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**Education, Research, and Government**

**in the Ancient Greek World**

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We often debate the question of what children should be taught at school. This question goes back to antiquity, and one of the most famous answers to it was given by the Spartan king Agesilaus, who replied that children should be taught information that they will use when grown up. [new slide] Agesilaus’ response became famous because it is paradoxical: the criterion chosen seems obviously right, and yet it was as clear to anyone in the ancient world as it is to anyone in the modern one that this criterion has little or nothing to do with what children are actually taught. Probably everyone in this room can recall being taught something at school that he has never used since; in fact it often happens that *most* of what a person learns at school is never used in adulthood.

This situation arises for a variety of reasons, one of which is that the people who provide or control the provision of education have their own vested interests, which are often different from those of the receivers of the education. For example, a few years ago I took the Life in the UK test to obtain permanent residency in this country, and for that purpose I was obliged to learn how to pay a water bill in Northern Ireland. There is no way that this information can be of any use to me, since I do not live in Northern Ireland and probably never shall live there. Moreover, the people determining that test cannot have thought that it would be useful for me or indeed any other immigrant to know this information. The Life in the UK test is designed to be taken by immigrants who have lived in the UK for some time, so the applicants who have spent that time in Northern Ireland already know how to pay their water bills, while those who have spent that time in other parts of the UK are probably not intending to move to Northern Ireland. The information was included in the material I was supposed to learn because it was helpful to someone else to have me learn it.

This point, of course, is the key to understanding any type of education provided or mandated by society: the wider society provides and/or requires education in those subjects that the people in charge of making society’s decisions on that point think it would be helpful *to society* to have children (or immigrants) learn. There is, however, a complication, for some information is so reliably provided in other ways that society does not have to waste its own resources on it; as a result looking at the education system will not reveal everything about what is important to a particular society. For example, if you looked at our education system you might conclude that twenty-first-century British society values literacy very highly and knowledge of foreign languages very little, and that would be correct. But you might also conclude that we value toilet-training not at all, and that would be incorrect, because in fact toilet-training is absolutely essential for participation in our society. The reason it is not part of the school curriculum is not that we do not consider it important, but that most parents can be relied upon to teach it themselves. If large numbers of children started to turn up at school in nappies, no doubt the school system would alter so that toilet-training was in fact taught in school, because we all agree that all adults should be toilet trained. The state education system typically includes only material that is *both* desired knowledge *and* knowledge that many children are unlikely to acquire in other ways. So looking at an education system tells you a significant amount about what the society that produced that education system values, but it does not necessarily tell the whole story.

As this example shows, by ‘education’ I mean not just academic skills, but anything that is systematically taught. Mozart was taught music as a child, and that was education. Children on farms are taught to milk cows and drive tractors, and that is education too. In our world neither of these skills belongs to the subjects that we think of as academic, but that has to do primarily with the values that shape our education system, and those are not shared by all cultures. [new slide]

In most ancient societies, of all the skills a man could have the one most important to the state was military prowess. Most of the ancient Mediterranean was in a more or less constant state of war until the Romans came along, and in that situation a state whose men could defend it would survive and often prosper, and one whose men could not defend it would not survive. So there was a kind of Darwinian selection process affecting ancient education systems, and it selected for good military training. I do not of course mean that the survival of ancient states depended purely on their education systems, because obviously it also depended on who attacked them; nevertheless education clearly played a major role in determining success and survival. This fact was acknowledged by many ancient thinkers, who constantly put military training high on the agenda when discussing education.

What did military training mean to an ancient Greek? [new slide] On one level obviously it meant knowing how to use your weapons well, whether that entailed throwing a spear with accuracy and force or rowing a trireme effectively. But it also meant being in good physical shape, with the strength to throw that spear hard enough to actually kill someone and the stamina to charge while wearing heavy bronze armor. It meant having the toughness to march all day without a break, eat a small amount of unattractive food, sleep briefly on the cold ground, and then get up in the morning willing to obey the commander who had provided for you so badly when he ordered you to charge against well-armed, well-rested, well-fed men who looked far more numerous than your side. That type of skill was much harder to acquire than the ability to throw a spear, and in consequence it was more admired where it was found.

