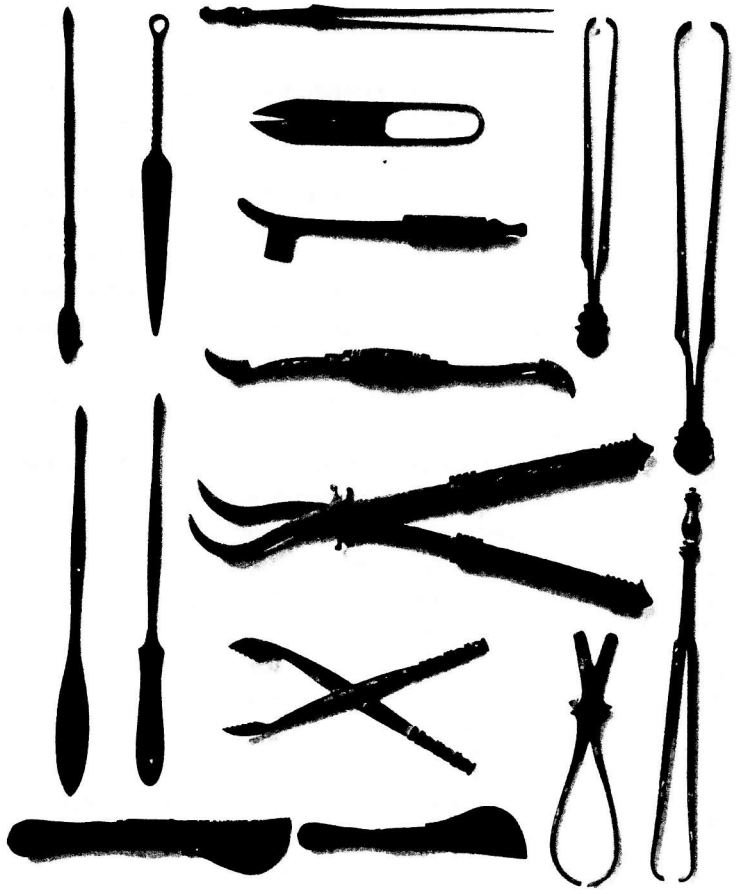

As these surgical instruments found in Pompeii reveal, the Romans understood human anatomy. But because they did not know germs even existed, they could not treat communicable diseases.

✣ CHAPTER 4 ✣

Epidemics, Networks, and Conversion

In 165, during the reign of Marcus Aurelius, a devastating epidemic swept through the Roman Empire. Some medical historians suspect that it was the first appearance of smallpox in the West (Zinsser [1934] 1960). But whatever the actual disease, it was lethal. During the fifteen-year duration of the epidemic, from a quarter to a third of the empire's population died from it, including Marcus Aurelius himself, in 180 in Vienna (Boak 1947; Russell 1958; Gilliam 1961; McNeill 1976). Then in 251 a new and equally devastating epidemic again swept the empire, hitting the rural areas as hard as the cities (Boak 1955a, 1955b; Russell 1958; McNeill 1976). This time it may have been measles. Both smallpox and measles can produce massive mortality rates when they strike a previously unexposed population (Neel et al. 1970).

Although, as we shall see, these demographic disasters were reported by contemporary writers, the role they likely played in the decline of Rome was ignored by historians until modern times (Zinsser [1934] 1960; Boak 1947). Now, however, historians recognize that acute depopulation was responsible for policies once attributed to moral degeneration. For example, massive resettlement of "barbarians" as landholders within the empire and their induction into the legions did not reflect Roman decadence but were rational policies implemented by a state with an abundance of vacant estates and lacking manpower (Boak 1955a). In his now-classic and pioneering work

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on the impact of epidemics on history, Hans Zinsser pointed out that

> again and again, the forward march of Roman power and world organization was interrupted by the only force against which political genius and military valor were utterly helpless—epidemic disease . . . and when it came, as though carried by storm clouds, all other things gave way, and men crouched in terror, abandoning all their quarrels, undertakings, and ambitions, until the tempest had blown over. ([1934] 1960:99)

But while historians of Rome have been busy making good the oversights of earlier generations, the same cannot be said of historians of the early Christian era. The words "epidemic," "plague," and "disease" do not even appear in the index of the most respected recent works on the rise of Christianity (Frend 1984; MacMullen 1984). This is no small omission. Indeed, Cyprian, Dionysius, Eusebius, and other church fathers thought the epidemics made major contributions to the Christian cause. I think so too. In this chapter I suggest that had classical society not been disrupted and demoralized by these catastrophes, Christianity might never have become so dominant a faith. To this end, I shall develop three theses.

The first of these can be found in the writings of Cyprian, bishop of Carthage. The epidemics swamped the explanatory and comforting capacities of paganism and of Hellenic philosophies. In contrast, Christianity offered a much more satisfactory account of why these terrible times had fallen upon humanity, and it projected a hopeful, even enthusiastic, portrait of the future.

The second is to be found in an Easter letter by Dionysius, bishop of Alexandria. Christian values of love and charity had, from the beginning, been translated into norms of social service and community solidarity. When disasters struck, the Christians were better able to cope, and this resulted in *substantially higher rates of survival.* This meant that in the aftermath of each

epidemic, Christians made up a larger percentage of the population even without new converts. Moreover, their noticeably better survival rate would have seemed a "miracle" to Christians and pagans alike, and this ought to have influenced conversion.

