Who is to be master, you or the modern world? The world fills your mind from all sides with conversation, lectures, newspapers, TV, and the Internet. You must be the gatekeeper that filters out what is worth remembering and decides what is true or false. Otherwise, you are at its mercy and drift though a life that you manage only day by day. An encyclopedia of facts, and names, and places will not save you. I suspect that the moment you see a term like the naturalistic fallacy (what exactly does that mean?) or confounding variable, you stop reading. And if it is clear that an article is a piece of economic analysis, you never start. Unless you have concepts that make you feel confident that you can evaluate what you hear or read, your only defense is to stop listening. How often have you felt degraded because you know you are casting your vote on personalities, rather than a mature evaluation of the government’s economic or foreign policy? Even worse is self-deception: we tell ourselves that policies are “socialist” or “reactionary,” “imperialist” or “isolationist,” even though deep in our hearts we know we are hiding our ignorance behind a word.

I have put my heart into over 50 years of university teaching, at places ranging from Cornell and Maryland in America to Canterbury and Otago in New Zealand. It drives me crazy that there are all these bright young people at universities, and yet, when they graduate, we have not taught them how to think. Despite the scores of lectures and tutorials, the hours of marking and feedback, that I lavished on each of my students, I do not believe I gave them what I value most in thinking my way through life. This book will give you 20 Key Concepts that will empower you to analyze critically what you read, what you hear, and what you see. Without them, your mind does
Introduction: The Knowledge Trap

not have a full tool kit to fashion your own views on ethics, religion, history, economics, international politics, even what you should eat.

I hope I have written it in an accessible style. At times, I speak as if it were directed to those who are disappointed in what they got from their university education. However, some of the most critically aware people I know did not go beyond secondary school and do not intend to do so. If you are one of these, I have not written you off. If you persevere, you will not have the in-depth knowledge or specialized expertise of a graduate of distinguished universities like Oxford and Cambridge, Harvard and Princeton, Toronto and Queen’s, Sydney and Melbourne, Auckland and Otago, but you will be able to out-think most of their graduates at that crucial moment when you make up your own mind.

Wherein I Seek Rapport with the Reader

In this book, I will expose you to my own take on the modern world, but I would be most disappointed if I made converts. Everyone who has a critical mind reaches conclusions that other critical minds reject. There is a difference between the conceptual tools you need to comprehend the modern world and integrating what you learn into a comprehensive vision. Social criticism has led me to views on political economy more palatable to the left than to the right, to the conclusion that religious fundamentalism and postmodernism are enemies of science, and to a perspective on international relations that favors internationalism over nationalism. It would have been “safer” to disguise my vision, but I feel that would destroy your incentive to do critical thinking. What makes it exciting is that it eventually gives you confidence in your ability to paint a picture of the human condition that you can defend.

If we all have a good tool kit, why do we not all agree? Certain beliefs and values are more fundamental than analysis. Assume that two people agree that intelligent design cannot serve as an alternative to the theory of evolution, and that the traditional proofs of God’s existence are not valid. One may have a personal faith that he considers authentic, and the other may believe that faith is simply social indoctrination. None of our 20 concepts will unite these two in the sense of making both of them believers or both atheists. Assume two people have the basic tools they need to analyze market behavior, and both agree that providing greater economic equality for the present generation means less economic growth over the
next generation. No conceptual tool can unite them if one places a greater value on equality, and the other a greater value on more material progress.

And then there is the fact that you must know things about the modern world to have anything to analyze. Everyone’s knowledge will be selective to some degree. Even if you were omniscient, new knowledge comes along that may change your perspective. Take the assumption that greater equality of income and possessions impedes growth. There has always been squabbling about whether this is in fact true in the sense that there seem to be outstanding exceptions, like Sweden, a nation with a high degree of equality and generally high growth. But unless you can say just why equality might promote growth, you are left with argument from brute facts that can be explained away. Sweden may be a special case, small, relatively few immigrants, less ethnic diversity, nothing more than an exception that proves the rule.

After I finished this book, I found a paper from 2006 (what negligence that I had overlooked it) by Sam Bowles (an economist I respect) and Arjum Jayadev (Jayadev and Bowles, 2006). They go beyond brute facts to show why inequality can impede growth, namely, the more unequal a society, the more people are employed in “guard labor.” This is a kind of labor that simply supports economic hierarchies in the sense of protecting the power and prerogatives of those at the top and keeping those at the bottom from threatening them. Guard labor is, therefore, unproductive in terms of promoting growth.