For that reason the ultimate Greek education system was that of Sparta [new slide], which in the case of boys focused on these background military skills almost to the exclusion of everything else. (We shall come to the girls later.) Now Sparta was unusual among the Greek city-states for its lack of individual freedom, and this applied to adults as much as to children. Wealth and luxuries of all kinds were forbidden, and all the citizen men ate together to prevent anyone from having nicer food than anyone else. Nowadays people sometimes use the term ‘communist’ to describe the Spartans, and when saying that they think both of the lack of individual freedom and of the social equality, without rich or poor citizens. But in fact Sparta was massively un-communist, and also massively socially unequal, because these citizens on whom we focus were only a small percentage of the population. They were dramatically outnumbered by a group of serfs known as Helots, and the emphasis on military virtue in Spartan society was caused by the constant need to maintain control of the Helots. [new slide] This situation had developed when the Spartans, who originally had a fairly small city, conquered a much larger territory originally owned by the Helots. [new slide] By enslaving the entire population of Helots and forcing them to do all the farming and other manual labor the entire district needed, the Spartans gave themselves what probably seemed initially like a life of leisure. Spartan citizens engaged in no manual labor at all: there were not only no Spartan farmers, but also no Spartan potters or carpenters or painters, because they had Helots for that kind of thing. But the other side of this picture was that the Spartans did not exactly spend their time lounging around on deck chairs watching the Helots work; in fact, because the Helots did not like being slaves, the Spartans ended up having much tougher lives than they would have had if they had done their own farming in the first place. Spartan citizens all had to train as warriors, even if occasionally someone thought that he would really have rather been a painter or potter than a warrior, because any time the Helots got half a chance they used to revolt and try to get their country back. Those revolts were usually put down successfully, because the Spartans really were magnificent warriors, but revolts kept on happening and so kept the Spartans on their toes.

What kind of an education system could produce warriors consistently capable of winning against overwhelming odds? Only a state-run system, the Spartans believed. Parents are too affectionate, so if you leave children with their parents they will coddle them and make them soft. Parents wrap their children up warmly, give them shoes, provide them with all they need to eat, dry their tears, and cuddle them. That does not make a warrior. A boy who will grow up to be a Spartan warrior needs to be not just tough, but the toughest of the tough. He needs to be used to having too little food, too little warmth, too much pain, no shoes, and no kindness at all. So the Spartan education system focused above all on toughening boys. Since there are limits to how tough you can be on a baby, parents raised their children for the first seven years and during that time were allowed to give them plenty of food and clothes and cuddles. But once a boy turned seven he was handed over to the state to be educated, and from then on his life was pretty tough.

For example, Spartan boys were deliberately given too little food. Now growing boys need to eat and get seriously hungry if they do not get enough food, so the result of this systematic starvation was that the boys were always stealing food. This was officially forbidden, of course, and the boys were whipped when they were caught, but many Spartans claimed that food-stealing was nevertheless what the rules were supposed to produce. The logic behind this was that a warrior needs to be quiet and clever, like a burglar, and to outwit the enemy effectively; therefore burgling is a good training for future warriors. On this principle the idea of whipping boys caught stealing was not to punish them for burgling, but to punish them for being bad enough burglars to get caught.

An education system that subjects children to harsh conditions is bound to increase child mortality, and even outside Sparta the mortality rate was high in antiquity, because without modern medicine children tend to die of diseases and from accidents. So Sparta had a serious population problem, because they needed as many men as possible to keep the Helots under control, but the training system that was also needed for the same reason led to a reduction in surviving adults. The Spartans came up with a solution that seems to have been unique in ancient Greece, namely to concern themselves with the education of girls as well as with that of boys.

Women in ancient Greece had lives very different from those of men. Instead of going to war, conducting public business, and farming, they managed households, trained and directed female servants, raised children, and produced clothing (which meant spinning and weaving, not only sewing). All this required considerable education, of course, but the state did not provide that education, because families could be counted on to provide it themselves. So girls were educated largely at home, and women did their work largely at home; indeed they were encouraged not to go outside their homes more than strictly necessary, to protect them from rape and seduction. This meant that women got little exercise (most ancient houses were small and crowded, so that exercise within them was not practical) and were often less healthy than men as a result.

Modern medical science is not needed in order to know that condemning the female half of a population to ill-health is bad for society as a whole, not just for the women concerned. The ancient Greeks had already noticed that weaker women were more likely to die, especially in childbirth, and that even if they survived weak women were likely to produce weak babies who would die before reaching adulthood. For most Greeks that was just an unfortunate fact of life, but the Spartans could not afford to neglect anything that might give their population a boost, so they decided to give state training in athletics to girls with the goal of making their women healthier and thereby increasing the population of tough Spartan warriors. [new slide]

Serious exercise in antiquity implied either nudity or something not far from nudity, both because the clothing that Greeks usually wore was completely impractical for strenuous activity, [new slide] and because people are very careful not to damage their clothing when getting a new garment means first making the whole piece of cloth by hand. Of course, in our climate telling children to exercise would not produce much of a health increase if it meant that they had to take off all their clothes outdoors, because they would get so cold and wet that many would die of exposure. But Greece is a lot warmer than England, so the primary effect of getting girls to take off their clothes was not hypothermia but indecency. People in other Greek cities were shocked, but the Spartans were not bothered by watching girls exercise in the nude. In fact, they thought that having girls’ bodies on show was a good encouragement to men to marry -- and of course the Spartans had to ensure that everyone married in order to get the maximum reproduction rate.

