

Introduction

A few years ago, in the small town in which I lived in upstate New York, there was a villagewide power blackout. Although it was nearly 2:30 in the morning, I couldn't resist going outside. Nothing was lit; the night was as black as the ocean. Looking up, I could see the thousands of stars that are normally lost to the light pollution of modern civilization. As I did so, I began to reflect on what it must have been like to live in the Dark Ages of human life, before the scientific revolution and modern technology. Of course, the Dark Ages weren't literally dark; presumably they had sunlight during the day and torches and candles at night. But the metaphor is apt; for total darkness does make one reflect on the progress that humans have made and the scope of what we today take for granted.

What would it feel like to live in a Dark Age? Would you realize it? Or would you just see the achievements of the day—perhaps even feeling lucky to live in such “modern times”—and fail to see all that had *not* been achieved. Of course, no one living in a Dark Age would call it that; rather this label is placed on a backward era only by a later one, in which the state of human civilization is more advanced. With the benefit of

hindsight, it is easier to see what has been missed. But isn't there nonetheless some way to judge one's own era?

Look around you. We live in a time of enormous technological achievement, when we are able to bend nature to our will, and yet we suffer from the same social problems that have plagued the human race for millennia. Despite the enormous progress that we have made in our understanding of nature, who can honestly say that the bulk of the problems that are the cause of human misery today are not of our own creation? And yet what have we done about them?

The comparison between our success in understanding nature and our failure to understand ourselves is vast. We have satellites and fax machines that transmit stories of barbarous cruelty that could have been told by our ancestors. We have ever more sophisticated weaponry of war and yet no true understanding of what causes war in the first place. Terrorism, crime, war, and poverty continue unchecked throughout the world, largely because we lack the understanding to stop them. We are as ignorant of the cause-and-effect relations behind our own behavior as those who lived in the eighth or ninth centuries once were of those behind disease, famine, eclipses, and natural disasters. We live today in what will someday come to be thought of as the Dark Ages of human thought about social problems.

What were the first Dark Ages like? And why are they called that? The Dark Ages are one of the most intriguing periods of human history. They mark a nearly 600-year blank spot in the progress of human civilization in which the knowledge of antiquity almost completely disappeared from the West. It was a time when few people received any sort of education whatsoever, and life was governed by the superstitions and fears fueled by ignorance. In terms of the exploration of ideas and the

quality of human life, the Dark Ages were indeed dark; they always seem to me a temporal analogy to the huge blank spaces on ancient maps of the world that are marked “unknown.”

Although scholars differ as to the exact beginning and ending dates of what should properly be called the Dark Ages, they are normally taken to occupy the period of time from the fifth to the eleventh centuries A.D., sometimes also known as the Early Middle Ages. The Middle Ages themselves occupy a nearly 1,000-year span of time between the period of classical antiquity (which reached its height in the Greek and Roman empires and ended with the fall of Rome in 476 A.D.) and the Renaissance of the fifteenth and sixteenth centuries in Europe (which saw the rebirth of learning in the West). Hence the name “Middle Ages” is given to the time between these two great eras in which human knowledge flourished, which lasted from roughly the 400s to the 1400s A.D.

What is the difference between the Dark Ages and the Middle Ages? Scholars of the medieval period will be quick to point out the political and economic changes that occurred during the High Middle Ages of the twelfth century and the important ideas of various Scholastic thinkers from this period. It is a mistake, they will argue, to use the terms *Dark Ages* and *Middle Ages* synonymously. And yet—in terms of the creative advancement of human thought beyond the dominant paradigm of medieval Christianity—there were no significant breakthroughs in art, science, philosophy, or literature during this time.

Then came the Renaissance, first in Italy, then to spread throughout Europe. During this period, thinkers began to recover, and to be influenced by, the learning of antiquity, and great advances were made in art and literature. The philosophy of humanism was born, and with it came a focus on the role

that human reason might play in directing the course of our lives, challenging the hegemony of Christianity.

The Renaissance came last to the sciences, beginning with Copernicus's publication of a new theory of the universe in 1543, which spawned the scientific revolution of the sixteenth and seventeenth centuries that brought us Kepler, Galileo, and Newton. During this period, scientists sought and discovered many of the great laws of nature by employing a methodology using experimentation, the application of mathematics, and a belief that there was a natural order to the universe. It is the success of this viewpoint that has led to all of the modern achievements of science, even to the present day. Indeed, if one is bold enough to defy historical convention for a moment in order to focus exclusively on the sciences, one might usefully—albeit loosely—think of the Dark Ages for the natural sciences as extending from the period following the birth of scientific reasoning by the Greeks and the great technological advances of the Roman Empire (which ended in the fifth century), all the way to the scientific revolution of the sixteenth and seventeenth centuries—a period of almost 1,100 years.

Seen from this historical context, it is clear that scientific reasoning is a rare and fragile thing and that its advances can be impeded or even extinguished altogether if given the wrong set of cultural conditions. Indeed, knowing this, we would be wise to ask ourselves what remaining barriers might stand in the way of the extension of scientific reasoning into new domains. Did the scientific revolution extend as far as it might have? Can scientific inquiry be brought to the remaining areas of human ignorance, far beyond those probed even by the greatest minds of antiquity and the Renaissance? Now that we have seen how successful science can be in answering some of the long-

standing questions that humans have asked about the natural world, might we employ it in trying to understand the greatest remaining blank spot on the map of human knowledge: the causes of human behavior?

