The contemporary African philosopher Kwame Anthony Appiah examines the rationality of some traditional African religious beliefs. He examines whether these beliefs can be captured by the reflective and objective evidentiary epistemic principles of science and philosophy, or whether they are beliefs that can be seen only in terms of symbolism. He starts by making a distinction between rationality and reasonableness. He argues that rationality is an objective notion of an ideal or truth as something that is worth aiming at. This ideal involves a critical and reflective disposition on the part of someone to react to evidence as a basis for making a judgment regarding whether to accept or modify a belief or not, in terms of whether a belief has the likelihood of being true or false. Reasonableness is a subjective notion that involves the personal attempt to be rational: it involves what a person considers appropriate to achieving the ideal truth. In which case, a person may be reasonable but irrational if he sincerely accepts a belief as supported by evidence and critical reflection, based on beliefs that are untrue and unrelated to the reality regarding what we already know and accept. He examines the issue of whether Africans can be considered reasonable for accepting spiritualistic explanations and beliefs that are scientifically false. He rejects the symbolist explanation of how such beliefs or explanations may be reasonably accepted. According to the symbolist, these explanations and beliefs are accepted only as symbolically true.

Appiah rejects this view because he does not think that Africans accept these beliefs symbolically, that they are able to clearly distinguish among different cases of symbolic and literal representations. Appiah thinks that spiritualistic beliefs are reasonable because there is experiential or observational evidence that indicates the plausibility of these beliefs. These observations are theory-laden, in that African people have some assumptions and hypotheses within their conceptual scheme that allow them to make sense of these beliefs. If they accept certain hypotheses as true, they can use them as a basis for accepting other beliefs or making sense of explanations. Moreover, many Africans seem to accept these beliefs and explanations because, usu-
ally, there are no acceptable alternative beliefs or explanations. Given these reasons, Appiah seems to accept that most spiritualistic explanations in African cultures are comparable to scientific explanations. He draws from the ideas of Robin Horton, that spirits and what may be considered false beliefs in African cultures are similar to theoretical entities of science, and that these beliefs play roles in spiritualistic explanation similar to that which theoretical entities play in scientific explanation. However, the difference is that spiritualistic explanations and beliefs are personal, while scientific beliefs are impersonal.

Appiah argues that spiritualistic explanations are personal because people attempt to explain the unknown by using the known, which is usually personal. As such, Africans end up presenting mechanistic causal connections in functional terms by making them relevant to the human condition. Appiah further examines Horton’s idea that one of the differences between explanations in science and traditional African cultures is that African cultures represent a closed system of inquiry, while the scientific context of inquiry is open, and that Africans were not aware of or exposed to alternative modes of explanation and beliefs that they could consider. He seems to reject this. He thinks that Africans were exposed to other beliefs systems via trade and wars. However, he accepts that African cultures are mostly accommodative of ideas, which meant that ideas were not critically examined and questioned. They accepted many beliefs as dogmas. It was, for instance, considered impolite to disagree, argue, or question, especially elders or tradition. This was the result of the social organization. Moreover, there was also no social mobility in traditional African cultures. As such, people did not confront ideas on their own. Because they always lived in the social context of their traditional beliefs, they did not question because ideas were not decentralized and people did not have the kind of cognitive authority required for them to individually examine ideas for themselves.

For the most part, Africans did not explore ideas for the sake of finding the truth; they appeared to be content with what works and what is reasonable to accept in a given context. Moreover, the scientific method is adversarial, which requires that people adopt a skeptical approach to beliefs and subject them to critical analysis before they can be accepted. As a result, scientists were more open to the possibility of changing their theories based on better evidence. Another feature of the African situation was that it was pre-literate. As such, many of their beliefs and explanations were not documented. They were passed down through successive generations by oral
tradition. This did not allow ideas to be critically examined. It also did not allow people to easily see discrepancies among the ideas of elders. Written tradition allowed for and perhaps demanded more abstraction, universality, and precision, and less figurative use of language. Because you are not sure who your reader is, it is pertinent to be clear or bring out every assumption; the reader may not share the same cultural assumptions as yours. Writing and education will bring about fusions between Western and African ideas. Educated Africans are examining their own traditional beliefs and this will lead to a situation where Africans can maintain elements of their traditional beliefs that they find acceptable, along with some Western beliefs. So, the question is not whether these beliefs should be accepted; it appears there is no choice.

