

DO ANTHROPOLOGISTS USE RATIONAL ACTOR MODELS? THE CASE OF MARILYN STRATHERN

Author: Terence Rajivan Edward

Abstract. Economics uses rational actor models, but what about anthropology? I present an interpretation of the influential anthropologist Marilyn Strathern according to which she engages in a kind of rational actor modelling, but a kind that is different from economic modelling.

Keywords: Marilyn Strathern, rational actor model, implicit-explicit, assumption, positivism.

Rational actor modelling is a method that is used for making predictions in economics. For example, if demand for houses increases but supply stays the same, an economist would probably predict an increase in the prices of houses by using this method. A way of arriving at this prediction is as follows. The economist would assume that individuals selling houses pursue the goal of getting as much money from house sales as possible and pursue it rationally – they take the actions which seem most likely to achieve this goal given the information available to them. The economist would further assume that both buyers and sellers have full information about the market, including that demand for houses has increased but supply has stayed the same. Perhaps not everyone selling a house does pursue this goal rationally and perhaps not all individuals have full information, but a simple model of behaviour which relies on these assumptions seems close enough to reality for its predictions to be reliable. Even if the model is very different to reality, if we have some reason to think that its predictions will roughly or exactly obtain in some contexts, then it is of use (Friedman and Savage 1948: 298).

Economics is well-known for involving rational actor models. The value of these models is a perennial object of debate. What about anthropology? Do anthropologists ever rely on

rational actor models? I present an interpretation of the influential anthropologist Marilyn Strathern according to which she too engages in a kind of rational actor modelling, albeit a kind that is different from economic modelling. But I begin with some guidance from an earlier anthropologist, namely Edmund Leach.

If an anthropologist tells us that a certain group believes something, it may seem that they are providing information about the psychology of group members, specifically how these individuals think. But in his article “Virgin Birth,” Leach tells us that we should not interpret the claim in this way. He writes:

When an ethnographer reports that “members of the X tribe believe that...” he is giving description of an orthodoxy, a dogma, something which is true of the culture as a whole. But Professor Spiro (and all the neo-Tylorians who think like him) desperately believe that the evidence can tell us much more than that – that dogma and ritual must somehow correspond to the inner psychological attitudes of the actors concerned. (1966: 40)

According to Leach’s instructions, if an anthropologist says that the Bororo believe that there are ghosts, the anthropologist means that within Bororo culture it is an orthodoxy that there are ghosts. What is it for this to be an orthodoxy? Here we need only propose one condition that must be met: that some members of this culture make statements that assert the existence of ghosts. There are, of course, other conditions. Regardless of these, the anthropologist should not be interpreted as saying that the Bororo psychologically accept that there are ghosts. Some Bororo may just be going along with the orthodoxy to fit in. In fact, all of them may be pretending.

On different occasions, Strathern writes as if she would like to be interpreted in accordance with Leach's instructions (1992: xvii; 1999: xii). I shall focus on her book *After Nature: English kinship in the late twentieth century*. In the preface, she tells readers not to think of her as making psychological claims:

...the apparent ascription of attitudes and beliefs to this or that set of persons should not be mistaken for a study of what people think or feel. (1992: xvii)

But there are points within the main body of her book where it is unclear how to apply Leach's instructions to what she says. For example, she says that English culture, from 1860 to 1960, accorded the following three propositions the status of facts: there are individuals; there is diversity; and individuals reproduce individuals (1992: 53). The rise of cloning in the late twentieth century led to doubts about this third proposition. (See appendix 1 for a clarification of it.) But was it ever an orthodoxy? Did anyone in England from this period actually assert that individuals reproduce individuals?

