What has not cankering Time made worse?
Viler than grandsires, sires beget
Ourselves, yet baser, soon to curse
The world with offspring baser yet.
—Horace

Since the days of the poet Horace, adults have always fretted about the moral decay of the younger generation. Ninety years ago, for example, the New York City Board of Education issued a report in which they decried the decline of character among New York City’s school-aged children. Their tone was eerily similar to Horace’s. To the authors of that report, the remedy for the sorry moral state of our school-aged children was clear: They needed character education, the aim of which “should be to develop clear-cut conceptions of positive virtues, to present the principles of right living that will govern boys and girls in making moral decisions.” They described their charges’ lack of such principles in the following terms:

The shock comes when we learn their code of morals. These same delightful young people believe that it is all right if they can “get away with it.” They lack respect for parents and for authority. To copy home-work is entirely honorable if they are not caught. Forging a signature is a simple way of saving a lot of trouble. “Cutting” is to be commended if they can “get by.” Thieving is a matter of almost daily occurrence. Cheating is no disgrace if the offender is not detected... When called to account they are seldom sorry that they have offended, but they are extremely sorry they “got caught”... They have adopted the code of the street because they have never learned a higher code of morals.

Today, parents, teachers, and political leaders seem no less worried about the sorry moral state of our children, and the schools still get the lion’s share of the blame. According to a recent survey, 93 percent of American parents of K-12 students view “the development of strong morals and ethics” as a “critical” or “very important” responsibility of our schools, but only half of the parents surveyed believed the schools were doing an acceptable job at it. Reinforcing the sentiment that the country needs a boost to its character quotient, Presidents have proclaimed a “National Character Counts Week” every year since 1994, and, not to be outdone, the Senate has passed similar resolutions virtually every year since 1996. In that first presidential proclamation, President Bill Clinton issued this rallying cry:

As we seek to instill important values in a new generation of Americans, we must redouble our efforts to improve student learning, responsibility, and sense of belonging. We must revitalize the American ideal of community if our schools are to achieve their full potential. Adults, children, teachers—all of us must set an example. All of us can make a new beginning. Schools need to emphasize the fundamentals: building character and creating a stronger sense of self-worth.

Over the past two decades, private foundations, non-profit organizations, and individual school systems have responded to the call, designing and implementing programs designed to boost and fortify char-
character. There are some encouraging report cards. One review of eighty-seven evaluative studies of forty-five different character education programs indicated that, in general, these programs do appear to be effective. How effective, and for how long, remains open to debate. But are we asking the wrong questions and looking in the wrong place? Under the hot light that has been trained onto “character education” in the schools over the past two decades, we’ve lost sight of a more fundamental fact about education for character. Character-building has always been one of the central goals of this nation’s educational philosophy, and by many measures, our educational system continues to succeed splendidly—even without any explicit programs of “character education” added on. Is character something that can be explicitly designed and targeted, or should it be seen as an offshoot of other kinds of learning experience?

WHAT IS SCHOOL FOR?

Let’s take a step back and consider this question in a broader perspective. Thomas Jefferson’s educational philosophy exerted a profound effect on how the American system of public education would grow and develop. In his “Report of the Commissioners Appointed to Fix the Site of the University of Virginia,” Jefferson defined six fundamental goals of a basic public education:

• “To give to every citizen the information he needs for the transaction of his own business;
• To enable him to calculate for himself, and to express and preserve his ideas, his contracts and accounts, in writing;
• To improve, by reading, his morals and faculties;
• To understand his duties to his neighbors and country, and to discharge with competence the functions confided to him by either;
• To know his rights; to exercise with order and justice those he retains; to choose with discretion the fiduciary of those he delegates; and to notice their conduct with diligence, with candor, and judgment;
• And, in general, to observe with intelligence and faithfulness all the social relations under which he shall be placed.”


In Jefferson’s time, of course, significant limits were imposed on the education of women, people of color, and even white men who were not part of the property-owning class. Nonetheless, Jefferson’s view of education as a force for shaping character was highly influential in his own day, and it has remained so as educational access has increased and as membership in the civic community has been granted to many of those previously excluded. Indeed, for as long as we have been sending children to school on the American taxpayer’s dime, we have understood, as Jefferson did, that character education is a critical step in preparing young people to contribute to the republic as citizens and to take proper responsibility for their own destinies.