As you read Appiah, consider and reflect on the following questions: What is the difference between rationality and reasonableness? Why are traditional African beliefs and explanations reasonable but not rational? Why does Appiah reject the symbolist explanation of the reasonableness of African beliefs? How is the scientific mode of inquiry different from the traditional African mode of inquiry? How is lack of written tradition relevant to the nature of inquiry in traditional African cultures?

In coming to terms with what it means to be modern, Western and African intellectuals have interests they should share. . . . [A]s I shall suggest, neither of us will understand what modernity is until we understand each other. . . .

[O]ne of the marks of traditional life is the extent to which beliefs, activities, habits of mind, and behavior in general are shot through with what Europeans and Americans would call “religion.” . . . Most intellectuals outside . . . [traditional societies] think they know, after all, that there are no such spirits [as can be summoned by sacrificing, for example, gold or sheep and chickens at a shrine]. That, for all the requests in the priest’s prayer, no unseen agent will come to inhabit the shrine; no one will answer the questions “What made this person ill?” or “Would we win if we went to war?” or “How should we cure the king’s elder?” Yet here is a culture [Asante] where, for at least several hundred years, people have been setting up just such shrines and asking them just such questions and asking the spirits they

believe are in them to perform just such tasks. Surely by now they should know, if they are rational, that it won’t work? . . . And if we press the question how these beliefs can be sustained in the face of a falsity that is obvious, at least to us, we shall return, in the end, to the question whether we have really understood what is going on. . . .

We need, I think, to bear in mind at least these three separate types of understanding: first, understanding the ritual and the beliefs that underlie it; second, understanding the historical sources of both ritual and belief; and, third, understanding what sustains them. . . .

To understand these ritual acts what is necessary is what is necessary in the understanding of any acts: namely to understand what beliefs and intentions underlie them, so that we know what the actors think they are doing, what they are trying to do. Indeed if we cannot do this we cannot even say what the ritual is. To say that what is going on here is that these people are inviting a spirit to take up its place in a shrine is already to say something about their beliefs and their intentions. It is to say, for example, that they believe that there is a spirit, Ta Kwesi, and believe too that asking the spirit to do something is a way of getting that spirit to do it; it is to say that they want the spirit to inhabit the shrine. . . .

But if we are to face the question of the rationality of traditional belief we must turn, finally, to my third set of questions: those about what keeps these beliefs, which outsiders judge so obviously false, alive.

It is in asking these questions that some have been led by another route to treating religion symbolically. The British anthropologist John Beattie, for example, has developed a “symbolist” view of Africa’s traditional religions, whose “central tenet,” as Robin Horton (a philosopher-anthropologist, who is a British subject and a longtime Nigerian resident) puts it, “is that traditional religious thought is basically different from and incommensurable with Western scientific thought”; so that the symbolists avoid “comparisons with science and turn instead to comparisons with symbolism and art. . . .”¹ Simply put, the symbolists are able to treat traditional believers as reassuringly rational only because they deny that traditional people mean what they say. Now Robin Horton has objected—correctly—that . . . [i]t is peculiarly unsatisfactory to treat a system of propositions as symbolic when those whose propositions they are appear to treat them literally and display, in other contexts, a clear grasp of the notion of symbolic representation.

. . . [I]t is in [Durkheim’s] work that we call find the clearest statement of the connection between the urge to treat religion as symbolic and the
question why such patently false beliefs survive. For Durkheim cannot allow that religious beliefs are false, because he thinks that false beliefs could not survive. Since if they are false they would not have survived, it follows that they must be true: and since they are not literally true, they must be symbolically true. This argument is based on a misunderstanding of the relationship between the rationality of beliefs, their utility and their truth; it is important to say why.

Rationality is best conceived of as an ideal, both in the sense that it is something worth aiming for and in the sense that it is something we are incapable of realizing. It is an ideal that bears an important internal relation to that other great cognitive ideal, Truth. And, I suggest, we might say that rationality in belief consists in being disposed so to react to evidence and reflection that you change your beliefs in ways that make it more likely that they are true. . . .