They hold that fully 24% of the labor force of America (a very unequal nation) play such a role, ranging from protecting property from those without property (guards, surveillance cameras, those who run the courts and prisons, those in prison, and at times, using troops to quell internal discontent) to supervisors who spend their time ensuring that alienated workers toe the line. I may not fully understand their thesis in that I would have thought that a large proportion of professionals qualify as “guard labor,” not just lawyers and judges in criminal cases, but trust lawyers, tax accountants, lobbyists that protect various business interests, and so forth. Clearly, I have some reading to do.

The point is this: a basic grasp of economics (which this book will give you) is a prerequisite for making up your mind on economic policy, but it is not a sufficient condition. You have to expand your knowledge base.

For now, you will have to be content with what one book can offer: 20 tools that will allow you to confront the modern world and begin to construct your own vision. Ninety percent of it is just as relevant for those
who reject my peculiar stance as for those who share it, and everyone will be far more able to defend their position after reading it than before. I will try to banish confusions that absolutely prohibit understanding: naive faith in rent, price, and wage controls; appeals to nature in moral argument; rejecting science as merely one point of view among many; and so forth. And best of all, you may gain the confidence that you can think your way through the modern world, rather than be at its mercy.

Key Concepts and Anti-Keys

Over the last century and a half, philosophy, social science, economics, and natural science have enriched our language by giving us some wonderful words and phrases. Each of these stands for a cluster of interrelated ideas that collectively create a method of analysis. I call them “Key Concepts” because they share the property of virtually forcing you to do critical analysis. As someone who has written broadly about controversial issues in ethics, politics, science, the theory of intelligence, race differences in intelligence quotient (IQ), US foreign policy, and even a bit about economics and the history of America’s ethnic groups, I have found 15 of them to be indispensable.

There are other concepts that superficially resemble the Key Concepts but are actually wolves in sheep’s clothing. They pretend to offer a method of analysis, but the method is either mere words or bankrupt in some other way. I call them “Anti-Keys” because, either by accident or by design, they discourage the use of critical analysis, usually by disparaging science because their users are uncomfortable with it or misunderstand it. I will add five of them to the 15 true keys to make a list of 20. I will list them in the order they appear in the text. For the Keys, I will add the dates they entered educated usage (most dates from the Oxford English Dictionary online), and note the disciplines that invented them. Most of the Anti-Keys are as old as humankind.

Universalizability (1785: Moral Philosophy)

Immanuel Kant first formulated this rule. He thought it could settle virtually all moral questions, but modern thinkers have clarified it and restricted its use. It essentially says that if you state a moral principle, you must stand by it with logical consistency: you cannot praise generosity one day and condemn it the next day (without pointing to some relevant difference).
Introduction: The Knowledge Trap

This makes it sound very humdrum, but you will be surprised how it clarifies moral debate. For example, it puts classical racists in an impossible position. They must say either that they would be subhuman if their skin turned black or that they are superior to black people for some trait like intelligence, which invites evidence to the contrary.

*Tautology/Falsifiability (1800: Logic)*

We abuse logic when we use it to give a fraudulent defense of something. This is done mainly by deceptive tautologies, that is, statements that appear to be claims about facts but actually banish facts from consideration. Take the claim that the Scots, unlike the English, are a noble people. If you point to a Scot who is a liar and a villain, you may be told, “Ah, he is nay true Scot.” The tautology, only good Scots count as Scots, is implicit. The honor of any group can be defended by a definition of the group that excludes the wicked. The Scot in question has used words to define bad Scots out of existence. Nothing counts against the goodness of Scots, which is a cheat.

Karl Popper (1902–1994) used the concept of falsifiability to expose the misuse of tautologies. If anyone makes a claim of fact, ask him what evidence would count against it. If they say nothing, it is just empty words. It is also tempting to misuse the concept of a tautology to discredit something. Darwin’s theory of evolution has many enemies. The more sophisticated ones say that it is just an empty tautology, and I will show that they are mistaken. I will also address the naïve enemies of evolution, that is, those who believe in something called intelligent design.

*Naturalistic Fallacy (1903: Moral Philosophy)*

One should be wary of arguments from facts to values. For example, the mere fact that execution does not deter potential murders (if it is a fact) does not entail that capital punishment is wrong. You may have values (an eye for an eye) that render the fact not decisive.