If we don’t appreciate the intrinsically character-building nature of our educational system, it is because we take it for granted. The moral dividends of education are hiding in plain sight, like water to the fish. This is because few of us are old enough to remember a time in American life when most children didn’t get at least a high school education. Think about it: today, high school graduation rates are higher than at any other time in history: In 1900 only one quarter of our children graduated from high school, but today more than eighty percent do. (For high-income families, the rate is even higher; for low-income families, it’s conspicuously lower.)

We can bring the hidden moral benefits of school to light so that we can better understand how a basic education improves the morality and character of young people—even at a time when the great majority of children complete high school. Social scientists have developed some ingenious methods for uncovering those hidden moral benefits. They mine historical data, they conduct longitudinal studies, and—most importantly—they examine the results of “natural experiments” that societies unwittingly conduct when policy changes randomly cause some groups of students to receive more education (or better education) than other groups of students. These natural experiments might occur, for instance, because of state-by-state differences in the passage of laws that raise the minimum ages at which people can enter the work force, or because of policy changes that abolish school enrollment fees or other barriers to entry. And these experiments tell a consistent story: The more education children receive—the earlier in life they start school, the later in life they finish, and the higher the quality of that education overall—the better the effects on character and conduct seem to be.
More than forty studies indicate that education is associated with higher rates of charitable giving and community volunteering, even after taking into account potential confounding factors such as age and income. We shouldn’t get too excited about these studies, though, because few of them permit firm conclusions about cause and effect. However, two fascinating natural experiments do suggest that education might be the cause and generosity might be the effect.

In the first of these experiments, researchers found that students who had won a random lottery that enabled them to attend a private school for a reduced fee were subsequently more generous in their donations to several non-profit charities than were students who had not won the lottery. In another experiment conducted in Kenya, girls who received scholarships that provided them with cash grants and coverage of their school fees for two years were slightly more fair and generous in sharing money with an anonymous partner than were girls who applied for scholarships but did not receive them.

EDUCATION REDUCES CRIME

First, let’s consider the effects of education on crime. For decades, criminologists have known that educational attainment—the number of years of schooling people receive—is one of the best predictors of people’s likelihood of getting into trouble with the law: the more schooling, the less trouble. However, this association does not necessarily imply that education reduces crime. It is possible that involvement in crime reduces young people’s likelihood of staying in school (which would imply that causality runs in the opposite direction). Moreover it’s possible that there are various environmental and genetic factors involved that both reduce education and increase crime, thereby creating a spurious association between them. To draw firmer cause-and-effect conclusions, we need more information.

This is why the natural experiments to which I hinted above are so valuable. The story these natural experiments tell, according to the economist Lance Lochner, support the hypothesis that schooling makes crime go down. In the United States, for example, a one-year increase in a state’s average level of schooling (which might be precipitated by a state’s passage of a law that raises the minimum age at which children can enter the work force from, say, age fifteen to age sixteen) reduces the crime rate by more than 10 percent, and the likelihood that an individual will ever be incarcerated falls precipitously if that person has received about ten years of schooling or more. Similar results have been obtained in similar natural experiments from Great Britain and Italy. Overall, the research suggests that a one percentage point increase in the U.S. high school graduation rate would reduce the economic costs of crime by two billion dollars each year.

We are in a good position to conclude that education really does reduce people’s likelihood of being involved in property crimes and violent crimes. However, refraining from crime is merely one element of character. What about the other aspects of character that we look to education to shape? Here, too, we find evidence that education makes a positive contribution.

GENEROSITY WITH TIME AND MONEY

Character-building has always been one of the central goals of this nation’s educational philosophy.

CITIZENSHIP

Civic engagement has long been known to be correlated with educational attainment, but only recently have natural experiments been conducted that enable us to determine whether the effects of education on civic engagement are of the cause-and-effect variety. According to natural experiments by Thomas Dee, a one-year increase in the minimum age at which U.S. children can leave school and enter the workforce increases their likelihood of registering to vote. It also increases people’s likelihood of actually voting by about forty percent. Likewise, schooling increases people’s newspaper readership, interest in elections, and interest in public affairs in general. An educated electorate apparently makes for a politically engaged electorate.