Let me acknowledge that, as I consulted sources on the historical impact of epidemics, I discovered these two points discussed briefly in William H. McNeill's superb *Plagues and Peoples* (1976:108–109). I could not recall having read them before. I must have done so, but at a time when I was more interested in the fall of Rome than in the rise of Christianity. In any event, both points have a substantial social scientific pedigree as elements in the analysis of "revitalization movements"—the rise of new religions as a response to social crises (Wallace 1956, 1966; Thornton 1981; Champagne 1983; Stark and Bainbridge 1985, 1987).

My third thesis is an application of control theories of conformity (Hirschi 1969; Stark and Bainbridge 1985, 1987). When an epidemic destroys a substantial proportion of a population, it leaves large numbers of people without the interpersonal attachments that had previously bound them to the conventional moral order. As mortality mounted during each of these epidemics, large numbers of people, especially pagans, would have *lost the bonds* that once might have restrained them from becoming Christians. Meanwhile, the superior rates of survival of Christian social networks would have provided pagans with a much greater probability of replacing their lost attachments with new ones to Christians. In this way, very substantial numbers of pagans would have been shifted from mainly pagan to mainly Christian social networks. In any era, such a shifting of social networks will result in religious conversions, as was outlined in chapter 1.

In what follows I will expand each of these arguments and offer evidence that it applies. But first, I must sketch the extent of these two epidemics and their demographic impact.

The Epidemics

The great epidemic of the second century, which is sometimes referred to as the "Plague of Galen," first struck the army of Verus during its campaigns in the East in 165 and from there spread across the empire. The mortality was so high in many cities that Marcus Aurelius spoke of caravans of carts and wagons hauling the dead from cities. Hans Zinsser noted that

> so many people died that cities and villages in Italy and in the provinces were abandoned and fell into ruin. Distress and disorganization was so severe that a campaign against the Marcommani was postponed. When, in 169, the war was finally resumed, Haeser records that many of the Germanic warriors—men and women—were found dead on the field without wounds, having died from the epidemic. ([1934] 1960:100)

We cannot know the actual mortality rate with any certainty, although there is no doubt that it was high. Seeck's 1910 estimate that over half the empire's population perished now seems too high (see Littman and Littman 1973). Conversely, Gilliam's conclusion that only 1 percent died is incompatible even with his own assertion that "a great and destructive epidemic took place under Marcus Aurelius" (1961:249).

The Littmans (1973) propose a rate of 7 to 10 percent, but they arrive at it by selecting smallpox epidemics in Minneapolis during 1924–1925 and in western Prussia in 1874 as the relevant comparisons, and ignoring the far higher fatalities for smallpox epidemics in less modern societies with populations lacking substantial prior exposure. I am most persuaded by McNeill's (1976) estimate that from a quarter to a third of the population perished during this epidemic. Such high mortality is consistent with modern knowledge of epidemiology. It is also consistent with analyses of subsequent manpower shortages (Boak 1955a).

Almost a century later a second terrible epidemic struck the

Roman world. At its height, five thousand people a day were reported to have died in the city of Rome alone (McNeill 1976). And for this epidemic we have many contemporary reports, especially from Christian sources. Thus Cyprian, bishop of Carthage, wrote in 251 that "many of us are dying" from "this plague and pestilence" (*Mortality*, 1958 ed.). Several years later Dionysius, bishop of Alexandria, wrote in an Easter message that "out of the blue came this disease, a thing . . . more frightful than any disaster whatever" (Eusebius, *The History of the Church*, 1965 ed.).

These disasters were not limited to the cities. McNeill (1976) suggests that the death toll may have been even higher in rural areas. Boak (1955b) has calculated that the small town of Karanis, in Egypt, may have lost more than a third of its population during the first epidemic. Calculations based on Dionysius's account suggest that two-thirds of Alexandria's population may have perished (Boak 1947). Such death rates have been documented in many other times and places when a serious infectious disease has struck a population not recently exposed to it. For example, in 1707 smallpox killed more than 30 percent of the population of Iceland (Hopkins 1983). In any event, my concern here is not epidemiological. It is, rather, with the human experience of such crisis and calamity.

Crisis and Faith

Frequently in human history, crises produced by natural or social disasters have been translated into crises of faith. Typically this occurs because the disaster places demands upon the prevailing religion that it appears unable to meet. This inability can occur at two levels. First, the religion may fail to provide a satisfactory explanation of *why* the disaster occurred. Second, the religion may seem to be *unavailing* against the disaster, which becomes truly critical when all nonreligious means also prove inadequate—when the supernatural remains the only

plausible source of help. In response to these "failures" of their traditional faiths, societies frequently have evolved or adopted new faiths. The classic instance is the series of messianic movements that periodically swept through the Indians of North America in response to their failures to withstand encroachments by European settlers (Mooney 1896). The prevalence of new religious movements in societies undergoing rapid modernization also illustrates the point. Bryan Wilson (1975) has surveyed many such episodes from around the world.

In a now-famous essay, Anthony F. C. Wallace (1956) argued that *all* religions arise in response to crises. That seems a needlessly extreme view, but there is abundant evidence that faith seldom is "blind," in the sense that religions frequently *are discarded* and new ones accepted in troubled times, and surely periods of raging epidemics meet the requirements outlined by Wallace.