*Tolerance School Fallacy (2000: Moral Philosophy)*

Perhaps you have heard someone say, “Do not be judgmental.” This makes tolerance the supreme virtue, which is very odd given all the behavior we should not tolerate such as profiting from human misery. There is a fallacious argument that lends such an attitude respectability: it argues that we should
respect whatever anyone values because we cannot show that any value is better than another. It makes the attempt to justify your ideals suspect as a supposed source of intolerance. It surfaced in William James, was embraced by anthropologists such as Ruth Benedict, and is now propagated by postmodernists who think they have invented it. Somehow my label for this mistake has not caught on, but no doubt that is merely a matter of time.

**Contrary to Nature**

This is an “Anti-Key.” If you really grasp the naturalistic fallacy, you may be already immune to it. But it deserves analysis because it does so much mischief. By calling something “unnatural,” the speaker labels it intrinsically wrong in a way that is supposed to bar investigation of its consequences including beneficial ones. Nature never tells us that something is either right or wrong. It does not condemn gays; we do.

**Random Sample (1877: Social Science)**

People are often skeptical of a poll because the sample is relatively small. They are mistaken. If the sample is truly random, it does not have to be very large. A random sample is one selected strictly according to chance. If it seems odd that this makes it reliable, note that the only alternative to chance is to introduce a bias. In 1936, the Literary Digest conducted a huge telephone poll that showed that Landon was going to beat Roosevelt for President. However, in those days, few had telephones except the more affluent. The poor were for Roosevelt, and he won in a landslide.

**Intelligence Quotient or IQ (1912: Social Science)**

In 1905, Alfred Binet published the first modern mental test. In 1912, the German psychologist William Stern introduced the concept of an “IQ.” Each child was to be given a score that conveyed whether he or she was typical of children of the same age, or matched the performance of younger or older children. IQ tests may be unpopular today, but I can vouch for the fact that they still determine the fate of many people, ranging from convicts on death row, to those who need a disability benefit, to those who want to be classified as gifted.

Few members of the public fully understand what IQ scores mean, and confusion about their significance is almost universal. IQ scores are
Introduction: The Knowledge Trap

significant because they correlate with valuable achievements such as doing well in school. To evaluate them, you will have to learn what a correlation is, and that is founded upon a concept called “regression to the mean.”

Placebo (1938: Medicine)

Merely being given a sugar pill (that the patient hopes will work) often relieves the patient’s symptoms. A placebo is something that has no beneficial effects aside from those conferred by the subject’s faith in it. Without the notion of a placebo, a rational drugs policy would be overwhelmed by the desperate desire for a cure by those stricken with illness.

Charisma Effect (1922: Social Science)

When a technique is applied by a charismatic innovator or disciples fired by zeal, it may be successful for precisely that reason. Patients or students feel that they are being noticed and benefit psychologically, and are spurred on by the excitement of the enterprise.

Control Group (1875: Social Science)

Placebo and charisma effects are special cases of confounding variables. A confounding variable is anything that may blur what you are trying to assess. We introduce an enrichment program in which pre-school children go to a “play center” each day. It is designed to raise the IQ of children at risk of being diagnosed as mentally retarded. Throughout the program, we test their IQs to monitor progress. Assume that at the end of the program, they have higher IQs.

The question arises: what has raised their IQs? Was it really the educational program? Or was it all the others things that were done, such as getting them out of a dysfunctional home for 6 h each day, the lunch they had at the play center, the continual exposure to IQ tests. The only way to nullify the effects of confounding variables is to use a control group. You must select a group from the same population and subject them to everything except the enrichment program. Then you may get your answer.

The Sociologist’s Fallacy (1973: Social Science)

Sometimes you think you have made a fair comparison between groups, but they are mismatched because they are part of a larger group. For example,
you find that the IQs of professionals have dropped from one generation to the next, and you assume that the professions have lost some of their allure (bright people are beginning to prefer other jobs). This ignores the fact that the percentage of professionals has risen dramatically over 30 years. Say it has increased from the top 10% of the population to the top 30%. Well, the top 30% cannot have the same intelligence advantage over the average person as the top 10% does, so the decline in the IQ of professionals may have been precisely because more people wanted to be professionals.

This kind of mistaken matching of groups for comparison is called the sociologist’s fallacy, which is rather unfair in that sociologists are more aware of it than most academics.