Of course, the skeptics will say that this is impossible—that despite the best efforts and ambitions of the Enlightenment, many thinkers have tried and failed to establish the scientific study of human behavior. From Francis Bacon to the logical positivists, the holy grail of understanding human action within the context of a precise scientific calculus has remained an elusive dream of Western thought. But why? Many will argue that it is because human beings are unique and not subject to scientific treatment. Are we not conscious of the forces that move us? Do we not have free will to change them?

In the years that have passed since the inception of the scientific revolution, numerous scholars have meditated on the reasons that we have waited so long for a revolution in the social sciences. Grown bitter over time, the consensus of such scholars today seems to be that such a revolution is never coming. In the interim, an impressive array of arguments has been formulated that attempt to show why it is impossible to employ a scientific mode of understanding in the study of human behavior. And, like jilted lovers, the number of scholars who are receptive to such arguments has grown over time, until today the voices against the prospects for a science of human behavior drown out all others.

In advocating a science of human behavior, I have taken seriously the idea that there are powerful arguments against it, and I have spent the better part of my career examining them. A few years ago, I wrote a scholarly book, *Laws and Explanation in the Social Sciences: Defending a Science of Human Behavior*, in which

I systematically analyzed all of the major arguments against a science of human action. And the conclusions I came to were shocking. Not only were the arguments weak, they were so weak that I became convinced that even their advocates did not really believe them. I began to see that by and large, the arguments put forward were not meant to convince someone who seriously wanted to advocate a science of human behavior. Rather, they were mere window dressing—a peg on which to hang the prejudices and fears of those who did not want to have a social science in the first place. Thus, I came to the conclusion that the primary reason that we do not today have a science of human behavior is not that it is impossible; it is that we fear the threat that such a science might pose for our cherished religious or political beliefs about human autonomy, environmental determinism, race, class, and gender. In short, I believe that—just as in the study of nature 400 years ago—the primary barrier to a science of human behavior is ideological. Political ideology is today doing to social science what religious ideology did to natural science in the first Dark Ages.

Some things never change. Resistance to knowledge has always characterized periods of great scientific advance. When a new paradigm threatens the reigning religious or political order, we manufacture congenial but weak arguments against it. Many of the contemporary arguments against a science of human behavior are rooted in a naive misunderstanding of the nature of scientific progress and work against a true “social science” only if we are prepared to believe that science has already had its last victory. Time and again, however, science has overcome such prejudices and replaced convenient myths with testable theories. The scientific truths that we today take for granted seem obvious to us only because of the courage of those who fought for them

against earlier prejudice. I argue that we must now be willing to make this same effort on behalf of the new scientific frontier: empirical inquiry into the causes of human action.

I came to write this book precisely because I think that the majority of philosophers and social scientists working today do not have such courage, and have sought to smother the public's desire for a precise understanding of our social problems under the forces of political correctness. Afraid of what we might find out about ourselves, today's academics have stood in the way of a science of human behavior in precisely the same way that religious clerics attempted to stunt the scientific revolution of Copernicus and Galileo. Having abdicated their responsibility to improve the human condition, many of today's scholars satisfy themselves with the status quo in social science, feeling that it is preferable to preserve the myths that we harbor about the causes of our actions rather than attempt a systematic study that may topple the idols of political fashion. Thus does ideology take precedence over empirical investigation; we fiddle while the world burns.

By contrast, I hope to show that there is something that we can do about the current situation in the social sciences—that just as the human race once saw its way clear from the ignorance and superstition that had dominated its thinking about nature, culminating in the scientific revolution, we may now take the first steps toward a social scientific revolution in which we come to understand the true forces behind our social ills, and so may build an improved human society on this basis. But, I argue, we may do this only if we take seriously the idea that we have a long way to go in our understanding of human behavior and that the only way to get there is to follow the path lit by science.

This is not a traditional academic book. I owe its inspiration, however, to two scholars, both now dead, who were not content to see their work have influence only in academic circles, but instead sought to bring learned debate to the attention of a larger audience, in the hope that by addressing some of the great social dilemmas of our time, we could do something about them. The first is someone I never met, James Harvey Robinson, who believed in putting learning in the service of human betterment and also in the hands of the public. His important book *The Mind in the Making* (1921) (a best seller in its day) long ago highlighted the folly of the human condition: When we have the tools to improve our situation, why do we tarry?

The second scholar is someone whose life touched my own and who served as an inspiration of a first-rate scholar who never lost sight of her obligation to improve the social world. Barbara Wootton's *Testament for Social Science* (1950), like Robinson's earlier book, sought to make the case for a science of human action, at a time (just following World War II) when we most needed to hear the message.

In this book I have sought to follow in their footsteps and engage a wider audience in what is arguably the most important debate there is over the future of the human race. The stakes could not be higher. The issues at hand affect us all and should not be locked up in the hands of only a few professors. With this in mind, I have tried to write this book in an accessible style, with few footnotes and virtually no professional jargon, in an attempt to reach the broadest possible audience. In doing so, I hope to engage those readers, both inside and outside the academy, who long to make social change by improving the horrifying social conditions that will long affect human life until we have the courage to do something about them.