With such an account of reasonableness, we can see why the apparently obvious falsehood of the beliefs of the Asante priest might be regarded as evidence of his unreasonableness. For how could he have acquired and maintained such beliefs if he was following the prescription always to try to change his beliefs in ways that made it more likely that they were true? The answer is simple. The priest acquired his beliefs in the way we all acquire the bulk of our beliefs: by being told things as he grew up. As Evans-Pritchard says of the Zande people, they are “born into a culture with ready-made patterns of belief which have the weight of tradition behind them.” And of course, so are we. On the whole, little has happened in his life to suggest they are not true. So too, in our lives.

Now it may seem strange to suggest that accepting beliefs from one’s culture and holding onto them in the absence of countervailing evidence can be reasonable, if it can lead to having beliefs that are, from the point of view of Western intellectuals, so wildly false. And this is especially so if you view reasonableness as a matter of trying to develop habits of belief acquisition that make it likely that you will react to evidence and reflection in ways that have a tendency to produce truth. . . .

We may also fail to see how reasonable the priest’s views should seem, because, in assessing the religious beliefs of other cultures, we start, as is natural enough, from our own. But it is precisely the absence of this, our alien, alternative point of view in traditional culture, that makes it reasonable to adopt the “traditional” worldview. The evidence that spirits exist is obvious: priests go into trance, people get better after the application of spiritual
remedies, people die regularly from the action of inimical spirits. The reinter-
pretation of this evidence, in terms of medical-scientific theories or of
psychology, requires that there be such alternative theories and that people
have some reason to believe in them; but again and again, and especially in
the area of mental and social life, the traditional view is likely to be con-
firmed. We have theories explaining some of this, the theory of suggestion
and suggestibility, for example, and if we were to persuade traditional
thinkers of these theories, they might become skeptical of the theories held
in their own culture. But we cannot begin by asking them to assume their
beliefs are false, for they can always make numerous moves in reasonable
defense of their beliefs. [Blaming some extant auxiliary hypothesis or
adding some excusing auxiliary, for example.] It is this fact that entities us to
oppose the thesis that traditional beliefs are simply unreasonable.

Philosophers of science have names for this: they say that theory is
“underdetermined” by observation, and that observation is “theory-laden.”
And they mean by underdetermination the fact that French philosopher-
physicist Pierre Duhem noticed in the early part of this century: that the
application of theory to particular cases relies on a whole host of other
beliefs, not all of which can be checked at once. By the theory-ladenness of
observation, relatedly, they mean that our theories both contribute to forming
our experience and give meaning to the language we use for reporting it. Sir
Karl Popper’s claim that science should proceed by attempts at falsification,
as we all know after reading Thomas Kuhn, is incorrect. If we gave up every
time an experiment failed, scientific theory would get nowhere. The under-
determination of our theories by our experience means that we are left even
by the most unsuccessful experiment with room for maneuver. The trick is
not to give up too soon or go on too long. In science, as everywhere else,
there are babies and there is bathwater.

[T]raditional religious theory is in certain respects more like modern
natural science... which we may summarize in the slogan “explanation,
prediction, and control.” It is his systematic development of the analogy
between natural science and traditional religion that has made the work of
Robin Horton so important in the philosophy of African traditional religions,
and it will be useful to begin with him.5

Horton’s basic point is just the one I made earlier: the fundamental char-
acter of these religious systems is that the practices arise from the belief, literal
and not symbolic, in the powers of invisible agents. Horton argues persua-
sively, and I believe correctly, that spirits and such function in explanation,
prediction, and control much as do other theoretical entities: they differ from those of natural science in being persons and not material forces and powers, but the logic of their function in explanation and prediction is the same.

Horton’s view, then, is that religious beliefs of traditional peoples constitute explanatory theories and that traditional religious actions are reasonable attempts to pursue goals in the light of these beliefs—attempts, in other words, at prediction and control of the world. In these respects, Horton argues, traditional religious belief and action are like theory in the natural sciences and the actions based on it. . . . Horton’s thesis is not that traditional religion is a kind of science but that theories in the two domains are similar in these crucial respects. The major difference in the contents of the theories, he argues, is that traditional religious theory is couched in terms of personal forces, while natural scientific theory is couched in terms of impersonal forces. The basic claim strikes me as immensely plausible. . . .