At this point you may be wondering whether education in the modern sense of academic subjects had any place in the Spartan curriculum at all. You may be suspecting that it did not, because the Spartans had a reputation for being somewhat Philistine and not caring for the arts. But in fact the Spartans saw literacy as important, so they made sure that all the boys and at least some of the girls were taught to read and write. This training had to be provided by the state, rather than by the boys’ families, because around the time they were old enough to learn how to read boys were separated from their families and raised by the state. If the state had not incorporated reading and writing into the curriculum of starvation, theft, and exercise, everyone would have been illiterate. Thus was born the Western world’s first completely state-funded literacy training: it came from a need to keep the Helots enslaved.

In fact, the famous training in physical toughness and skill was only one component of the Spartan education system. Literacy was the second, and the third was character building. Spartan boys had an amazing capacity to endure pain; the most famous example of this was a whipping contest in which boys competed to endure the longest whipping without showing signs of pain. We have it on good authority that boys regularly allowed themselves to be whipped to death in this contest, which does seem a dreadful waste but was considered one of the glories of the system. Another famous example of Spartan character is the story of the boy who stole a live fox and hid it under his clothes when its owners came to look for it. The fox bit the boy, found he tasted good, and started to eat him, but the boy did nothing to prevent this and indeed acted as though nothing was wrong, to avoid being caught with the fox. In the end the boy died of his injuries, so again it seems a waste, but to the Spartans it was a triumph.

Character was not only about courage and endurance of pain. Spartan boys practiced obedience to commanders, and they also practiced commanding well. [new slide] Discipline was the essence of the Spartan hoplite army, because soldiers fought in a line, with each man’s shield protecting not only his own left side but also the right side of the person next to him. It was vital that the line operate as a unit, advancing or retreating exactly as commanded, and for that reason discipline was highly prized. The Spartans themselves said that the essence of their education system was learning how to rule and be ruled. Any boy had to be obedient to any adult, and any adult could punish any boy for any transgression. This sounds like slavery pure and simple, but the idea was that because all the adults had perfect integrity and there was a clear and unambiguous set of rules, no-one was ever punished unjustly and everyone was improved by punishment. The men administering the punishment were also bound by this system, because it was an offence not to punish a boy who was detected doing something forbidden. So the Spartans saw their discipline as producing not slavery but freedom: they were all perfectly obedient to the laws and never subject to the whims of individuals. In fact they considered themselves the only truly free people in Greece. When people in other cities prized clever speaking and the art of persuasion, the Spartans scorned all forms of rhetoric, on the grounds that it led to making bad decisions. That attitude is a large part of what gave them the reputation of being uneducated, and in this respect they were proud of their lack of education.

Here one must admit that our information on Sparta and its education system comes from several different periods, and we cannot be completely sure that it all applied at all periods. The Spartan education system as presented in Greek authors is difficult to assign to a particular date, and it may be that the picture our sources present it something of a composite, mixing stories from different periods. The possibility of change in the system is not usually acknowledged by ancient writers, because it was not acknowledged by the Spartans, who maintained firmly that they got their system from their prehistoric lawgiver Lycurgus and preserved it intact thereafter. In fact the moment when Sparta became Spartan can be dated archaeologically to the seventh century BC, which is later than the date assigned by legend to Lycurgus, so there is likely to be something a bit wrong with this picture.

But in the Spartan consciousness the unbroken conservatism of their education system was a sacred matter. According to legend, after setting up the education system Lycurgus went off to Delphi to consult the oracle and find out whether the gods approved of the new system, and he made everyone swear not to change anything until he came back with the god’s answer. Then when he got to Delphi the god was enthusiastic and said the system was excellent, so Lycurgus sent a messenger home with the oracle’s response and killed himself, so that the Spartans would never be released from their oaths. Legend has it that he even had his friends cremate his body and scatter the ashes in the sea, which was almost never done at that period, so that no-one could ever bring his body back to Sparta and claim that by doing so they had relieved the Spartans of the obligation to follow Lycurgus’ laws. [new slide]

Now let us turn to the other superpower of the Classical Greek world, namely Athens. Athens was considered the antithesis of Sparta in multiple ways. Where the Spartans were disciplined, hierarchical, and scornful of the arts, the Athenians were chaotic, ungovernable, democratic, and produced some of the greatest art the Western world has ever seen. But both cities were very successful militarily, which actually was the main criterion for success in the fifth century BC; it was only later, when all the Greeks had been conquered by outsiders who had less culture, that the Greeks started to argue that culture is more important than military might.

