sociological theory? Farzana Dudhwala Corpus Christi College Cambridge CB2 1RH fd@www.nxgvision.com What is Actor-Network Theory, and what are its strengths and limitations as a form of sociological theory?

Chapter 8 : Talk:Actor network theory - Wikipedia

W. Detel, in International Encyclopedia of the Social & Behavioral Sciences, 3 The Actor-network Theory. The actor-network theory (Latour and Woolgar , Latour) is a form of constructivism that rejects the idea of a social determination of scientific knowledge, prominent in the Edinburgh school, mainly for the reason that the social is barely better understood than the natural.

Chapter 9 : Actor-Network Theory (ANT) - Geography - Oxford Bibliographies

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