Horton himself is, of course, aware that traditional religious beliefs are certainly unlike those of natural science in at least two important respects. First of all, as I have already insisted, he points out that the theoretical entities invoked are agents and not material forces. . . . And he offers us an account of wily this might be. He suggests that this difference arises out of the fundamental nature of explanation as the reduction of the unfamiliar to the familiar. In traditional cultures nature, the wild, is untamed, alien, and a source of puzzlement and fear. Social relations and persons are, on the contrary, familiar and well understood. Explaining the behavior of nature in terms of agency is thus reducing the unfamiliar forces of the wild to the familiar explanatory categories of personal relations.

In the industrial world, on the other hand, industrialization and urbanization have made social relations puzzling and problematic. We move between social environments—the rural and the urban, the workplace and the home—in which different conventions operate; in the new, urban, factory, market environment we deal with people whom we know only through our common productive projects. As a result the social is relatively unfamiliar. On the other hand, our relations with objects in the city are relations that remain relatively stable across all these differing social relations. Indeed, if factory workers move between factories, the skills they take with them are precisely those that depend on a familiarity not with other people but with the workings of material things. It is no longer natural to try to understand nature through social relations, rather, we understand it through machines, through matter whose workings we find comfortably familiar. It is well
known that the understanding of gases in the nineteenth century was modeled on the behavior of miniature billiard balls—for nineteenth-century scientists in Europe know the billiard table better than they knew, for example, their servants. Alienation is widely held to be the characteristic state of modern man: the point call be overstated, but it cannot be denied. . . . [Horton’s] story works so well that it is hard not to feel that there is something right about it; it would indeed explain the preference for agency over matter, the first of the major differences Horton acknowledges between traditional religion and science.

And yet this cannot be quite right. All cultures—in modest mood, I might say, all the cultures I have knowledge of—have the conceptual resources for at least two fundamental sorts of explanation. On the one hand, all have some sort of notion of what Aristotle called “efficient” causation: the causality of push and pull through which we understand the everyday interactions of material objects and forces. On the other, each has it notion of explanation that applies paradigmatically to human action, the notion that the American philosopher Daniel Dennett has characterized its involving the “intentional stance.” This sort of explanation relates actions to beliefs, desires, intentions, fears, and so on—the so-called propositional attitudes—and is fundamental . . . to folk psychology. We might say, analogously, that efficient causality is central to what cognitive psychologists now call “naive” or “folk physics.”

These kinds of explanations are, of course, interconnected: when I explain the death of the elephant by talking of your need for food, your hunt, your firing the gun, there are elements of folk physics and of folk psychology involved in each stage on this narrative. To say that mechanical explanation is unfamiliar to preindustrial peoples is, of course, to say something true. Mechanical explanation is explanation in terms of machines, which are, of course, exactly what preindustrial cultures do not have. But mechanical explanation is by no means the only kind of nonintentional explanation: there is more to folk physics than a view of machines. And the fact is that the stability of the causal relations of objects in the preindustrial world is surely quite substantial: not only do people make tools and utensils, using the concepts of efficient causation, but their regular physical interactions with the world—in digging, hunting, walking, dancing—are as stable and as well understood as their familial relations. More than this, preindustrial Homo is already Homo Faber, and the making of pots and of jewelry, for example,
involves intimate knowledge of physical things and an expectation of regularity in their behavior. . . .

What we need to bring back into view here is a kind of explanation that is missing from Horton’s story: namely, functional explanation, which we find centrally (but by no means uniquely) in what we might call “folk biology.” Functional explanation is the sort of explanation that we give when we say that the flower is there to attract the bee that pollinates it; that the liver is there to purify the blood; that the rain falls to water the crops.

This sort of explanation is missing from Horton’s story for a very good reason—namely, that the positivist philosophy of science on which Horton relies sought either to eradicate functional explanation or to reduce it to other sorts of explanation, in large part because it reeked of teleology—of the sort of Aristotelian “final” causation that positivism took to have been shown to be hopeless by the failure of vitalism in nineteenth-century biology. And, surely, what is most striking about the “unscientific” explanations that most precolonial African cultures offer is not just that they appeal to agency but that they are addressed to the question “Why?” understood as asking what the event in question was for. Evans-Pritchard in his account of Zande belief insists that the Azande do not think that “unfortunate events” ever happen by chance7 their frequent appeal to witchcraft—in the absence of other acceptable explanations of misfortune—demonstrates their unwillingness to accept the existence of contingency. But to reject the possibility of the contingent is exactly to insist that everything that happens serves some purpose: a view familiar in Christian tradition in such formulas as “And we know that all things work together for good to them that love God” (Rom. 9:28), or in the deep need people feel—in Europe and America as in Africa—for answers to the question “Why do bad things happen to good people?” Zande witchcraft beliefs depend on an assumption that the universe is in a certain sort of evaluative balance: in short, on the sort of assumption that leads monotheistic theologians to develop theodicies.