The Spartan warriors were hoplites; that is, heavily-armed men who fought in formation. In an army like that each warrior must have the correct equipment, otherwise the system does not work, and in antiquity that equipment was very expensive. In Sparta such expense was not a problem, because owing to the work done by the Helots all the Spartan citizens had the necessary wealth to fund the weapons. But in Athens the funding of hoplites was more difficult, because many Athenians were poor and could not afford the bronze weapons. Partly for this reason Athens invested heavily in its navy. [new slide] A navy was a highly democratic military force, because ancient warships, known as triremes, were propelled by rowers, and rowers did not need expensive equipment. The ships themselves were expensive, but they were provided by rich citizens as part of their taxes. So for many Athenian men military training consisted partly of training in rowing a trireme. [new slide] The work involved in this was not negligible, of course; rowing is hard work, and to propel a warship effectively it is necessary to have rowers who can not only move in unison but also perform complex maneuvers to turn the ship rapidly. [new slide] A trireme has three banks of oars on each side, and if one bank gets tangled with another, the oars break and disaster ensues. The comedies of Aristophanes preserve complaints of trainee rowers about their blisters and exhaustion. But significant as was the training involved, it was much less than that needed in Sparta, so Athenian men and boys had plenty of time left over for other activities -- which was good, since unlike the Spartans they needed to earn a living.

Athens also had an army, [new slide] which included richer hoplites as well as poorer soldiers with cheaper and therefore less effective weapons, and this also required military training. That training was provided by the state to all citizen males, and young men left home for it for two years, from ages 18 to 20. This system resembles that in many modern countries with compulsory military service; in fact the Athenian army bears a certain resemblance to that of Switzerland, in that all young men devoted a relatively short period of their lives to full-time military training but were expected to remain on call for action for the rest of their working lives.

But just as the Swiss army does not substitute for a school, so likewise the Athenian state-sponsored military training seems to have been purely military and, at least in the Classical period, did not involve literacy, numeracy, or any of the other things we would think of as ‘academic’ subjects. Skills that were taught in schools, as opposed to in ships and military camps, were not provided by the state but by parents, whether by doing it themselves, by hiring, tutors or by sending the children to school, [new slide] and this naturally produced a significant variation in literacy levels. Some Athenian citizens could read and write fluently and were highly trained in poetry and rhetoric, while others were completely illiterate. This situation seems to have been the normal one in Greece, for as far as we know Sparta is the only major city that had state-funded literacy training.

Learning to read and write was a somewhat different process in ancient Greece from the one our children experience today. For one thing, ancient children learned to read not from special easy readers, but from the Homeric poems, the *Iliad* and *Odyssey*. Homeric poetry is not written in everyday classical Greek; its language a mixture of phrases from different Greek dialects and different centuries, all blended together to make poetry that is beautiful, intricate, and utterly different from anything any Greek ever uttered in an ordinary conversation. So Greek children learned to read on poetry written in a strange dialect. To make matters worse, as time went on the Greek language changed, as languages always do, while the poetry of Homer remained fixed. So by the fifth century the Homeric language was two or three centuries out of date, depending on what you believe about the dating of the Homeric poems. Learning to read on Homer was for an ancient child what learning to read on Robert Burns would be for a modern English child: really, truly painful.

There is also another aspect to learning to read in antiquity, namely that certain reading aids we take for granted had not yet been invented. These include capitalization, paragraphing, quotation marks and most other punctuation, even spaces between the words. [new slide] Here is an example of English written as it would have been written in antiquity: [new slide]

[For the benefit of those reading the transcript without the slides, here is the contents of that slide:

OMYLUVESLIKEAREDREDROSE

THATSNEWLYSPRUNGINJUNE

OMYLUVESLIKETHEMELODIE

THATSSWEETLYPLAYDINTUNE

ASFAIRARTTHOUMYBONIELASS

SODEEPINLUVEAMI

ANDIWILLLUVETHEESTILLMYDEAR

TILLATHESEASGANGDRY

TILLATHESEASGANGDRYMYDEAR

ANDTHEROCKSMELTWITHESUN

ANDIWILLLUVETHEESTILLMYDEAR

WHILETHESANDSOLIFESHALLRUN

ANDFARETHEEWEELMYONLYLUVE

ANDFARETHEEWEELAWHILE

ANDIWILLCOMEAGAINMYLUVE

THOTWERETENTHOUSANDMILE]

The difficulty is produced by a combination of the lack of our usual reading aids and the unfamilarity of the language. Here is what that poem would look like in a modern book: [new slide]

Robert Burns: A Red, Red Rose (1794)

O my luve’s like a red, red rose,

that’s newly sprung in June:

O my luve’s like the melodie,

that’s sweetly play’d in tune.