**Percentage (1860: Mathematics)**

It seems incredible that this important Key Concept made its debut into educated usage less than 150 years ago. The concept of a percentage is an introduction to the closely related concepts of a rate and a ratio. Its range is almost infinite. Recently in New Zealand, there was a debate over the introduction of a contraceptive drug that kills some women. It was pointed out that the extra fatalities from the drug amounted to 50 in one million (or 0.005%), while without it, an extra 1000 women (or 0.100%) would have fatal abortions or die in childbirth. It was heartbreaking how many journalists never got beyond telling their audience that it was a “dangerous” drug.

**Market (1776: Economics)**

With Adam Smith, this term was altered from the merely concrete (a place where you bought something) to an abstraction (the law of supply and demand). It provokes a deeper analysis of innumerable issues. If the government makes university education free, it will have to budget for more takers. If you pass a minimum wage, employers will find unskilled workers more expensive to hire. They may replace them with machines that employ skilled workers instead. This is not to imply that minimum wage legislation is wrong, but merely that it has to have advantages that outweigh its unwelcome consequences.

**Reality is a Text**

The phrase behind this Anti-Key comes from Jacques Derrida (1930–2004), but it sums up the anti-science of our time. Those who use it are reluctant
to state plainly what it means because its plain meaning is ridiculous: that the physical universe is a blank slate on which we can impose whatever subjective interpretation we like. The evidence against the assertion that all theories are equally explanatory/non-explanatory was refuted every time Derrida put on his spectacles. The theory of optics explained why they worked, and nothing else does so.

This Anti-Key distracts us from what science does (explaining the real world) into the blind alley of classifying the different kinds of texts we “impose” on the world. At its best, it merely copies the distinctions made by orthodox philosophy of science, which is careful to emphasize that some of these “texts” contain truths attested by evidence (physics), while others do not (aesthetic categories). Usually, it blurs these distinctions and asserts that they are all merely subjective, as if the text of an up-to-date telephone book were not more valuable than the text of an out-of-date one because it tells the truth about something, namely the phone numbers people actually have. If all of this sounds absurd, that is not my fault.

Alternative Histories

One Anti-Key leads to another. If telling the history of the physical universe is subjective, why should not the history of various peoples be subjective? That is, why should it not be told however they tell choose to tell it, giving us black history, Maori history, and so on. Political correctness gives this notion extra fuel. It was considered demeaning if you told a prescientific people that a scientific approach to its past was more authoritative than their own legends. Legends are not reliable history of any sort, although a real historian may find something that is accurate within them. Each people have their own history, but the methods that best reveal what that history really was are the same.

Alternative Sciences

This Anti-Key introduces confusion because it says that the nature of science varies with who does it (male science, Jewish science). In fact, there is only one scientific method: understanding the universe and human behavior by using theories, predictions based on those theories, and attempts at falsifying those predictions by evidence.

The practice of science is flawed in all the ways in which any human endeavor is flawed, that is, the interests and prejudices of scientists color the
problems they investigate, how they go about it, the theories they propose, and the evidence they collect. However, the antidote is better science, not endless and empty assertions that science itself is arbitrary or subjective. The Nazis spoke of Jewish physics as if it was methodologically tainted. It was not: it was simply physics (mainly very good physics) done by Jews. Some feminists have spoken of male science, as if female science was a better alternative. There is no such alternative, although certain women may well do better science than certain men.

*Intelligent Design*

This Anti-Key tries to use God (or gods) to explain what we see in the physical universe in general and the variety of living things on earth in particular. As a proof of the existence of God, it is no more objectionable than other such proofs. For example, recently it has been argued that the conditions for the development of the universe into something interesting (galaxies, planets, people) require laws so delicately balanced that they could not be an accident but must have been legislated by a creator with an intelligent design. However, intelligent design as an alternative to evolutionary biology is entirely counterproductive. It pretends to be a method of investigating nature that discloses signs of order imposed by a rational agent. In fact, it adds nothing to our knowledge of nature. Whenever science is unable to give a full explanation of something, we get nothing better than a monotonous refrain: “it was designed that way.”

*The National Interest (1939/1948: Social Science)*

If you wanted to understand a person’s behavior, you would ask yourself at least three questions. What does his self-interest dictate? Does he always seek his interests, or is he sometimes swayed by friendship (or enmity), and at other times by his self-image, perhaps whether he thinks of himself as unusually virtuous or knowledgeable or both. Modern theories of international relations ask the same questions about nations but have an unfortunate tendency to push one question at the expense of the others.