In this chapter I will contrast Christianity's ability to explain the epidemics with that of its competitors in the Greco-Roman world. I also will examine the many ways in which Christianity not only seemed to be, but actually was, *efficacious.* This too is typical. Indeed, this is why the term "revitalization movement" is applied to new religions that arise during times of crisis—the name indicates the positive contributions such movements often make by "revitalizing" the capacity of a culture to deal with its problems.

How do religions "revitalize?" Primarily by effectively mobilizing people to attempt collective actions. Thus the new religious movements among the North American Indians during the eighteenth and nineteenth centuries initially revitalized these societies by greatly reducing drunkenness and despair, and then provided an effective framework for joining fragmented bands into an organized political unit capable of concerted action. That these proved unable to withstand white encroachments in the long run must not obscure the obvious early benefits and how these "proved" the new faith's validity. In

this way new ideas or theologies often generate new social arrangements that are better suited to the new circumstances.

Social scientists typically are trained to be suspicious of "theological" or "ideological" explanations and often suppose that these are epiphenomena easily reduced to the "real" causes, which are material in nature. This is true even of some social scientists who specialize in studies of early Christianity. However, I shall demonstrate in this chapter, and many times throughout the book, that ideas often are critical factors in determining not only individual behavior but, indeed, the path of history. To be more specific, for people in the Greco-Roman world, to be a Christian or a pagan was not simply a matter of "denominational preference." Rather, the *contents* of Christian and pagan beliefs were *different* in ways that greatly determined not only their explanatory capacities but also their relative capacities to mobilize human resources.

To assess these differences between pagans and Christians, let us imagine ourselves in their places, faced with one of these terrible epidemics.

Here we are in a city stinking of death. All around us, our family and friends are dropping. We can never be sure if or when we will fall sick too. In the midst of such appalling circumstances, humans are driven to ask *Why?* Why is this happening? Why them and not me? Will we all die? Why does the world exist, anyway? What is going to happen next? What can we do?

If we are pagans, we probably already know that our priests profess ignorance. They do not know why the gods have sent such misery—or if, in fact, the gods are involved or even care (Harnack 1908, vol. 2). Worse yet, many of our priests have fled the city, as have the highest civil authorities and the wealthiest families, which adds to the disorder and suffering.

Suppose that instead of being pagans we are philosophers. Even if we reject the gods and profess one or another school of Greek philosophy, we still have no answers. Natural law is no

help in saying why suffering abounds, at least not if we seek to find *meaning* in the reasons. To say that survival is a matter of luck makes the life of the individual seem trivial. Cicero expressed the incapacity of classical as well as modern humanism to provide meaning (or perhaps I should say "meaningfulness"), when he explained that "it depends on fortune or (as we should say) 'conditions' whether we are to experience prosperity or adversity. Certain events are, indeed, due to natural causes beyond human control" (quoted in Cochrane [1940] 1957:100).

Moreover, for a science that knows nothing of bacteria (let alone viruses) the phrase "natural causes" in connection with these great epidemics is simply how philosophers say, "Who knows?" I am not here disputing that survival was in fact substantially random or that the epidemics had natural causes. But I do claim that people will prefer explanations which assert that such events reflect underlying historical intentions, that the larger contours of life are coherent and explicable. Not only were the philosophers of the time unable to provide such meanings, but from the point of view of classical science and philosophy these events were indeed beyond human control, for no useful medical courses of action could be suggested. Indeed, the philosophers of the period could think of nothing more insightful than to anthropomorphize society and blame senility. As Cochrane put it, "while a deadly plague was ravaging the empire . . . the sophists prattled vaguely about the exhaustion of virtue in a world growing old" ([1940] 1957:155).

But if we are Christians, our faith does claim to have answers. McNeill summed them up this way:

> Another advantage Christians enjoyed over pagans was that the teaching of their faith made life meaningful even amid sudden and surprising death. . . . [E]ven a shattered remnant of survivors who had somehow made it through war or pestilence or both could find warm, immediate and healing consolation in the vision of a heavenly existence for those missing relatives and

> friends. . . . Christianity was, therefore, a system of thought and feeling thoroughly adapted to a time of troubles in which hardship, disease, and violent death commonly prevailed. (1976:108)

Cyprian, bishop of Carthage, seems almost to have welcomed the great epidemic of his time. Writing in 251 he claimed that only non-Christians had anything to fear from the plague. Moreover, he noted that although

> the just are dying with the unjust, it is not for you to think that the destruction is a common one for both the evil and the good. The just are called to refreshment, the unjust are carried off to torture; protection is more quickly given to the faithful; punishment to the faithless. . . . How suitable, how necessary it is that this plague and pestilence, which seems horrible and deadly, searches out the justice of each and every one and examines the minds of the human race; whether the well care for the sick, whether relatives dutifully love their kinsmen as they should, whether masters show compassion for their ailing slaves, whether physicians do not desert the afflicted. . . . Although this mortality has contributed nothing else, it has especially accomplished this for Christians and servants of God, that we have begun gladly to seek martyrdom while we are learning not to fear death. These are trying exercises for us, not deaths; they give to the mind the glory of fortitude; by contempt of death they prepare for the crown. . . . [O]ur brethren who have been freed from the world by the summons of the Lord should not be mourned, since we know that they are not lost but sent before; that in departing they lead the way; that as travellers, as voyagers are wont to be, they should be longed for, not lamented . . . and that no occasion should be given to pagans to censure us deservedly and justly, on the ground that we grieve for those who we say are living. (*Mortality* 15–20, 1958 ed.)