As fair art thou, my bonie lass,

so deep in luve am I;

and I will luve thee still, my dear,

till a’ the seas gang dry.

Till a’ the seas gang dry, my dear,

and the rocks melt wi’ the sun;

and I will luve thee still, my dear,

while the sands o’ life shall run.

And fare-thee-weel, my only luve!

And fare-thee-weel, a while!

And I will come again, my luve,

tho’ ’twere ten thousand mile!

Additionally, of course, all ancient books were handwritten, and many ancient Greeks had poor handwriting. Reading Homer in antiquity would therefore have been even harder than deciphering this example.

In short, the history of writing since the fifth century BC has been a continuous shift of the burden of interpretation from the reader to the writer. This happens naturally to writing systems, because writers want to be understood -- but the process requires time, and in the fifth century BC even the alphabet itself was comparatively new. Therefore reading, and especially learning to read, was harder work and took longer in antiquity than it does now, and that meant that a society had to dedicate a lot of resources to teaching if it wanted to have a high literacy rate.

So far we have not mentioned research. Research did take place in the fifth century BC, but it was not state-funded. Some research was done by doctors like Hippocrates, trying to figure out what worked in medicine, though of course ancient doctors did not have anything approaching modern controlled experiments. Other research was done by a group of people who at that period were all called philosophers, though we might have called them engineers, astronomers, and philologists; the results were far from negligible but were always part of we would call private enterprise. [new slide]

The age of independent Greek city-states came to an end in 338 BC, when Philip II of Macedon won the Battle of Chaeronea and so completed his conquest of Greece. Philip’s son Alexander the Great then conquered most of the eastern half of the Mediterranean, and suddenly the Greek world became a much larger and more diverse one. The kings who succeeded Alexander at the start of the Hellenistic Age also ushered in an era of big government, with large centralized states and lavish public spending, a trend that extended even to areas outside their direct control.

One aspect of this public spending was state funding for research. In part this was motivated by practical considerations, because some Hellenistic science had significant military applications: no sensible monarch wants his scientists to sell their military technology to someone else. [new slide] We do not know precisely how the development of Archimedes’ giant mirrors, which set fire to the ships of attacking Romans, was funded, but since Archimedes was a close friend of the king of Syracuse, whose city his inventions attempted to protect, it is highly likely that the king funded the project at least in part.

Hellenistic monarchs also supported blue-skies research, however, including research in the Humanities. [new slide] Long before Archimedes had developed his mirrors, the first king of the newly Greek state of Egypt had founded the Western world’s first Humanities research institute, the Museum and Library at Alexandria. The library was the greatest in the Greek world and had about 500,000 books, which would make a pretty decent-sized library even today. Even if you take account of the fact that by ‘books’ the ancients usually meant papyrus rolls (which held less text than your average modern book), those 500,000 papyrus rolls would be the equivalent of about 100,000 modern books, which is still pretty impressive. Unfortunately the librarians acquired some of these books by stealing them, but that only increased the value of Alexandria’s collection in comparison to those elsewhere. The Greek world’s greatest scholars were drawn to this magnificent collection and the opportunities for funded research provided by the Museum, and a host of scientific and scholarly advances followed. In particular, we owe to the scholars who worked in the library the textual work that preserved for us the masterworks of Homer and the other great authors of the classical period in more or less the form in which their authors produced them. [new slide]

But publicly funded research has hazards, for example government interference in scholarship. Or, to look at things from the government’s point of view, scholarly interference in government. The Museum and Library suffered from both, and those problems led directly to its demise as the ancient world’s premier research institute. One of the Librarians, Aristarchus, was a great scholar when it came to Homer, but when it came to politics he was not sharp enough, or perhaps was too idealistic, to back the winner. Either way, there was a struggle for succession to the throne in which Aristarchus backed the loser. The winner avenged himself on Aristarchus by expelling not only him but all the scholars from the Museum. They fled to other countries and ended up scattered all over the Mediterranean. Each began to teach wherever he ended up, and thus were born a whole set of important institutions of higher learning; indeed the expulsion of Aristarchus may have been one of the best things that happened to ancient scholarship. [new slide] The magnificent original library, of course, remained in Alexandria, and eventually the king relented and hired new scholars for the Museum. They continued to work there until the library was destroyed by a fire many centuries later. But Alexandria never regained its initial monopoly because of all the rival schools that now existed elsewhere. Paradoxically, this suggests that while the creation of government-funded research institutes is good for scholarship, the closure of such institutes can also have benefits in terms of the dissemination of knowledge.