What Zande people will not accept, as Evans-Pritchard’s account makes clear, is not that “unfortunate events” have no explanation—the granary falls because the termites have eaten through the stilts that support it—but that they are meaningless: that there is no deeper reason why the person sitting in the shade of the granary was injured. And in that sense they share an attitude that we find in Christian theodicy from Irenaeus to Augustine to Karl Barth: that the cosmos works to a plan. Precolonial African cultures, pre- and non-scientific thinkers everywhere, are inclined to suppose that events in the
world have meaning; they worry not about the possibility of the unexplained (what has no efficient cause nor agent explanation) but of the meaningless (what has no function, no point). And this marks those who accept the scientific worldview—a minority, of course, even in the industrialized world—from almost all other humans throughout history. For it is a distinctive feature of that scientific worldview that it accepts that not everything that happens has a human meaning. To explain this difference between scientific and nonscientific visions we need, I think, to begin with the fact that the world, as the sciences conceive of it, extends so hugely far beyond the human horizon, in time as in space. As Alexandre Korye indicated in the title of his well-known study of the birth of modern celestial physics, the Newtonian revolution took the intellectual path *From the Closed World to the Infinite Universe*, and the Victorian dispute between science and religion had at its center a debate about the age of the earth, with geology insisting that the biblical time scale of thousands of years since the creation radically underestimated the age of our planet. Copernicus turned European scientists away from it geocentric to it heliocentric view of the universe and began it process, which Darwin continued, that inevitably displaced humankind from the center of the natural sciences. A recognition that the universe does not seem to have been made simply for us is the basis of the radically nonanthropocentric character of scientific theories of the world. This nonanthropocentrism is part of the change in view that develops with the growth of capitalism, of science, and of the modern state, the change to which, for example, Weber’s account of modernization was addressed, and it contributes profoundly to the sense of the universe as disenchanted that Webers have taken to be so central a feature of modernity (a claim that makes more sense as it claim about the life of professional intellectuals than as one about the culture as it whole).

But Horton in his original work made, as I said, it second important claim for difference: he summarized it by calling the cognitive world of traditional cultures “closed” and that of modern cultures “open.” “What I take to be the key difference is a very simple one,” he writes. “It is that in traditional cultures there is no developed awareness of alternatives to the established body of theoretical tenets; whereas in scientifically oriented cultures, such an awareness is highly developed.” And it is here, when we turn from questions about the content and logic of traditional and scientific explanation to the social contexts in which those theories are constructed and mobilized, that Horton’s account begins to seem less adequate.
The early modern natural scientists, the natural philosophers of the Renaissance, stressed often the unreasonableness of appeals to authority. And if modern scholarship suggests that they overstressed the extent to which their predecessors were bound by a hidebound traditionalism, it is still true that there is a difference—if only in degree—in the extent to which modernity celebrates distance from our predecessors, while the traditional world celebrates cognitive continuity.

Now Horton’s account of the sense in which the traditional worldview is closed has—rightly—been challenged. The complexities of war and trade, dominance and clientage, migration and diplomacy, in much of precolonial Africa are simply not consistent with the image of peoples unaware that there is a world elsewhere. . . .

It is also possible to find first-rate speculative thinkers in traditional societies whose individual openness is not to be denied. I think here of Ogotemmêli, whose cosmology Griaule has captured . . . and Barry Hallen has provided evidence from Nigerian sources of the existence, within African traditional modes of thought, of styles of reasoning that are open neither to Wiredu’s stern strictures nor to Horton’s milder ones. . . . Horton’s original stress on the “closed” nature of traditional modes of thought does look less adequate in the face of Africa’s complex history of cultural exchanges and of Hallen’s babalawo, or in the presence of the extraordinary metaphysical synthesis of the Dogon elder, Ogotemmêli. . . . In a recent book—written with the Nigerian philosopher J. O. Sodipo—Hallen insists on the presence among Yoruba doctors of theories of witchcraft rather different from those of their fellow countrymen. Here, then, among doctors, speculation inconsistent with ordinary folk belief occurs. . . .