One way of making sense of Strathern is to interpret her view as follows: although the English did not assert this proposition, in the sense of using the sentence "Individuals reproduce individuals" or any equivalent in meaning to make an assertion, they did assume its truth. If we examine what they did say, this proposition was assumed by some of their assertions. In *After Nature*, Strathern encourages this interpretation. In fact, she goes further and endorses a specific conception of assumptions. She describes anthropologists as making explicit what is or was implicit and characterizes unstated assumptions as implicit (1992: 7-8). The characterization conveys that assumptions are features of the object of study, as much as what is explicitly said is,

but they have the quality of being implicit. Let us call this the implicit-explicit interpretation.¹

However, there is another interpretation of Strathern, which we can call the predictive model interpretation. This interpretation may appear to be against the spirit of Strathern’s anthropological research, yet it or something close to it strikes me as fitting better with her long-term commitments. To illustrate this other interpretation, imagine that a baby is born in 1900 and that someone who sees the baby says, “His eyes are just like his father’s.” Imagine that someone else replies, “I am sure he will have a personality which is absolutely identical to his father’s as well.” This claim would be regarded as quite strange.² It might well be met with the response, “Don’t be silly. Of course, he is going to have his own personality.” The propositions which Strathern attributes to English kinship from 1860 to 1960, including that individuals reproduce individuals, enable us to predict this reaction. On the predictive model interpretation, there is no commitment to the proposition’s being somehow there within English culture, but implicit. Strathern is neutral on this issue. The set of propositions which Strathern attributes to English culture is an anthropologist’s construct³ and its value is to enable prediction of what would be said, under certain circumstances.

This is a kind of rational actor modelling, but different from economic modelling. It does not specify preferences, such as the preference to maximize profit. The anthropologist models members of a given culture as if they accept a coherent set of propositions about what is generally the case and as if they react to specific circumstances by consistently applying these

¹ On the implicit-explicit interpretation, what Strathern thinks is that these propositions are unstated assumptions and that such assumptions are or were implicit. A question I shall not address is whether these commitments can be separated from one another, e.g. can one hold that these propositions are unstated assumptions and not implicit?

² I am not sure that it is a good idea for anthropologists to test their subjects by intentionally making “weird remarks.” The example is not inspired by actual anthropological practice; it is a crude but vivid illustration of the predictive-model interpretation. See footnote 6 below for evidence of behavioural predictions in Strathern’s writing.

³ If propositions are abstract entities, and cannot stand in causal relations and so cannot be “constructed,” the idea is that the anthropologist entertained them and found them to be useful but there is no commitment to their being stated by members of the culture or implied or psychologically accepted by them.

general propositions to the circumstances. We can call this rational actor modelling because of the coherence of the propositions and the consistency of their application. In the example above, the respondent is modelled as starting from the general proposition that individuals reproduce individuals and a feature of this particular case – that the father is an individual – to conclude that the child will not have a personality which is identical to the father's. The anthropologist is neutral on the question of whether members of the culture are aware of a coherent set of general propositions and then consistently apply them. If the model enables prediction, it is a good model.

Some people who are accustomed to only seeing mathematical models may say that this is not a proper model. It is the beginnings of a model, but it is not a proper model until it has been presented in the language of mathematics. A distinguished philosopher encourages this response in an article aimed at a wider readership than academics.⁴ But I do not see why some models cannot be presented in words. Anyway, the crucial point here is that there are close resemblances between what Strathern is doing, on this interpretation, and uncontroversial cases of rational actor modelling. For convenience of expression, I shall continue to speak of what we are dealing with as a model.