It is now time to address the question of how successful the education systems of Athens and Sparta were. Superficially, both seemed successful: Athens and Sparta were the two pre-eminent cities of Greece, and the Greeks had no doubt that that was due at least in part to the character of their people, character formed at least in part through the education system. But a closer look shows a more complex situation.

The Spartan education system registered some important successes. The Spartans managed to maintain their control of the Helots for many centuries, and since that was the main goal of the education system, the system has to be accounted successful in that respect. Moreover the Spartans were universally agreed to be the best warriors in Greece, and for many centuries they usually won their battles. Even when they lost, as at Thermopylae where a mere 300 Spartans fought a Persian army numbering in the thousands, they fought so well that the lost battle sometimes served to increase rather than decrease other people’s awe of the Spartans. Spartans were respected by other Greeks for their toughness, their military prowess, their discipline, and their courage. When other states asked for military help from Sparta, sometimes all they asked for was a Spartan general to command their troops, because they respected Spartan generalship as much as Spartan obedience.

But in some respects the Spartans were ultimately unsuccessful. They never quelled the Helots completely, despite atrocious cruelty that arguably should not have been necessary if the Spartans had really been so superior. Eventually a major portion of the Helots managed a successful revolt from which Sparta never recovered. Moreover Spartans did not always win their contests with other Greek states. In a simple pitched battle they were normally invincible, but battles were not always simple. For example an Athenian general once defeated a band of Spartans by setting fire to the forest in which they were waiting and forcing them to surrender or be burned alive. Others withstood Spartan attacks by staying inside their walled cities, because Spartans did not excel at siege warfare. If their enemy did not come out and fight, Spartan attackers did not know what to do. They could not simply blockade the city and starve the citizens out, because if the Spartan citizens were away from home for too long the Helots would revolt. Nor could they come up with clever siege machinery, because they scorned all crafts and had deliberately made sure no citizen was trained in any form of mechanics or engineering -- and to entrust their success or failure to a Helot craftsman would obviously be risky.

But even worse was the way that Spartans could not make good use of their success when they actually defeated another city. Greeks from another state would loot a conquered city and bring back booty and slaves to enrich their own city, but Spartans were not permitted to have wealth, so they could not take loot home with them. Nor could they easily leave a garrison or even a governor to control the conquered city and make sure it did not cause them trouble in the future, because despite all their ascetic education, Spartans away from home were very susceptible to corruption. This susceptibility may have been simply human nature, which could not be eradicated by the education system, but it is also possible that the harsh Spartan training was even a contributing factor. Men who have not slept in a proper bed or had a full stomach since the age of seven, who have never owned anything beautiful or had a really nice dinner, may not be very eager to go home when they find themselves in charge of a city full of soft beds, nice dinners, exquisite artwork, and everything else they have been missing all their lives. Even when they do return home, they may want to bring the odd gold goblet back with them, and so to endanger the simplicity and uniformity of the Spartan citizenry. One of the ways the Spartan constitution was maintained was that Spartans were in theory forbidden to travel abroad and foreigners were in theory forbidden to come to Sparta, to avoid any contamination. Of course this separation was unworkable, especially in time of war, and that was one of the Spartans’ big problems.

In fact even at home, Spartans were distressingly susceptible to corruption. There were painful occasions on which even the most exalted of the citizens turned out to have taken bribes. Generals could be bribed to retreat, and if that did not work the Spartan senate could sometimes be bribed to recall the army altogether. When these incidents came to light they were viewed not only as failings of the individuals concerned, but also as failings of the education system.

One could, of course, argue that these failings were not the fault of the education system, but simply human nature, which no education can totally overcome. But in antiquity, just as today, there was fierce debate over the role of nature versus nurture. And this, to be honest, is where I think the Spartans are most impressive: they believed honestly and wholeheartedly in the power of nurture to overcome nature. The story goes that when king Lycurgus wanted to convince the Spartans to adopt the education system he proposed, he demonstrated the power of nurture by training two puppies, one from a stock of hunting dogs and the other from a stock of lap dogs. Lycurgus trained the lap-dog puppy to hunt and the hunting-dog puppy to eat; then he took them both to the Spartan assembly along with a live rabbit and a bowl of dog food, which he set on the ground before he released the dogs. The dog that had been trained to hunt chased the rabbit, and the other one ran for the dog food. A modern dog owner might of course prefer a dog that did not chase rabbits, but the Spartan view was that the purpose of a dog was to hunt just as the purpose of a man was to fight, so by this demonstration Lycurgus convinced the Spartan assembly that nurture overcomes nature and that therefore they could have a state of fearsome warriors if they changed their education system.