His fellow bishop Dionysius addressed his Alexandrian members in similar tones. "Other people would not think this a time for festival," he wrote, but "far from being a time of distress, it

is a time of unimaginable joy" (*Festival Letters*, quoted by Eusebius, *Ecclesiastical History* 7.22, 1965 ed.). Acknowledging the huge death rate, Dionysius noted that though this terrified the pagans, Christians greeted the epidemic as merely "schooling and testing." Thus, at a time when all other faiths were called to question, Christianity offered explanation and comfort. Even more important, Christian doctrine provided a *prescription for action.* That is, the Christian way appeared to work.

Survival Rates and the Golden Rule

At the height of the second great epidemic, around 260, in the Easter letter already quoted above, Dionysius wrote a lengthy tribute to the heroic nursing efforts of local Christians, many of whom lost their lives while caring for others.

> Most of our brother Christians showed unbounded love and loyalty, never sparing themselves and thinking only of one another. Heedless of danger, they took charge of the sick, attending to their every need and ministering to them in Christ, and with them departed this life serenely happy; for they were infected by others with the disease, drawing on themselves the sickness of their neighbors and cheerfully accepting their pains. Many, in nursing and curing others, transferred their death to themselves and died in their stead. . . . The best of our brothers lost their lives in this manner, a number of presbyters, deacons, and laymen winning high commendation so that death in this form, the result of great piety and strong faith, seems in every way the equal of martyrdom.

Dionysius emphasized the heavy mortality of the epidemic by asserting how much happier survivers would be had they merely, like the Egyptians in the time of Moses, lost the firstborn from each house. For "there is not a house in which there is not one dead—how I wish it had been only one." But while

the epidemic had not passed over the Christians, he suggests that pagans fared much worse: "Its full impact fell on the heathen."

Dionysius also offered an explanation of this mortality differential. Having noted at length how the Christian community nursed the sick and dying and even spared nothing in preparing the dead for proper burial, he wrote:

> The heathen behaved in the very opposite way. At the first onset of the disease, they pushed the sufferers away and fled from their dearest, throwing them into the roads before they were dead and treated unburied corpses as dirt, hoping thereby to avert the spread and contagion of the fatal disease; but do what they might, they found it difficult to escape.

But should we believe him? If we are to assess Dionysius's claims, it must be demonstrated that the Christians actually did minister to the sick while the pagans mostly did not. It also must be shown that these different patterns of responses would result in substantial differences in mortality.

Christian and Pagan Responses

It seems highly unlikely that a bishop would write a pastoral letter full of false claims about things that his parishioners would know from direct observation. So if he claims that many leading members of the diocese have perished while nursing the sick, it is reasonable to believe that this happened. Moreover, there is compelling evidence from pagan sources that this was characteristic Christian behavior. Thus, a century later, the emperor Julian launched a campaign to institute pagan charities in an effort to match the Christians. Julian complained in a letter to the high priest of Galatia in 362 that the pagans needed to equal the virtues of Christians, for recent Christian growth was caused by their "moral character, even if pretended," and by

their "benevolence toward strangers and care for the graves of the dead." In a letter to another priest, Julian wrote, "I think that when the poor happened to be neglected and overlooked by the priests, the impious Galileans observed this and devoted themselves to benevolence." And he also wrote, "The impious Galileans support not only their poor, but ours as well, everyone can see that our people lack aid from us" (quoted in Johnson 1976:75; Ayerst and Fisher 1971:179–181).

Clearly, Julian loathed "the Galileans." He even suspected that their benevolence had ulterior motives. But he recognized that his charities and that of organized paganism paled in comparison with Christian efforts that had created "a miniature welfare state in an empire which for the most part lacked social services" (Johnson 1976:75). By Julian's day in the fourth century it was too late to overtake this colossal result, the seeds for which had been planted in such teachings as "I am my brother's keeper," "Do unto others as you would have them do onto you," and "It is more blessed to give than to receive" (Grant 1977).

Julian's testimony also supported the claim that pagan communities did not match Christian levels of benevolence during the epidemics, since they did not do so even in normal times when the risks entailed by benevolence were much lower. But there is other evidence.

Some of the most detailed reporting on epidemics in the classical world is to be found in Thucydides' *History of the Peloponnesian War* (2.47–55). Thucydides was himself a survivor of a deadly plague that struck Athens in 431 B.C.E, having contracted the disease in the first days of the epidemic. Modern medical writers praise Thucydides' careful and detailed account of symptoms (Marks and Beatty 1976). At least as much can be said for his account of public responses.

Thucydides began by noting the ineffectiveness of both science and religion:

> The doctors were quite incapable of treating the disease because of their ignorance of the right methods. . . . Equally useless were prayers made in the temples, consultation of the oracles, and so forth; indeed, in the end people were so overcome by their sufferings that they paid no further attention to such things. (49, 1954 ed.)

