the *hadith* mentioned above – were confirmed by a chain of references going back to the original author. Collective biographies – *tazkirah* – recorded the reliability and contributions to knowledge of a particular group of scholars. Thus, in addition to the technology of the manuscript, Islamic culture used memorization, oral transmission in person, and a careful accounting of the chains of transmission, in order to overcome the problem of semantic drift and stabilize the copying of texts. Compared to Christian Europe, Islam clearly had a more advanced technology for cultural transmission, as we would expect for a more economically developed society; but both were working around the limiting factor of the expense of the written word.[57]

The coming of print religion

Although some groups such as Jews were able to specialize in literacy to a great degree, before the printing press, literacy was confined to relatively few out of all of European society, and could play only a limited coordinating role. The invention of the printing press changed this dramatically. Books became much cheaper and could be mass-produced. We know that this transformed Western societies. But how exactly? You may think the story goes like this. There was a massive expansion in written knowledge, and an explosion of technical and scientific printed output, and a slower increase in literacy, as more and more people were able to take advantage of these newly available treasures. The resulting increase in knowledge transformed society.[58]

In the very long run, this is about right. But it misses something important. After Gutenberg, there is certainly an explosion in writing. Over the fifteenth century, Western Europe produced about 5 million manuscripts in total; in the next fifty years alone, 80 million printed books were produced, and for the eighteenth century the figure is a billion. But the most common topic of these books is not science, engineering, household management or farming advice. It is religion. A few statistics will give the flavour. 45% of Italian incunabula – the earliest printed books – were on religious topics. In

England, about 40% of the editions published from 1480-1640 were religious – by far the largest category. Across Europe, 35% of all editions between 1454 and 1600 were on religious topics.[59]

It takes a little thought to see how extraordinary that is. It is clear that the expense of print was a tightly binding constraint on the growth and transmission of knowledge. The printing press loosened that constraint. But technical knowledge is not what the press was most used for. This was not due to repression by rulers: the surge in religious publication was driven by popular demand. In 1530, there were 64,000 clandestine copies of Tyndale's New Testament in England, at a time when owning it was illegal. By contrast, Galileo's epoch-making *New Science* was a rare edition, which interested only a tiny group of specialists. Why read the Bible when you are desperately short of many more practical kinds of knowledge? To answer that question, we must look at how print helped to create new religious forms and practices.[60] I will give these the name *print religion.*

These were not just changes in practice. New denominations and groups formed to support and spread the new form of religion: first the Lutherans in Germany and Northern Europe, then the Calvinists of Geneva, Holland, and Britain, as well as new groups within Catholicism, like the Jesuits and later the Jansenists. These groups developed collective practices and institutions to reinforce the individual transformation they were aiming at. New ways of acting and thinking often challenge existing institutions, especially religious institutions, whose power is closely tied to specific beliefs; so the new groups also inevitably became political actors, supporting their interests in conflicts with the status quo powers, which often became violent. The print religion *par excellence* was Protestantism, and the link between Protestantism and the printing press was celebrated by the first reformers – Luther described the press as "God's highest and ultimate gift of grace" – and has been discussed ever since. Nevertheless, it would be wrong to identify the new religious practices with any one of these groups, or with

any specific religious beliefs. The Protestant reforms engendered a Catholic response, the counter-reformation or Catholic reformation, which was in many ways parallel, so much that some modern historians describe both reformation and counter-reformation as a single process of "confessionalization". Indeed, some key parts of print religion, for example inward self-examination and methodical spiritual exercises, were arguably first developed within the counter-reformation, and catalyzed Protestant responses. In short, Protestantism, Calvinism, and Catholicism all contributed to the development of print religion. This does not imply that all forms of print religion were the same: as we will see, there are substantial differences between different countries in the nature of print religion, its relationship with the political authorities, and its effects on society.[61]

But they did share some characteristics in common. First, religious reading, self-examination and self-discipline were central to the life of the believer. Second, religious groups were organized to support this transformed lifestyle, and developed institutions for this purpose – both teaching institutions, and enforcement institutions. Third, these religious groups were deeply woven into the lives of their adherents, providing a basis for new economic and social relationships, and to varying degrees becoming a source of social power and creating new collective actors; we shall see below how this changed the politics of the era.

The new life of the believer

The shortest definition of print religion is "book religion for everybody". Print religion extended the close engagement of the Catholic priest with the Bible, or the *hafiz* with the Quran, to all adherents. The Lutheran idea of the priesthood of all believers was more than a theological concept: it was a description of how the new religion was meant to work. The new practices of religious life included individual study and devotion, solitary reading, prayer, meditation and diary-writing; and family reading, prayer and discussion. There were precedents for many of these practices before printing, for

example in the Catholic movement called the *devotio moderna*. But it was printing that, by making rulebooks and manuals available to many more people, let these practices become widespread.[62]

I will take most of my examples from English (and New England) Puritanism. This is partly because Puritanism has generated a uniquely large and fruitful historical literature, but also because Puritanism was influential across Protestant Europe. For instance, the translation of Puritan devotional literature into German strongly influenced the Pietist movement of the 17th and 18th centuries, which in turn was taken up by the nascent Prussian state; later Pietism returned the favour by influencing 18th-century Methodism. Puritan works were also widely received in Holland. On the Catholic side, the deep focus on the state of the believer's soul and on practices to guide it can be found in various Catholic movements, including the Jesuits, who practiced a quasi-military form of spiritual discipline, and the French quietists. Jesuit and counter-reformation thought may have influenced the English Puritans.[63]