Should we endorse the predictive model interpretation of Strathern? Strathern does not say why she avoids psychological attributions. The reason offered by Leach is that he is a positivist (1966: 39). In other words, he thinks that an anthropologist should only make claims that can be verified by observation. There is another part to his reason, which combines with this positivism: he thinks psychological qualities cannot be observed (1966: 40). At this point, it is

⁴ Timothy Williamson encourages this response when he writes, "Often, the only feasible approach to understanding complex natural and social processes is by building theoretical "models", sets of highly simplified assumptions in the form of mathematical equations, which can then be studied and tested against observed data." (2019) For other attempts to understand what a model is, see Alexandrova and Northcott 2009.

worth noting how Leach responds to a question within British social anthropology. British anthropologists between the 1930s and 1960s focused on describing social structures, such as complementary systems of roles within an institution. Leach's response to the question of whether social structures are observable is that they are not. He classes them as models (Leach 1954: 5; Nutini 1965: 711; Bock 1967). Now if Strathern's reason for avoiding psychological attributions is the same as Leach's – positivism and the view that psychological qualities cannot be observed – then the question arises as to whether she can observe that the propositions she attributes to English culture are part of it. Because they are not asserted, it is not transparent that she can. A natural move for someone with Strathern's intellectual background is to say that the propositions are part of a model. The implicit-explicit interpretation fits better with the text of *After Nature*, but in the absence of explanations, there is a “philosophical pressure” towards the predictive model interpretation.

It is surprising that Strathern does not offer this interpretation herself, or else some subtly different one that appeals to models, given what she says in her 1988 book *The Gender of the Gift*. There she warns against treating the systematic analyses that anthropologists offer as revealing something systematic within reality. She writes:

Their danger lies in making the system appear to be the subject under scrutiny rather than the method of scrutiny. The phenomena come to appear contained or encompassed by the systematics, and thus themselves systematic. So we get entangled in world systems and deep structures and worry about the ‘level’ at which they exist in the phenomena themselves. (1988: 7)

Here Strathern thinks of systematic analyses of phenomena as constructions by anthropologists which are useful for anthropology as a discipline, while remaining neutral on the extent to which

these analyses capture how things really are.⁵ So it is surprising that, in *After Nature*, she does not treat the coherent set of propositions that she attributes to English culture in this way – as a model that is useful for some end of anthropology – while remaining neutral on whether it is somehow there, implicitly, within the culture.⁶

Appendix 1: a clarification of “individuals reproduce individuals”

I have used the proposition that individuals reproduce individuals as an example, but without clarifying it. For the points made within the main body of the paper, it did not seem necessary to do so. Strathern herself does not clarify the proposition, but I shall offer a brief clarification which I believe captures her thinking. An individual is a person who, although they may be part of various things, such as a family or a football team, is also a distinct entity in their own right; furthermore, they have a character (or personality) which is unique to them. The claim that individuals reproduce individuals is the claim that, if an individual reproduces, their offspring is also a person who is a distinct entity in their own right, with a character unique to them (or if they are very young and if unique characters are not always present from the beginning of life, they will have such a character given a path of development that does not involve a very early death or a rare, severe disorder).

Appendix 2: the two interpretations and the ontological turn

The two interpretations I have presented both cast Strathern as presenting a worldview,

⁵ Elsewhere she accepts Leach’s point about social structures. She writes, “The resultant models were an attempt to discover what could be said about organization and regularity in social life, not an attempt to deny that people were individuals or events improvised.” (1990b: 311-312)

⁶ Perhaps there is some other end, apart from prediction, which she might specify. Nevertheless, the rejection of the implicit-explicit interpretation would remain. Strathern may not be comfortable with some preconceptions about scientific prediction, but she does attribute behavioural dispositions to people, e.g. “The Melanesian material serves as a commentary on the manner in which the English construe relations.” (1992: 72)

either one implicit in the culture or one that is bound up with a model. However, there is a movement in anthropology that has been strongly influenced by Strathern but opposes itself to presenting worldviews, namely the ontological movement (Henare et al. 2007: 10; see also Miller 2006/2007: 85). How can we make sense of this combination? At least part of what has happened is this: members of this movement have taken a point that Strathern makes and drawn consequences from it which are very different from the consequences she draws (Henare et al. 2007: 3). Strathern says that if anthropology is about presenting worldviews, then there is no reason to refer to artefacts except as illustrations: examples that can help the reader understand propositions that are part of a worldview but are in principle dispensable – if one refers to a certain artefact, one does not have to refer to that artefact (1990a: 37-38). Her reaction to this point is that it justifies a division of labour between anthropologists and museologists, who do not treat artefacts as mere illustrations (1990a: 39-40). Members of the ontological movement react by saying that it is a good idea for anthropology to fully incorporate artefacts and a revolution is needed to do so, in which it gives up on presenting worldviews (Henare et al. 2007: 3, 10).