Horton has recently come—in response, in part, to Hallen’s critique—to speak not of the closedness of traditional belief systems but, borrowing a term from Wole Soyinka, of their being “accommodative.” He discusses work by students of Evans-Pritchard that not only addresses the kind of static body of belief that is captured in Evans-Pritchard’s picture of the Azande thought world but also stresses the dynamic and—as Horton admits—“open” way in which they “devise explanations for novel elements in experience,” and “their capacity to borrow, re-work and integrate alien ideas in the course of elaborating such explanations.” “Indeed” he continues, “it is this ‘open-ness’ that has given the traditional cosmologies such tremendous durability in the face of immense changes that the twentieth century has brought to the African scene.” Horton then contrasts this accommodative
style with the “adversary” style of scientific theory, which is characterized by the way in which the main stimulus to change of belief is not “novel experience but rival theory.”

And it seems to me that this change from the Popperian terminology of “open” and “closed” allows Horton to capture something important about the difference between traditional religion and science; something to do not with individual cognitive strategies but with social ones. If we want to understand the significance of social organization in differentiating traditional religion and natural science, we call do no better than to begin with those of Evans-Pritchard’s answers to the question why the Azande do not see the falsity of their magic beliefs that mention social facts about the organization of those beliefs.

Evans-Pritchard wrote:

Scepticism, far from being smothered, is recognized, even inculcated. But it is only about certain medicines and certain magicians. By contrast it tends to support other medicines and other magicians. . . . Each man and each kinship group acts without cognizance of the actions of others. People do not pool their ritual experiences. . . . They are not experimentally inclined. . . . Not being experimentally inclined, they do not test the efficacy of their medicines.

And, he added, “Zande beliefs are generally vaguely formulated. A belief, to be easily contradicted by experience . . . must be clearly shared and intellectually developed.”

Whatever the practices of imperfect scientists are actually like, none of these things is supposed to be true of natural science. In our official picture of the sciences, skepticism is encouraged even about foundational questions—indeed, that is where the best students are supposed to be directed. . . . The scientific community is experimentally inclined, and, of course, scientific theory is formulated as precisely as possible in order that those experiments can be carried out in a controlled fashion. . . . [S]cience is, crucially, adversarial, and the norms of publication and reproducibility of results, even though only imperfectly adhered to, are explicitly intended to lay theories and experimental claims open to attack by one’s peers, and thus make competition from the adventurous “young Turk” possible.

More important than the hugely oversimplified contrast between an experimental, skeptical, science and an unexperimental, “dogmatic” traditional mode of thought is the difference in images of knowledge that are represented in the differences in the social organization of inquiry in modern as
opposed to “traditional” societies. Scientists, like the rest of us, hold onto theories longer than they may be entitled to; suppress, unconsciously or half consciously, evidence they do not know how to handle; lie a little. In pre-colonial societies there were, we can be sure, individual doubters who kept their own counsel, resisters against the local dogma. But what is interesting about modern modes of theorizing is that they are organized around an image of constant change: we expect new theories, we reward and encourage the search for them, we believe that today’s best theories will be revised beyond recognition if the enterprise of science survives. My ancestors in Asante never organized a specialized activity that was based around this thought. They knew that some people know more than others, and that there are things to be found out. But they do not seem to have thought it necessary to invest social effort in working out new theories of how the world works, not for some practical end (this they did constantly) but, as we say, for its own sake.

The differences between traditional religious theory and the theories of the sciences reside in the social organization of inquiry, as a systematic business, and it is differences in social organization that account, I think, both for the difference we feel in the character of natural scientific and traditional religious theory—they are products of different kinds of social process—and for the spectacular expansion of the domain of successful prediction and control, an expansion that characterizes natural science but is notably absent in traditional society. Experimentation, the publication and reproduction of results, the systematic development of alternative theories in precise terms, all these ideals, however imperfectly they are realized in scientific practice, are intelligible only in an organized social enterprise of knowledge.

