

✘ I must confess a predilection for the anthropological and psychological writing of the mid-twentieth century, when anthropologists were still trying to explain culture and the principles of the cognitive revolution in psychology were first being worked out. It was in the course of my most recent historical dalliance that I came across E. E. Evans-Pritchard's 1933 article "The intellectualist (English) interpretation of magic", which occasions the present musing:

Two models of magical associations have been proposed. Frazer proposed that magical associations are the result of the application of a cognitive rule. Evans-Pritchard countered that magical associations are too selective to be the result of such a rule. In computational terms, Evans-Pritchard's proposal is that magical associations are represented by a look-up table. Yet the occasional generalization and extension of magical associations suggests that at least in some cases inheritors of such traditions are seeking to capture the look-up table with a rule.

Edward Evan Evans-Pritchard (1902-1973) was an anthropologist most famous for his ethnography, *Witchcraft, Oracles, and Magic among the Azande* (1937) in which he argued that primitive peoples are no less rational than anyone else, ...

..., that even apparently bizarre ideas about witchcraft are, if not correct, at least intellectually respectable, when understood in context. Evans-Pritchard's article, written after he had completed his fieldwork among the Azande but before he wrote *Witchcraft*, offers a window into the intellectual background of his famous book. In the article, he reviews the theories of magic proposed by Edward Tylor and James Frazer, the latter of whom argued that magical practices were based on an intellectual mistake, the fallacious conclusions of which were subsequently protected from disconfirmation. Frazer argued that primitives made accurate observations about the world, but erred in reasoning about them using the principle of similarity (that similar objects can causally influence each other) and the principle of contiguity (that two objects that have once been in contact ever after causally influence each other). This faulty reasoning led them to carry out magical practices.

Evans-Pritchard pointed out that Frazer's psychological explanation was too general, that it could not account for the selectivity with which magical associations were made: "One is not surprised that a Greek peasant can see a resemblance between the colour of gold and the colour of jaundice but the problem is why he should associate these two things together in magical performances when he does not associate them together in other situations and why he associates these two particular things and not other things which have the same qualities of colour. (p. 308)"

Some other account must be given of the selectivity of magical associations. Evans-Pritchard argued (à la Durkheim) that the association was a social fact, existing prior to the individual who learned it and providing the conditions for the individual's mental representation:

"We must not say that a Greek peasant sees that gold and jaundice have the same colour and that therefore he can use the one to cure the other, Rather we must say that because gold is used to cure jaundice colour associations between them becomes established in the mind of a Greek peasant. (p. 308)"

Evans-Pritchard's observation is undeniably correct, and this way of construing the relation between cultural traditions and individuals' mental representations is fundamental to the epidemiology of representations outlined by Dan Sperber and extended, in the field of religion, especially by Pascal Boyer. I believe the Boyeran account of the magical manipulation of gold to cure jaundice would, very roughly, go as follows: the association between gold and jaundice is highly communicable because it is conceptually simple (largely intuitive), slightly puzzling (the procedure attributes to gold a causal property that gold does not intuitively have), and relevant in environments where gold is available and jaundice is endemic. As it should, this account explains how, given that a particular gold-jaundice association is socially available, that association is apt to be transmitted widely

enough to become cultural.

Yet in the course of my own research on magical and mantic uses of Bibles, I found a significant number of cases where people took existing associations and extended or generalized them. I believe other historians and anthropologists studying magical practices have found the same phenomenon.

There may be something to be gained by looking at this problem computationally. Frazer's claim was that magical associations were the result of the application of general rules of thought; Evans-Pritchard's counter was that magical associations were far too selective to be the result of a general rule of thought. In computational terms, Frazer's claim was that magical associations could be mentally represented by a rule; Evans-Pritchard's claim was that they were so selective that they could be mentally represented only in the form of a look-up table. On the whole, Evans-Pritchard's account must carry the day, and I think Boyer and others have been correct to build on this foundation. But would we not be on solid cognitive ground to surmise that those who encounter such arbitrary associations tacitly—and sometimes explicitly—seek to find a rule to describe the look-up table? It seems to me that one of our primary cognitive operations must be to seek greater compression—a more parsimonious representation—of our own mental representations. The reuse of symbolic associations, especially their generalization, may well reflect this basic cognitive operation at work.