An education system that starts from the assumption that nature makes all the difference is a dreadful thing. It completely disempowers the vast majority of the people in it, because by whatever measure of nature you use, whether it is intelligence or courage or physical strength or noble ancestry, a few people come off better than everyone else, and then everyone else gets really discouraged and stops making an effort. But an education system that starts from the assumption that nurture can do anything is empowering. The poor little seven-year-old Spartan boy, as he lay shivering on the cold ground longing for something to eat, did not have to worry that he would fail his exams and end up in a low-paying job. He knew that he was in the grip of an education system that had the power to transform everyone who lived through it into a mighty, noble Spartan warrior: all he had to do was slog through the next decade and he would emerge triumphant. So although it was certainly cruel, the Spartan education system must also have been encouraging, at least for those who survived it. If the Spartans had been asked to judge their education system with hindsight, they would probably have said that ultimately it failed, because some aspects of nature are very hard to change through nurture, but that it was still by far the best system yet devised.

And how did the Athenian education system work out? Militarily the Athenians did well: their navy held undisputed control of the Eastern Mediterranean for much of the fifth century BC, and even on land Athenian armies scored some notable victories, including the battle of Marathon where they defeated a much larger force of Persians. The Athenians believed that this success was due to their democratic system of government: because Athenian citizens had experienced freedom and knew how precious it was, they would fight far more courageously in its defense than could anyone who was not free in his own state and therefore would only be exchanging one master for another if his side lost the battle.

By ‘democracy’ Athens meant something different from what we usually mean by the term. Most officials were chosen not by election but by lot, by random chance. So the people administering the government were perfectly ordinary citizens, not career politicians: they served for a day, a few months, or a year, depending on the office, and then went back to their ordinary lives. And when it came to taking major decisions the Athenians did not leave matters in the hands of these allotted officials: all adult male citizens were instead summoned to a giant assembly. There they listened to speeches for and against various courses of action; opinion was often diverse, since the Athenians believed that along with democracy they had invented freedom of speech. [new slide] Indeed there was so much freedom of speech that almost immediately after inventing it the Athenians had to invent the water-clock for keeping speeches within an allotted time. After the speeches everyone in the assembly voted for the course of action he preferred, and the officials were instructed to carry out the will of the majority of voters.

Unfortunately the citizens in this assembly did not always have the background knowledge necessary for making a good decision. For example, the Greeks believed that before deciding to invade another city it is important to do some research and be sure that the resulting war will result in victory rather than defeat for the invaders. But there was no way that the entire populace of Athens could study up on the military feasibility of attacking a city such as Syracuse before deciding whether or not to do so. They had to rely on the knowledge of speakers who addressed the assembly, knowledge that the listeners had no good way of verifying. As a result the men who gained power in Athens were often those able to deliver a persuasive speech, even if they had little or no relevant knowledge. Indeed the Athenian assembly had little appetite for hard evidence; what the citizens really liked was a good rhetorical display, with plenty of praise of themselves. They knew they had this problem; the playwright Aristophanes compared the Athenian populace to a blind, foolish old man who is at the mercy of swindlers. The result was that they frequently voted in favour of proposals that were not at all in their own best interests.

For example, during the Peloponnesian Wars the Athenians voted to invade Syracuse in Sicily, which was not a good decision; all the ships and men sent on the expedition were lost. But Athens still had quite a lot of ships and men left, and with these they won a major victory over the Spartans in a sea battle at Arginusae. [new slide] Now the way an ancient naval battle works is that the ships of the two sides crash into each other trying to sink each other, and since a trireme has a significant number of rowers in it, every time a ship sinks there are numerous men in the water. They do not usually drown, because the ships are open and the men can easily escape when a ship sinks; although many ancient sailors were not good swimmers, the wooden wreckage of an ancient ship would usually float, so the men could cling to it and await rescue. After a battle the winning side would usually pick up the men on the wrecks and take those from its own side home to their families while taking prisoner those from the other side. But after the battle at Arginusae a storm was brewing, so the Athenian generals decided to get the fleet into shelter without stopping to pick up the men on the wrecks, who consequently drowned.

When news of the victory and the drowned men got back to Athens, the latter outweighed the former, especially in the minds of those who had lost relatives. Some people saw the opportunity to gain power for themselves by making speeches that the Athenians would like, and they proposed to execute all ten of the generals for leaving the men on the wrecks to drown. The assembly was persuaded and had all the generals executed, even though that left Athens basically defenceless, with no good generals left and the enemy approaching. This poor decision was thought to be a major reason why, shortly afterwards, Athens was captured by the Spartans (who, of course, were not able to make much use of this victory).