TRUST, TOLERANCE, AND RESPECT FOR OTHERS

Finally, education appears to promote trust, respect, and tolerance for differing points of view. For nearly eight decades, in fact, psychologists have known that the most prejudiced people in any society tend to be the least educated. Also, both within and across societies, there is a strong positive correlation between the average number of years of schooling people obtain and the extent to which they trust others in general. What’s more, people who are surrounded by highly educated people within their own communities and states are more trusting and tolerant in gen-
eral than those who are surrounded by less educated people. Thus, education can apparently build trust in two ways: by making you more trusting of your neighbors, and by making your neighbors seem more trustworthy to you.

Here too, the natural experiments just aren’t as plentiful as one might like, so it’s hard to make ironclad cause-and-effect conclusions. However, there are a couple of notable exceptions. For instance, the economist Kevin Denny took advantage of some major educational reforms that occurred in Ireland in 1968 (expensive fees required to obtain a secondary education were abolished) in order to estimate the causal effects of secondary education on attitudes toward homosexuals. His work shows that every year of additional education a student received as a result of this policy change led to a 5 percent increase in someone’s likelihood of agreeing strongly with the statement that “gays and lesbians should be free to live life as they wish.” Denny then went further and showed that one-year increases in the minimum legal age for leaving school—changes that occurred in different years for Ireland, England, Wales, and Scotland—also raised people’s tolerance of gays and lesbians. Using similar natural experiments from the United States, Thomas Dee found that increases in education strengthened people’s convictions in one of the bedrock foundations of liberal democracies—namely, the belief that minority groups and politically unpopular groups (including not only “homosexuals,” but also “anti-religionists,” and “communists,” as well) deserve to have their rights to free speech protected.

HOW EDUCATION BUILDS CHARACTER

Just how does modern school-based education by itself—independently of any add-on character education initiatives—exert these salutary effects on people’s character? How is it that we do not seem to need explicit ideological content in order to make the next generation more law-abiding, generous, politically engaged, trusting, and tolerant?

NURTURE AND NATURE

First off, as I mentioned above, it’s possible that much of the relationship between education and virtue is due not to the causal effects of education on virtue, but rather, to other factors that raise people’s educational levels while at the same time influencing their character. For example, some of the environmental factors (such as, characteristics of one’s family or neighborhood) that make people more likely to stay in school might also be involved in keeping them out of trouble with the law, or in motivating them to be more generous with their time and money.

Similarly, to the extent that there are genetic factors responsible for both educational attainment and character, the appearance that education causes character may be due features of the human genome rather than of our schools. In 2013, a consortium of researchers identified three genes with single nucleotide polymorphisms, or SNPs (variations in DNA sequences that cause some people to have, say, a molecule of guanine at the same location within a single gene where other people have a molecule of cytosine) that were linked to educational attainment. Each of the three SNPs accounted for about one month of additional educational attainment; jointly, they explained about 2 percent of the individual differences in educational attainment. Even more fascinating is the fact that these three SNPs also accounted for about 2 percent of the variability in people’s IQs. This pattern of findings suggests that some of the relationship between education and IQ itself can be attributed to common genetic factors rather than to the effect of IQ on educational attainment (or the effect of educational attainment on IQ). If these SNPs (or others that have yet to be identified) are likewise involved in creating individual differences in, say, charitable giving or trust, then we’d be right to credit the relationship between educational attainment and virtue to our genes rather than to our schools.

ECONOMISTS’ DARLINGS

In addition, there are two explanations that many economists like. The first is called incapacitation, and it is based on one of the fundamental facts of our universe: you can’t be in two places at once. Every hour or day spent inside a school is an hour or a day that is not spent selling drugs, stealing cars, or breaking into other people’s homes. According to the incapacitation explanation, education doesn’t encourage character. It prevents crime in the same way that house arrest does.