But what can have prompted this radically different approach to knowledge? Why have the practitioners of traditional religion, even the priests, who are the professionals, never developed the organized “adversarial” methods of the sciences? There are, no doubt, many historical sources. A few, familiar suggestions strike one immediately.

Social mobility leads to political individualism, of a kind that is rare in the traditional polity; political individualism allows cognitive authority to shift, also, from priest to king to commoner; and social mobility is a feature of industrial societies.

Or, in traditional societies, accommodating conflicting theoretical views is part of the general process of accommodation necessary for those who are bound to each other as neighbors for life. . . . In Ghana, but not in America, it
is impolite to disagree, to argue, to confute. And this accommodating approach to conversation is part of the same range of attitudes that leads to theoretical accommodations.

[It] seems to me that there is one other fundamental difference between traditional West African culture and the culture of the industrial world, and that it plays its fundamental role in explaining why the adversarial style never established itself in West Africa. And it is that these cultures were largely nonliterate.

Now literacy has, as Jack Goody has pointed out in his influential book *The Domestication of the Savage Mind*, important consequences; among them is the fact that it permits a kind of consistency that oral culture cannot and does not demand. Write down a sentence and it is there, in principle, forever; that means that if you write down another sentence inconsistent with it, you can be caught out. It is this fact that is at the root of the possibility of the adversarial style. How often have we seen Perry Mason—on television in Ghana or the United States or England (for television, at least, there is only one world)—ask the stenographer to read back from the record? In the traditional culture the answer can only be: “What record?” In the absence of written records, it is not possible to compare the ancestors’ theories in their actual words with ours; nor, given the limitations of quantity imposed by oral transmission, do we have a detailed knowledge of what those theories were. We know more about the thought of Isaac Newton on one or two subjects than we know about the entire population of his Asante contemporaries.

The accommodative style is possible because orality makes it hard to discover discrepancies. And so it is possible to have an image of knowledge as unchanging lore, handed down from the ancestors. It is no wonder, with this image of knowledge, that there is no systematic research: nobody need ever notice that the way that traditional theory is used requires inconsistent interpretations. It is literacy that makes possible the precise formulation of questions that we have just noticed as one of the characteristics of scientific theory, and it is precise formulation that points up inconsistency. This explanation, which we owe to Horton, is surely very plausible.

Write, then, and the demands imposed by the distant, unknown reader require more universality, more abstraction. Because our reader may not share the cultural assumptions necessary to understand them, in contexts where communication of information is central our written language becomes less figurative. And so another nail is beaten into the coffin of the inconsistencies of our informal thought.
For if we speak figuratively, then what we say can be taken and reinterpreted in a new context; the same proverb, precisely because its message is not fixed, can be used again and again. And if we can use it again and again with different messages, we may fail to notice that the messages are inconsistent with each other. After all, the proverb is being used now in this situation, and why should we think of those other occasions of its use here and now? . . .

The literacy of the period immediately preceding the scientific revolution in Europe differed in at least one crucial respect from that of the High Middle Ages and of antiquity: it was beginning to be widespread. Through printing it had become possible for people other than clerics and the very rich to own books. There are many factors . . . that make possible the breakdown of the cognitive authority of the Church in the Reformation, but for the purposes of it comparison with contemporary Africa, indeed with the contemporary developing world, printing, with the independence of mind that it breeds, is crucial.

We all know of the significance of printing in the spread of Bible-based Protestantism in the European Reformation, but the importance of widespread literacy for modern Africa was anticipated in nineteenth-century Asante. Some at the Asante court in the late nineteenth century were opposed to the transcription of their language, in part because they were able, in a nation without literacy, to maintain, as they thought, greater control of the flow of information. When they did want to send written messages, they used the literate Islamic scholars who were to be found in the major towns of the West African interior, relying on translation from Twi into Arabic or Hausa, and then back into the language of their correspondents. Now, only a hundred or so years later, a significant majority of the children of Kumasi can write—in English and (to a lesser extent) in Twi. And they can read books, from libraries, and newspapers and pamphlets, on the street, which effectively make it impossible for the authority of Asante tradition to remain unchallenged.