If the classical Athenians had been asked to judge their education system with hindsight, they would no doubt have said that there was nothing wrong with it and the problems lay elsewhere, with the democracy. The Athenian education system only covered military training, and the Athenians were generally successful in purely military terms; it was democracy that let them down, because it led to unfortunate decisions on a higher level. But a few centuries later a different answer became possible: perhaps it *was* the Athenian education system that caused the downfall of Athens. By not concerning itself with education in non-military subjects, the Athenian state ensured that the vast majority of its citizens would be largely uneducated in those subjects. Many Athenians were not just illiterate, but also ignorant; they did not know much about the world outside Athens, they could not tell the difference between a good argument and a bad one, and they did not understand how bad the consequences of impulsive actions could be.

But not everyone fell into that category. The citizens whose fathers could afford to have them taught learned what their fathers thought would be useful to them, which after literacy was above all rhetoric. Because the ability to make a persuasive speech was so useful in Athens, teachers of rhetoric abounded there. Such teachers did not teach students how to know what the right decision was; that was not a very useful skill. Instead they taught future orators how to be persuasive, how to, as the outraged Athenians put it, ‘make the worse reason appear the better’. Young citizens learned this skill with avidity, as it promised to offer them a lucrative career of getting whatever they wanted. Therefore education actually made the whole situation worse, for the uneducated assembly was in the power of people with special skills in hoodwinking it.

In other words, democracy at Athens was rule by an unscrupulous few highly skilled in manipulating an ignorant mob; its bad end was almost inevitable. The Athenians recognized this and took action, but the action they took was to execute Socrates, whom they accused of being responsible for the powers of the unscrupulous few. Alas, this was yet another bad decision. A state cannot prevent the existence of unscrupulous people, nor can it prevent those people from being educated except by the most frightful totalitarianism; executing elderly teachers will not prevent education. But it is possible to nullify the advantage such people have by causing everyone else to be educated as well. If the Athenian state had insisted in mandatory training in logic and argumentation for all citizens, the assembly would not have been so blind and easily led. They might not have made so many bad decisions; they might have tried to find out the facts and weighed the evidence before deciding where to fight and whom to execute. As far as I know no ancient writer actually says that the root problem was that the Athenian education system left training in these vital subjects up to individual initiative, but it is interesting that in the Hellenistic period the Athenians altered the nature of their ephebeia, the two years of military training, so that it also included classes on philosophy and rhetoric. By that time it was too late, since the assembly no longer had the power to make any major decisions, stupid or otherwise, but it may be a belated recognition of what the original problem had been.

In the final analysis, therefore, both the Athenian and the Spartan education systems failed, but they failed very differently and for different reasons. The Athenian education system was badly designed: it did not teach children what the city needed them to know, and as a result the city did not survive as an independent body. The Spartan one was too ambitious; it attempted to produce supermen who were invincible both morally and militarily, but since the latter form of invincibility required a level of austerity that greatly exacerbated the temptations corruptors could offer, the moral invincibility was not attained. I do not think it would be possible to design an education system that would have done better than the Spartan one at achieving the results that society wanted; Lycurgus, or whoever lies behind that myth, was as successful as it was probably possible to be with such ambitious goals. But the Athenians could quite easily have improved their chances at survival by realizing that if the state needed to have better decision-makers in the assembly, the state needed to make sure children received the education necessary to be better decision-makers.

There is another aspect to this dichotomy as well. Each of these two cities had an education system that almost succeeded: both did very well for a long time, despite having always had the flaws that ultimately led to their downfalls. And yet one state devoted far more resources to education than did the other; each city spent almost enough effort on education, but not quite enough. Sparta could not have devoted any more resources than they did, but Athens easily could have; it was a rich city. And because the Athenians were not trying to maintain control over a massive population of Helots as well as being a major player on the inter-city stage, they had less ambitious goals than the Spartans and therefore could have attained those goals more easily. If Athens had devoted half the resources to education that Sparta did, the Athenians might still be ruling the world today.

Perhaps the lesson to find in this is that a society is unlikely to spend more on education than the minimum it considers necessary to achieve its goals. That is a fully rational decision, because the benefits to society of education do not increase endlessly with increasing education. In our society, for example, it is great to have a lot of trained doctors; we all benefit from that. We might even benefit from having a few more doctors. But it would clearly be a waste of resources to train everyone as a doctor; that time and effort could be better spent in other ways. As long as we get the calculation exactly right, a good balance is achieved, and the society gets the benefits of education without spending more than necessary on it. But when one underestimates how much education is needed in a given society, the consequences of under-provision can be disastrous for everyone: the whole society suffers. Because, as the Spartans knew already when king Agesilaus was pretending it was otherwise, state-funded education is not actually about teaching people what will be useful to those people. It is about teaching people what it is useful to the state to have them know, and if they do not know it, the state will be the loser.

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Suggestions for further reading:

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