Then he reported that once the contagious nature of the disease was recognized, people "were afraid to visit one another." As a result,

> they died with no one to look after them; indeed there were many houses in which all the inhabitants perished through lack of any attention. . . . The bodies of the dying were heaped one on top of the other, and half-dead creatures could be seen staggering about in the streets or flocking around the fountains in their desire for water. The temples in which they took up their quarters were full of the dead bodies of people who had died inside them. For the catastrophe was so overwhelming that men, not knowing what would happen next to them, became indifferent to every rule of religion or of law. . . . No fear of god or law of man had a restraining influence. As for the gods, it seemed to be the same thing whether one worshipped them or not, when one saw the good and the bad dying indiscriminately. (51–53, 1954 ed.)

Although separated from it by nearly seven centuries, this description of how pagan Athens reacted to a killing epidemic is strikingly similar to Dionysius's account of pagan responses to the epidemic in Alexandria. Thucydides acknowledged that some, who like himself had recovered from the disease and thus were immune, did try to nurse the sick, but their numbers seem to have been few. Moreover, Thucydides accepted that it was only sensible to flee epidemics and to shun contact with the sick.

It is also worth noting that the famous classical physician Galen lived through the first epidemic during the reign of Marcus Aurelius. What did he do? He got out of Rome quickly, retiring to a country estate in Asia Minor until the danger receded. In fact, modern medical historians have noted that Galen's description of the disease "is uncharacteristically in-

complete," and suggest that this may have been due to his hasty departure (Hopkins 1983). Granted, this is but one man's response, albeit that of a man much admired by later generations as the greatest physician of the age. But although at least one modern medical historian has felt the need to write an exculpatory essay on Galen's flight (Walsh 1931), it was not seen as unusual or discreditable at the time. It was what any prudent person would have done, had they the means—unless, of course, they were "Galileans."

Here issues of doctrine must be addressed. For something distinctive did come into the world with the development of Judeo-Christian thought: the linking of a highly *social* ethical code with religion. There was nothing new in the idea that the supernatural makes behavioral demands upon humans—the gods have always wanted sacrifices and worship. Nor was there anything new in the notion that the supernatural will respond to offerings—that the gods can be induced to exchange services for sacrifices. What was new was the notion that more than self-interested exchange relations were possible between humans and the supernatural. The Christian teaching that God loves those who love him was alien to pagan beliefs. MacMullen has noted that from the pagan perspective "what mattered was . . . the service that the deity could provide, since a god (as Aristotle had long taught) could feel no love in response to that offered" (1981:53). Equally alien to paganism was the notion that because God loves humanity, Christians cannot please God unless they *love one another.* Indeed, as God demonstrates his love through sacrifice, humans must demonstrate their love through sacrifice on behalf of *one another.* Moreover, such responsibilities were to be extended beyond the bonds of family and tribe, indeed to "all those who in every place call on the name of our Lord Jesus Christ" (1 Cor. 1:2). These were revolutionary ideas.

Pagan and Christian writers are unanimous not only that Christian Scripture stressed love and charity as the central duties of faith, but that these were sustained in everyday behavior.

I suggest reading the following passage from Matthew (25:35–40) as if for the very first time, in order to gain insight into the power of this new morality when it was *new,* not centuries later in more cynical and worldly times:

> For I was hungry and you gave me food, I was thirsty and you gave me drink, I was a stranger and you welcomed me, I was naked and you clothed me, I was sick and you visited me, I was in prison and you came to me. . . . Truly, I say to you, as you did it to one of the least of these my brethren, you did it to me.

When the New Testament was *new,* these were the norms of the Christian communities. Tertullian claimed: "It is our care of the helpless, our practice of loving kindness that brands us in the eyes of many of our opponents. 'Only look,' they say, 'look how they love one another!'" (*Apology* 39, 1989 ed.).

Harnack quoted the duties of deacons as outlined in the *Apostolic Constitutions* to show that they were set apart for the support of the sick, infirm, poor, and disabled: "They are to be doers of good works, exercising a general supervision day and night, neither scorning the poor nor respecting the person of the rich; they must ascertain who are in distress and not exclude them from a share in church funds, compelling also the well-to-do to put money aside for good works" (1908: 1:161).

Or let us read what Pontianus reports in his biography of Cyprian about how the bishop instructed his Carthaginian flock:

> The people being assembled together, he first of all urges on them the benefits of mercy. . . . Then he proceeds to add that there is nothing remarkable in cherishing merely our own people with the due attentions of love, but that one might become perfect who should *do something more than heathen men or publicans,* one who, overcoming evil with good, and practicing a merciful kindness like that of God, should love his enemies as well. . . . Thus the good was done to all men, not merely to the household of faith. (Quoted in Harnack 1908: 1:172–173)

And, as we have seen, that is precisely what most concerned Julian as he worked to reverse the rise of Christianity and restore paganism. But for all that he urged pagan priests to match these Christian practices, there was little or no response because *there were no doctrinal bases or traditional practices* for them to build upon. It was not that Romans knew nothing of charity, but that it was not based on service to the gods. Pagan gods did not punish ethical violations because they imposed no ethical demands—humans offended the gods only through neglect or by violation of ritual standards (MacMullen 1981:58). Since pagan gods required only propitiation and beyond that left human affairs in human hands, a pagan priest could not preach that those lacking in the spirit of charity risked their salvation. Indeed, the pagan gods offered no salvation. They might be bribed to perform various services, but the gods did not provide an escape from mortality. We must keep that in sight as we compare the reactions of Christians and pagans to the shadow of sudden death. Galen lacked belief in life beyond death. The Christians were certain that this life was but prelude. For Galen to have remained in Rome to treat the afflicted would have required bravery far beyond that needed by Christians to do likewise.