But should we accept Strathern's point to begin with? In England, Dolly the sheep was a well-known example of the use of cloning technology. Is Dolly merely a helpful but dispensable illustration when trying to describe or model changing English worldviews in response to cloning? It is plausible that one has to model the English, or a proportion of them in the early 1990s, as thinking as follows: "If a sheep has been cloned, probably a human being can now be cloned. A sheep has been cloned. In which case, probably a human being can now be cloned." Of course, it is questionable whether Dolly should be referred to as an artefact, but if Strathern's point is correct, then it applies to any particular being, artefact or not – there is no need to refer to

that particular being⁷ except as an example that is helpful for readers (see Edward 2018).

⁷ If there is underdeterminism in relation to modelling, it seems to me that one will still have to introduce a much more specific proposition than the more general ones Strathern associates with a worldview – a proposition that is the nearest counterpart to one which refers to a particular being, given some other system of concepts.

References

- Alexandrova, A. and Northcott, R. 2009. Progress in Economics: Lessons from the Spectrum Auctions. In H. Kincaid and D. Ross (eds.), *The Oxford Handbook of Philosophy of Economics*. Oxford: Oxford University Press.
- Bock, P. 1967. Three Descriptive Models of Social Structure. *Philosophy of Science* 34: 168-174.
- Edward, T.R. 2018. Artefacts as Mere Illustrations of a Worldview. *Symposion* 4: 241-244.
- Friedman, M. and Savage, L.J. 1948. The Utility Analysis of Choices Involving Risk. *Journal of Political Economy* 56: 279-304.
- Henare, A., Holbraad, M. and Wastell, S. 2007. Introduction. In Henare, A., Holbraad, M. and Wastell, S., *Thinking Through Things*. London: Routledge.
- Leach, E.R. 1954. *Political systems of highland Burma: A study of Kachin social structure*. Cambridge, Massachusetts: Harvard University Press.
- Leach, E. 1966. Virgin Birth. *Proceedings of the Royal Anthropological Institute of Great Britain and Ireland* 1966: 39-49.
- Miller, D. 2006/2007. Review of A. Henare, M. Holbraad and S. Wastell (eds.), *Thinking Through Things*. *Cambridge Anthropology* 26: 85-87.
- Nutini, H.G. 1965. Some Considerations on the Nature of Social Structure and Model Building: A Critique of Claude Lévi-Strauss and Edmund Leach. *American Anthropologist* 67: 707-731.
- Strathern, M. 1988. *The Gender of the Gift: Problems with Women and Problems with Society in Melanesia*. Berkeley: University of California Press.
- Strathern, M. 1990a. Artifacts of history: events and the interpretation of images. In Sikkala, J. (ed.), *Culture and History in the Pacific*. Helsinki: Finnish Anthropological Society.

Strathern, M. 1990b. Review of Renato Rosaldo, *Culture and Truth: The Remaking of Social Analysis*. *History of the Human Sciences* 3: 310-313.

Strathern, M. 1992. *After nature: English kinship in the late twentieth century*. Cambridge: Cambridge University Press.

Strathern, M. 1999. *Property, Substance and Effect: Anthropological Essays on Persons and Things*. London: Althone.

Williamson, T. 2019. In the post-truth world, we need to remember the future of science. *New Statesman* 28th January 2019. Available at:

<https://www.newstatesman.com/2019/01/post-truth-world-we-need-remember-philosophy-science>