Let me say, finally, why I think that the gap between educated Africans and Westerners may not be so wide for much longer, and why all of us will soon find it hard to know, from within, the nature of the traditional. The answer is simple enough: we now have a few generations of literate African intellectuals, and they have begun the process of examining our traditions. They are aided in this by the availability of Western traditions, their access to which, through writing, is no different from Westerners’. This process of
analysis will produce new, unpredictable, fusions. Sometimes, something will have to give. What it will be, I cannot predict, though I have my suspicions, and you will be able to guess what they are if I say that it seems to me that the overwhelming political and economic domination of the Third World by the industrialized world will play its part.

There is evidence that the practical successes of technology, associated with the methods and motives of inquiry that I have suggested, are largely absent in traditional culture. The question whether we ought to adopt these methods is not a purely technical one. We cannot avoid the issue of whether it is possible to adopt adversarial, individualistic cognitive styles, and keep, as we might want to, accommodative, communitarian morals. Cultures and peoples have often not been capable of maintaining such double standards (and I use the term nonpejoratively, for perhaps we need different standards for different purposes), so that if we are going to try, we must face up to these difficulties. Scientific method may lead to progress in our understanding of the world, but you do not have to be a Thoreauvian to wonder if it has led only to progress in the pursuit of all our human purposes. In this area we can learn together with other cultures—including, for example, the Japanese culture, which has apparently managed a certain segregation of moral-political and cognitive spheres. In this respect, it seems to me obvious that the Ghanaian philosopher Kwasi Wiredu is right. We will only solve our problems if we see them as human problems arising out of a special situation, and we shall not solve them if we see them as African problems, generated by our being somehow unlike others.

ENDNOTES


2 John Skorupski has persuaded me that Durkheim does indeed offer this apparently crude argument; see Skorupski’s Symbol and Theory (Cambridge: Cambridge University Press, 1976), chap. 2, for an excellent discussion.

3 . . . This conception of rationality belongs to a family of recent proposals that treat a concept as being defined by the de re relations of agents to the world . . . . As Gettier [1963] showed, a belief can be justified and true, but not a piece of knowledge, because the justification fails to be appropriately related de re to the facts . . . . Similarly, I want to say a belief can be reasonable (subjectively), but irrational (objectively). Since questions of rationality, therefore, raise questions about how other people stand in relation to reality; and since these questions cannot be answered while leaving open, as I wish to do, questions
about who is right, I shall talk from now on about reasonableness rather than rationality. Someone is reasonable, on my view, if they are trying to be rational: if they are trying to act so as to maximize the chance of their beliefs being true.


5 Horton’s most famous paper is his “African Traditional Religion and Western Science.” All my thought on these questions has been stimulated and enlivened by reading and talking with him, and so many of the ideas I shall be offering are his that I make now a general acknowledgement.


7 See Evans-Pritchard, *Witchcraft, Oracles and Magic among the Azande*, chap. 2.


10 Eds. note: In contrast, Mbiti (1969: 266) argues that traditional cosmologies are much diminished for most contemporary Africans precisely because these cosmologies were unable to accommodate the obvious power of scientific thinking. “But precisely because religion became so deeply entrenched and institutionalized in all the different forms of [traditional] African life, it lost its ability to continue exercising supreme control and holding a position of absolute authority once new challenges and radical changes came upon African societies.”

11 This work is in the paper, “Traditional Thought and the Emerging African Philosophy Department: A Reply to Dr. Hallen,” unpublished manuscript.

12 This is not to say that they do not have the concepts necessary to understand the idea of an experiment, merely to say that they are not interested in disinterested experimentation simply to find out how things work. For the Azande are very aware, for example, that an oracle needs to be run carefully if it is to be reliable. They therefore test its reliability on every occasion of its use. There are usually two tests: bambata sima and gingo; the first and second tests. Generally, in the first test, the question is asked so the death of a chicken means yes and in the second so that death means no; but it may be the other way round. Inconsistent results invalidate the procedure. The Azande also have a way of confirming that an oracle is not working; namely to ask it a question to which they already know the answer. Such failures can be explained by one of the many obstacles to all oracle’s functioning properly: breach of taboo;
witchcraft; the fact that the benge poison used in the oracle has been “spoiled” (as the Azande believe) because it has been near a menstruating woman.


14 Eds. note: For example, Hallen describes Chief Z, the Yoruba babalawo, as knowing that his clients must be deceived concerning the true efficacy of his empirical medical knowledge of herbs.