Differential Mortality

But how much could it have mattered? Not even the best of Greco-Roman science knew anything to do to *treat* these epidemics other than to avoid all contact with those who had the disease. So even if the Christians did obey the injunction to minister to the sick, what could they do to help? At the risk of their own lives they could, in fact, save an immense number of lives. McNeill pointed out: "When all normal services break down, quite elementary nursing will greatly reduce mortality. Simple provision of food and water, for instance, will allow persons who are temporarily too weak to cope for themselves to recover instead of perishing miserably" (1976:108).

Some hypothetical numbers may help us grasp just how much impact Christian nursing could have had on mortality rates in these epidemics. Let us begin with a city having 10,000 inhabitants in 160, just before the first epidemic. In chapter 1, I calculated that Christians made up about 0.4 percent of the empire's population at this time, so let us suppose that 40 of this city's inhabitants are Christians, while 9,960 are pagans—a ratio of 1 Christian to 249 pagans. Now, let us assume an epidemic generating mortality rates of 30 percent over its course in a population left without nursing. Modern medical experts believe that conscientious nursing *without any medications* could cut the mortality rate by two-thirds or even more. So let us assume a Christian mortality rate of 10 percent. Imposing these mortality rates results in 36 Christian and 6,972 pagan survivors in 170, after the epidemic. Now the ratio of Christians to pagans is 1 to 197, a substantial shift.

However, there is no reason to suppose that the conversion of pagans to Christianity would have slowed during the epidemic—indeed, as we shall see, the rate might well have risen at this time. In keeping with the projected Christian conversion rate of 40 percent a decade, we must add 16 converts to the Christian total and subtract these 16 from the pagan total. This yields a ratio of 1 Christian per 134 pagans.

To keep things simple, let us suppose that the population of this city was static over the next 90 years, until hit by the second epidemic, and that the conversion rate of 40 percent a decade remained in effect. Let us also assume that the mortality rates of 10 and 30 percent apply again. After this epidemic was over, in 260, there would be 997 Christians and 4,062 pagans in this city. And this is a ratio of 1 Christian to 4 pagans. Had the two epidemics not occurred, and had conversion been the only factor determining the relative sizes of the Christian and pagan populations, then in 260 there would have been 1,157 Christians and 8,843 pagans, or a ratio of 1 Christian to 8 pagans. In fact, of course, the population would not have been static for this period. In the days before modern medicine, epidemics were always especially hard on the young and on pregnant women and

those suffering from childbirth-related infections (Russell 1958). Hence in the aftermath of serious epidemics the birthrate declined. With a much lower mortality rate, the Christian birthrate would have been much less influenced, and this too would have increased the ratio of Christians to pagans.

Thus an immense Christian gain would have occurred without their having made a single convert during the period. But, as noted, these same trends ought to have resulted in many converts. For one thing, if, during the crisis, Christians fulfilled their ideal of ministering to *everyone*, there would be many pagan survivors who owed their lives to their Christian neighbors. For another, no one could help but notice that Christians not only found the capacity to risk death but were much less likely to die.

As Kee (1983) has so powerfully reminded us, miracle was intrinsic to religious credibility in the Greco-Roman world. Modern scholars have too long been content to dismiss reports of miracles in the New Testament and in other similar sources as purely literary, not as things that happened. Yet we remain aware that in tabernacles all over modern America, healings are taking place. One need not propose that God is the active agent in these "cures" to recognize their reality both as events and as perceptions. Why then should we not accept that "miracles" were being done in New Testament times too, and that people expected them as proof of religious authenticity? Indeed, MacMullen regards it as self-evident that a great deal of conversion was based on a "visible show of divinity at work" (1981:126). He suggests that martyrdom would have been perceived as a miracle, for example.

Against this background, consider that a much superior Christian survival rate hardly could seem other than miraculous. Moreover, superior survival rates would have produced a much larger proportion of Christians who were *immune*, and who could, therefore, pass among the afflicted with seeming invulnerability. In fact, those Christians most active in nursing the sick were likely to have contracted the disease very early and

to have survived it as they, in turn, were cared for. In this way was created a whole force of miracle workers to heal the "dying." And who was to say that it was the soup they so patiently spooned to the helpless that healed them, rather than the prayers the Christians offered on their behalf?

Morality, Flight, and Attachments

I have stressed the importance of social networks in the conversion process. It is useful therefore to engage in some comparative analysis of epidemics' impact on the social networks of Christians and pagans, and how this would have changed their relative patterns of attachments. In general, I will demonstrate that an epidemic would have caused chaos in pagan social relations, leaving large numbers with but few attachments to other pagans meanwhile greatly increasing the relative probabilities of strong bonds between pagans and Christians.