The incapacitation explanation holds some water. An experiment by Brian Jacob and Lars Lefgren and a separate natural experiment by Jeremy Luallen indicate that property crimes by juvenile offenders are more common on days when school is out of session.
(for example, due to teacher in-services or teacher strikes). This pattern is consistent with the incapacitation explanation. You can’t commit property crimes out in your community if you are locked inside the school. However, there’s a wrinkle: on the same days when the rates of juvenile property crimes are lowered by school attendance, rates of juvenile violent crimes are raised—probably because peer interactions while at school create opportunities for students to fight each other. There’s more to school’s salutary effects on character than incapacitation can explain on its own.

Another idea that economists like is that education provides people with skills (reading and arithmetic, for instance) that increase their value as workers. This basic truth applies across all occupational levels. All workers, no matter how menial their labor, are more valuable to their employers (and thus obtain higher wages) if they can read, write, and do basic figuring. As a result of the wage premium that comes from possessing even these basic skills, an educated worker encounters higher opportunity costs for an hour of crime than does an uneducated one. The greater your value to a legitimate employer, in other words, the more you stand to lose in the legitimate labor market for our behavior six months ago and what we actually feel like doing today.

What about numeracy? When you’ve mastered the basic arithmetic and then moved on to understand the calculation of percentages and the effects of compounding over time, your understanding of how numbers work affects your capacity to understand how the world works. This understanding informed by numeracy can be extraordinarily powerful goads to particular kinds of virtue. For example, some experience with the concept of interest rates allows one to appreciate the long-term benefits of saving and of patience.

In one important survey-based study, more than forty-two thousand British adults were asked to indicate which of two hypothetical rewards they preferred. The two rewards differed not only in their amounts (£45 vs. £75), but also in the amount of time participants would have to wait to obtain them (three days if they chose the £45 reward, but three months if they chose the £75 reward). If you preferred the smaller reward, you could get it more or less right away, but if you preferred the larger reward, you’d have to wait a while.

Education made a big difference in the choices people made. Participants who completed eleven or fewer years of education were substantially more likely to choose the smaller-but-sooner reward than were public, community members can more readily turn those rules into objects of study. A rule that is externalized into print form—a rule that exists outside of our private mental representations of it—becomes a thing. Things can be studied, interrogated, and disputed. Moreover, because of the sophisticated moral discourse that writing and reading make possible, rules and laws might ultimately be revised, altered in scope, or chucked altogether. Protesting or seeking to modify unjust rules that are blindly observed but not formally codified is a bit like hunting the ever-elusive snipe. Once rules are codified, however, the odds of changing an arbitrary or bigoted rule may tilt slightly in the reformer’s favor.

Literacy, of course, has other beneficial effects on the development of character as well. Once we can read and write, we can keep external records of our debts, credits, and promises to others (and theirs to us). With external records of this nature in place, it becomes easier to enforce our contracts without conflict, and it becomes harder to shirk our obligations without dishonor. Writing then, becomes a commitment device that reduces the gap between the ideals we held for our behavior six months ago and what we actually feel like doing today.

A CURRICULUM FOR CHARACTER

Explanations based on common genetic causes, common environmental causes, incapacitation, and the wage premium all have their uses, but they’re just the tip of the explanatory iceberg. Education itself—the skills, knowledge, and other cognitive tools that people learn through a formal education—almost certainly prepares our minds for character and virtue in more substantive ways as well.

Literacy, for instance, makes all sorts of moral miracles possible. In a community of readers and writers, it becomes possible to specify a set of rules that will govern the community’s behavior, and then to record those behaviors on an external memory device (papyrus, stone tablets, or a hard drive in a server farm somewhere). It’s also easier to follow a rule you can see with your mind’s eye and not just hear with your mind’s ear.

There’s more to literacy. Once rules are written down, they more readily become objects of scrutiny. Once the rules are externalized, objectified, and made

MICHAEL MCCULLOUGH

HIGH SCHOOL MADE YOU A BETTER PERSON 20

MINDING NATURE 8.2
participants who completed additional years of education. The less education you had, more likely you were to prefer to take the money and run, even though turning down the larger-but-later reward implied walking away from an investment that would grow with an interest rate in excess of 700 percent per year. (At the time of this writing, many banks in the United States are trying to lure people into opening savings accounts by tempting them with interest rates of 1 percent per year.) The association between education and patience wasn’t spuriously caused by the effects of education on adult income, either: better-educated people were more patient even after statistical controls were put in place to control for any causality-muddling effects of age, gender, and income.