The concept of the national interest took hold beginning with Carr’s (1939/2004) *The Twenty Years Crisis* and Morgenthau’s (1948) *Politics Among Nations*. The latter awakens some nostalgia in me in that I took Morgenthau’s course at the University of Chicago in 1952. The theory he pioneered was called *realism*, because he argued that the only rational
foreign policy was the pursuit of “national interest” taking into account the realities of the balance of power.

To weaken your nation so as to pursue altruistic goals was irresponsible and condemned as idealism. Political realism never monopolized the theory of international relations thanks to the two competing schools that follow.

**National Affinities (1939/1917: Social Science)**

*Liberalism* is a theory that holds that the relative power of nations is often less predictive of their behavior than whether or not they have some affinity with one another, that is, shared culture, or are economically dependent on one another, or all have democratic government. The original realists called this particular brand of idealism “Wilsonian idealism.” They attributed it to Woodrow Wilson, the US President who was the architect of the League of Nations (parent of the United Nations) at the end of World War I.

**National Identity (1989: Social Science)**

*Constructivism* holds that every nation has a unique national identity shaped by its sense of itself, that is, its values, mores, culture, institutions, and history. Nicholas Onuf coined the term in his book *World of Our Making* (Onuf, 1989). That makes three schools of international relations theory. Since each of these schools has a share of the truth, it seems odd that they all did not merge into one, but there is nothing to prevent you from using all three of their basic concepts to get a real understanding of how nations behave.

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**Box 1.1 Keys replace SHAs**

Readers of my book, *What is Intelligence: Beyond the Flynn Effect* (Flynn, 2007/2009), will notice a change in labels. What I once called short-hand abstractions (SHAs) and Anti-SHAs are now called Key Concepts and Anti-Keys.

I call these 20 notions *Key Concepts* because they identify the keys that unlock the door to understanding the modern world, plus naming the anti-keys that do nothing except spread confusion (see Box 1.1)
Universities and the Knowledge Trap

Given that I have spoken of the need for wide-ranging knowledge, it may seem odd to speak of the knowledge trap. I will illustrate what I mean by recalling my own experience at the University of Chicago. It prided itself on its great books program, books that exposed all undergraduates to philosophy, history, social science, natural science, the humanities, and so forth. Its faculty had a coherent notion of what an educated person should know and adopted a curriculum that forbade too much specialization. The lecturers were themselves critically aware and made sure that all students were exposed to the concepts they needed somewhere in the collection of courses they took. However, even this university failed to educate properly.

The problem is that every lecturer is commendably eager to impart knowledge, and the Key Concepts get lost in the sheer volume of that knowledge. I am guilty as well. When I teach an introductory moral and political philosophy course, I do discuss the pitfalls of tautologies and the naturalistic fallacy. But there are so many fascinating things to teach about Plato's theory of being, his theory of knowledge, his psychology, and his theory of tyranny. And then there is Aristotle, Hobbes, Marx, and Nietzsche. A colleague teaches history with due emphasis on what distinguishes real history from mere tradition or self-serving myths. But there are the fascinating events that led to World War I, and how the class system structured strategic thinking and made the lives of ordinary soldiers cheap, and why the League of Nations was doomed.

Even if you tell students to note and treasure the Key Concepts as you introduce them one by one, they simply do not stand out from the background of the total content of the course, all of which will be on the examination. The concepts of one course do not appear in the next course, and those encountered in one year are absent the following year. Students would have to keep a special Key Concepts diary, to be compiled and consulted for its own sake, to be added to on the rare occasion when a new concept is encountered, and sustain this as a regular chore throughout their undergraduate experience. What university actually advises this, rewards this, and keeps track of whether it is being done? On one level, the antidote is simple: just prior to graduation, every department should offer its majors a one-semester course that identifies the concepts and shows how to use them.
Introduction: The Knowledge Trap

Substitute for a Diary

This book is a substitute for the diary you never kept at school or university. The concepts fall naturally into five groups: those associated with philosophy, the social sciences, economics, the nature of science, and international politics. The next 18 chapters will present them in that order. By the end, you will have a good tool kit. No doubt, the 20 concepts I have selected reflect my competence. If I knew more about the environment, I would list “Gaia” (the concept of the Earth as an integrated living entity) and “tipping point” (the point at which gradual change suddenly turns into chaotic change). Let others write similar books, but these 20 concepts will do for a start.

References