Let us return to our hypothetical city and focus our attention on three varieties of interpersonal attachments: (1) Christian-Christian; (2) Christian-pagan; and (3) pagan-pagan. If we apply the differential mortality rates used above (10 percent for Christians, 30 percent for pagans), we can calculate the *survival odds* for each variety of *attachment*. That is, our interest here is not in the survival of individuals but in that of an attachment; hence our measure is the odds that both persons survive the epidemic. The survival rate for Christian-Christian bonds is 0.81 (or 81 percent). The survival rate for Christian-pagan bonds is 0.63. The survival rate for pagan-pagan bonds is 0.49. Thus not only are attachments among pagans almost twice as likely to perish as attachments among Christians, pagan bonds to Christians are also much more likely to survive than those uniting pagans to one another.

These attachment survival rates take only differential mortality into account. But attachments are also severed if one person leaves. Since we know that substantial numbers of pagans fled

epidemics (while Christians stayed), this too must be considered. Let us suppose that 20 percent of the pagan population fled. Now the survival rate of pagan-pagan attachments is 0.25 and that of Christian-pagan attachments is 0.45, while the Christian-Christian rate remains 0.81.

These rates assume, of course, that Christian victims of an epidemic received nursing care, while pagans did not. In fact, however, our sources testify that *some pagans* were nursed by Christians. Given the relative sizes of the Christian and pagan populations at the onset of the epidemic, Christians would not have had the resources to nurse all or even most sick pagans. Presumably, proximity and attachments would have determined which pagans would be cared for by Christians. That is, pagans who lived near Christians and/or who had close Christian friends (even relatives) would have been most likely to be nursed. Let us assume that Christian nursing was as conducive to survival for pagans as it was for Christians. That means that pagans nursed by Christians had noticeably higher survival rates than other pagans. But it also means that we should recalculate the Christian-pagan attachment survival rate. If we assume that pagans in these relationships had as good a chance of living as did the Christians, then the survival rate for these attachments is 0.81—more than three times the survival rate of pagan-pagan attachments.

Another way to look at this is to put oneself in the place of a pagan who, before the epidemic, had five very close attachments, four with pagans and one with a Christian. We could express this as a Christian-to-pagan attachment ratio of 1 to 4. Let us assume that this pagan remains in the city and survives. Subtracting mortality and flight results in a Christian-pagan attachment ratio of 0.8 to 1. What has happened is that where once there were four pagans to one Christian in this pagan's intimate circle, now there is, in effect, one of each—a dramatic equalization.

Not only would a much higher proportion of pagan survivors' attachments be to Christians simply because of the greater survival rate of those relationships; further, during and after

the epidemic the formation of new relationships would be increasingly biased in favor of Christians. One reason is that the nursing function is itself a major opportunity to form new bonds. Another is that it is easier to attach to a social network that is more rather than less intact. To see this, let us once again focus on the pagan who, after the epidemic, has one close Christian and one close pagan attachment. Suppose that he or she wishes to replace lost attachments—perhaps to remarry. The Christian friend still has many other attachments to extend to this pagan. The pagan friend, however, is very deficient in attachments. For the Christian, there is an 80 percent probability that any one of his or her Christian friends and relatives survived the epidemic and remained in the city. For the pagan, these odds are only 50 percent.

The consequence of all this is that pagan survivors faced greatly increased odds of conversion because of their increased attachments to Christians.

Conclusion

Several modern writers have warned against analyzing the rise of Christianity as though it were inevitable, as earlier generations of Christian historians tended to do. That is, since we know that indeed the tiny and obscure Jesus Movement managed, over the course of several centuries, to dominate Western civilization, our historical perceptions suffer from overconfidence. As a result, scholars more often recount, rather than try to account for, the Christianization of the West, and in doing so seem to take "the end of paganism for granted," as Peter Brown (1964:109) has noted.

In fact, of course, the rise of Christianity was long and perilous. There were many crisis points when different outcomes could easily have followed. Moreover, in this chapter I have argued that had some crises *not occurred*, the Christians would have been deprived of major, possibly crucial opportunities.

MacMullen has warned us that this "enormous thing called

paganism, then, did not one day just topple over dead" (1981:134). Paganism, after all, was an active, vital part of the rise of Hellenic and Roman empires and therefore *must* have had the capacity to fulfill basic religious impulses—at least for centuries. But the fact remains that paganism did pass into history. And if some truly devastating blows were required to bring down this "enormous thing," the terrifying crises produced by two disastrous epidemics may have been among the more damaging. If I am right, then in a sense paganism did indeed "topple over dead" or at least acquire its fatal illness during these epidemics, falling victim to its relative inability to confront these crises socially or spiritually—an inability suddenly revealed by the example of its upstart challenger. I shall return to these themes in the final two chapters.

The Role of Women in Christian Growth

AMIDST contemporary denunciations of Christianity as patriarchal and sexist, it is easily forgotten that the early church was so especially attractive to women that in 370 the emperor Valentinian issued a written order to Pope Damasus I requiring that Christian missionaries cease calling at the homes of pagan women. Although some classical writers claimed that women were easy prey for *any* "foreign superstition," most recognized that Christianity was unusually appealing because within the Christian subculture women enjoyed far higher status than did women in the Greco-Roman world at large (Fox 1987; Chadwick 1967; Harnack 1908, vol. 2).