Of course, what makes patience a virtue is not only its financial benefits, and we aspire to have education be associated with patience understood and practiced in a broader way. Patience is a virtue because of the crucial role it plays in honesty, fidelity, responsibility, trust, regard for others, and healthy living. To take just one example of the broader character dividends that come from patience, consider cooperation. Building and maintaining successful cooperative relationships requires us to resist the temptation to have a cut-throat, take-no-prisoners attitude toward our interactions. To the extent that we take our neighbors’ interests into account when trying to obtain good outcomes for ourselves (rather than pursuing a scorched-earth policy by which we always try to maximize our short-term gain, no matter how costly it is to our partners), those partners will seek us out in the future for more interaction. Working repeatedly with partners who trust you can be much more productive than seeking out new partners for every new venture because of the bridges you burned with your previous partners.

Education also provides people with a set of general-purpose reasoning skills that cannot help but improve our character.

Education provides general-purpose reasoning skills that cannot help but improve our character.

The fact that, by virtue of his race, religion, sexuality, or politics, John is a member of a group that we dislike is irrelevant. No amount of special pleading can undo this iron logic (although it is possible through self-deception to shield oneself from its implications).

But the link of education and character is even deeper than that. Indeed, the secondary-school curriculum itself is shot through with character-relevant implications. The basic biology and neuroscience to which every high school student should have access before graduating sets the stage for many startling intellectual discoveries, such as the fact that humans are not the only sentient and social beings in world; there are many creatures that feel pain, suffer, and prefer certain fates over others. These facts are morally relevant—how could they not be?—and with proper guidance, learning them can be the occasion for students to thoughtfully contemplate how they wish to treat the other animals with whom we share this planet.

Psychology and history are morally relevant, too. The basic lessons of group dynamics that normally get covered in a twelfth-grade psychology course, when paired with the miserable lessons to be learned about the costs of war from a study of history, are available to help people resist the saber-rattling of sincere-sounding, smooth-talking leaders who would rush our nations into war in the wake of terror or the heat of vengeance. The literacy, numeracy, tools for reasoning, and cold hard facts about nature and history that make up a basic education don’t just make us smarter; they can make us better, too.

**THE KIDS WILL BE ALRIGHT**

There is a joke about a recovering alcoholic, ten years of sobriety under his belt, who is always inviting a friend with a drinking problem to come with him to an Alcoholics Anonymous meeting. “I know the people who go to that meeting,” the not-yet-bottomed-out friend replies in a moment of candor, “they’re all just a bunch of hypocrites.”

“Well, if you think they’re hypocrites now,” the friend-in-recovery responds, “you should have seen them before they started coming to AA.”

We suffer from the same shortsightedness when we fail to appreciate the powerful role that education plays in shaping the character of our young people. Education on its own—without any fillers or additives, and without any specific ideological agenda—is
character education, and it always has been. Sensible programs of deliberate character education should be developed and actively encouraged to supplement our children’s development of the virtues we all care about. But as we take advantage of opportunities for these sorts of character-education experiments, let’s all take a deep breath and admit for once and for all that Horace was wrong. Our offspring are not destined to be worse than we are. In the main, our kids are doing well, and we’re doing well by them. After all, 80 percent of the kids in this country are already receiving a full dose of the best character-education program we have to offer them—a comprehensive K-12 education. In the interest of character building, as we continue to look for meaningful ways to add character-specific content to our schools, let’s also keep trying to get a full dose to that final 20 percent who are still having to make do without.

Michael McCullough is a Professor of Psychology and Director of the Evolution and Human Behavior Laboratory at the University of Miami. He is Senior Scholar at the Center for Humans and Nature. His most recent book is Beyond Revenge: The Evolution of the Forgiveness Instinct (Jossey-Bass, 2008). He is currently working on a book about the evolutionary and cultural foundations of human generosity. Follow him on Twitter @McCullough_Mike.