Reading was not just a way the new practices spread, it was a key practice itself. "To reade the word, and to meditate thereon, is a daily part of a Christian holy life," said the New England Puritan John Cotton. The most important text was of course the Bible, but this was supplemented by a whole literature on self-improvement. Some works were on nearly as many bookshelves as the Bible itself, and remained there for centuries: in English, *Foxe's Book of Martyrs*, the *Whole Duty of Man* and later *Pilgrim's Progress*; in Germany, the anonymous *Theologia Germanica* and Johann Arndt's *Das Wahre Christentum* ("True Christianity"), which was popular throughout Protestant Europe. The private reading encouraged by Protestants could be highly methodical and intellectual. In his text for preachers *The Art of Prophesying*, the Puritan William Perkins recommended cataloguing-style techniques for bible study, using a commonplace book: "divide the right-hand pages of your book into columns... Head each of these pages with a major topic...". He also suggested creating an alphabetical

index for ease of reference. Devotional manuals laid down rules for reading, including making it part of one's daily routine and avoiding wandering thoughts, and provided model prayers to be said before reading. But reading was not just an intellectual activity: the Bible was to be read and meditated upon, and manuals suggested visualization techniques like imagining Christ on the cross to bring the message home. [64]

Many people also wrote. In particular, diary-writing and autobiography were designed to chart the individual's daily progress to salvation. They allowed for self-examination, both spiritual and practical: "I spoke two unadvised Words to Day.... I was too forgetful of God, and extending in Tobacco," wrote one New England diarist. Nightly diaries could be a form of accounting, recording how one had spent one's time in the day, perhaps including a list of the sins one had committed. Later, these diaries might be worked up into spiritual autobiographies, narrating the believer's religious experience for the benefit of others.[65]

Typically, prayer might refer back to earlier reading of the Bible, or heard sermons. People prayed both individually, often seeking out solitary places or retiring to their bedchamber, and collectively in the family. Prayer was linked to meditation – both internal monologue, and visualization – on Biblical themes. More generally, meditation meant focusing on one's own mental state. Don't think of modern Buddhism: this focus was vigilant and critical. The aim was to notice, and repent of, one's sins in thought, word and deed, and the long-term goal was to transform the self, not accept it. Believers must "learne to force our natures"; to "rule and beare sway even as Kings over our owne thoughts, wils, affections, over-mastering them". This was supplemented with the help of a large number of rules of life, derived from the Bible but applied to the context of early modern life. One believer levied fines on himself for breaking them, putting money into a personal poor box – a practice which survives in the "swear box". Some self-improvement books provided a daily schedule to keep to; over the week, the Sunday rest provided a full stop for disciplined reflection. [66]

These practices brought a new level of introspection to people's consciousness, an awareness of and focus on the state of one's soul. Philosophers sometimes call this "interiority". I will use the word *inwardness*.[67] Inwardness means being aware of one's own consciousness, including one's beliefs and thoughts. This is a fundamental capability of human psychology. At the same time, it is partly a cultural achievement. This is true in two ways. First, introspection was pursued by members of the new religions because their beliefs encouraged it. Second, the practice of inwardness was made easier, even made possible in some ways, by the technology of the book and literacy. For writing helps individuals to fix their beliefs, that is, to map their shifting mental states to a clear set of propositions. This is not a natural ability, and there is no single, "natural" way to perform the mapping. In the course of an hour, I may have many thoughts, even many which are articulated in language, but not all of these will qualify as beliefs. To some extent my beliefs are chosen. One can even argue that the need to choose what to write down helps to produce, or clarify, the phenomenon of belief itself. A belief is more than a passing thought: it is a proposition one endorses and is prepared to defend. Endorsing and arguing for beliefs are social practices, and the way these have been done in the West is linked to the practice of writing. Because print helped to turn reading and writing from a rare, specialized skill into a central plank of social organization, it also helped to spread the practices of inwardness; and as the practices spread, they elaborated.

It is worth considering at the broadest level why the practice of inwardness matters. The solitary thinker can do two things: first, he may compare his current thoughts with his past ideas, testing and adjusting them for mutual coherence. Doing so makes sure that beliefs and fundamental commitments persist within the individual's psychology – sometimes, also, that they are revised in the light of new ideas and new evidence. Second, especially when he has access to ideas recorded in writing, he may do the same testing and adjusting with the ideas of other people from the past.

These practices provide an anchor for society. Communication between individuals can share ideas, develop consensus and strengthen norms, allowing a group of present individuals to reach a collective decision about what to do. But to be successful in the long run, communities must also be able to retain their identity and purposes through time. This means not just developing consensus, but also breaking an existing consensus when times have changed, or when existing practices and beliefs have declined from the original ideals, perhaps under the pressure of self-interest. The ability to challenge society's current practice and intellectual consensus, in the name of its deeper long-run commitments, is what allows continuity of purpose through the changes of history. Such challenges are present in many of the steps forward made by our societies, such as the long campaign by religiously-motivated reformers to end the Transatlantic slave trade.

Inwardness, then, is a fundamental part of our mental furniture, which is nevertheless a historical achievement. This alone makes it important. As we will see below, it also plays a role in the development of one of the central facts of modern democratic politics: public opinion.

Teaching institutions

All this disciplined focus on the self did not take place in a social vacuum. Its first and most important context was the household, which in these days included both blood relations and servants and apprentices, and which was a political and economic unit as well as a domestic space. Just as the new religion developed individual techniques for shaping the self, it developed new ways for households to work together. English Puritans published numerous manuals of household government, with titles like *Of Domesticall Duties*, *A Godly Form of Household Government*, or *A Christian Family Builded by God*. It was commonplace to describe the household as a little "commonwealth" with the father as the head of state. Calvinism went further and insisted that