But if historians have long noted this fact, they have made no serious efforts to explain it. Why were women accorded higher status in Christian circles than elsewhere in the classical world? In what follows I shall attempt to link the increased power and privilege of Christian women to a very major shift in sex ratios. I demonstrate that an initial shift in sex ratios resulted from Christian doctrines prohibiting infanticide and abortion; I then show how the initial shift would have been amplified by a subsequent tendency to overrecruit women. Along the way I shall summarize evidence from ancient sources as well as from modern archaeology and historical demography concerning the status of women in the early church. I will also build a case for accepting that relatively high rates of intermarriage existed between Christian women and pagan men, and will suggest how these would have generated many "secondary" conversions to Christianity. Finally, I will demonstrate why Christian and

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Because infanticide was outlawed and because women were more likely than men to convert, among Christians there soon were far more women than men, while among pagans men far outnumbered women

pagan subcultures must have differed greatly in their fertility rates and how a superior birthrate also contributed to the success of the early church.

Christian and Pagan Sex Ratios

Men greatly outnumbered women in the Greco-Roman world. Dio Cassius, writing in about 200, attributed the declining population of the empire to the extreme shortage of females (*The Roman History*, 1987 ed.). In his classic work on ancient and medieval populations, J. C. Russell (1958) estimated that there were 131 males per 100 females in the city of Rome, and 140 males per 100 females in Italy, Asia Minor, and North Africa. Russell noted in passing that sex ratios this extreme can occur only when there is "some tampering with human life" (1958:14). And tampering there was. Exposure of unwanted female infants and deformed male infants was legal, morally accepted, and widely practiced by all social classes in the Greco-Roman world (Fox 1987; Gorman 1982; Pomeroy 1975; Russell 1958). Lindsay reported that even in large families "more than one daughter was practically never reared" (1968:168). A study of inscriptions at Delphi made it possible to reconstruct six hundred families. Of these, only six had raised more than one daughter (Lindsay 1968).

The subject of female infanticide will be pursued at length later in the chapter. For now, consider a letter written by one Hilarion to his pregnant wife Alis, which has been reported by many authors because of the quite extraordinary contrast between his deep concern for his wife and his hoped-for son, and his utter callousness toward a possible daughter:

> Know that I am still in Alexandria. And do not worry if they all come back and I remain in Alexandria. I ask and beg you to take good care of our baby son, and as soon as I receive payment I shall send it up to you. If you are delivered of a child [before I

> come home], if it is a boy keep it, if a girl discard it. You have sent me word, "Don't forget me." How can I forget you. I beg you not to worry. (Quoted in Lewis 1985:54)

This letter dates from the year 1 B.C.E., but these patterns persisted among pagans far into the Christian era. Given these practices, even in childhood, before the onset of the high female mortality associated with fertility in premodern times, females were substantially outnumbered among pagans in the Greco-Roman world. Moreover, it was not just the high mortality from childbirth that continued to increase the sex ratios among adults. As we shall see in detail later in the chapter, abortion was a major cause of death among women in this era.

However, things were different among Christians as their distinctive subculture began to emerge. There are few hard data on the sex composition of Christian communities. Harnack calculated that in his Epistle to the Romans Paul sent personal greetings to fifteen women and eighteen men (1908: 2:67). If, as Harnack implies, it seems likely that there were proportionately more men than women among those Christians of sufficient prominence to merit Paul's special attention, then this 15/18 sex ratio would indicate that the congregation in Rome must already have been predominately female. A second basis for inference is an inventory of property removed from a Christian house-church in the North African town of Cirta during a persecution in 303. Among the clothes the Christians had collected for distribution to the needy were sixteen men's tunics and eighty-two women's tunics, as well as forty-seven pairs of female slippers (Frend 1984; Fox 1987). Presumably this partly reflects the ratio of men to women among the donors. But even though better statistics are lacking, the predominance of women in the churches' membership was, as Fox reported, "recognized to be so by Christians and pagans" (1987:308). Indeed, Harnack noted that the ancient sources

> simply swarm with tales of how women of all ranks were converted in Rome and in the provinces; although the details of

> these stories are untrustworthy, they express correctly enough the general truth that Christianity was laid hold of by women in particular, and also that the percentage of Christian women, especially among the upper classes, was larger than that of men. (1908: 2:73)

These conclusions about Christian sex ratios merit our confidence when we examine *why* sex ratios should have been so different among the Christians. First, by prohibiting all forms of infanticide and abortion, Christians removed major causes of the gender imbalance that existed among pagans. Even so, changes in mortality alone probably could not have resulted in Christian women's coming to outnumber Christian men. However, there was a second factor influencing Christian sex ratios: women were more likely than men to become Christians. This, combined with the reduction in female mortality, *would* have caused a surplus of women in the Christian subcultures.

Sex Bias in Conversion

In his widely admired monograph on the early church, the British historian Henry Chadwick noted that "Christianity seems to have been especially successful among women. It was often through the wives that it penetrated the upper classes of society in the first instance" (1967:56). Peter Brown noted that "women were prominent" among upper-class Christians and that "such women could influence their husbands to protect the church" (1988:151). Marcia, concubine of the emperor Commodus, managed to convince him to free Callistus, a future pope, from a sentence of hard labor in the mines of Sardinia (Brown 1988). Although Marcia failed to secure the conversion of Commodus, other upper-class women often did bring husbands and admirers to faith.

It will be helpful here to distinguish between primary and secondary conversions. In *primary conversion*, the convert takes

an active role in his or her own conversion, becoming a committed adherent based on positive evaluations of the particular faith, albeit that attachments to members play a major role in the formation of a positive evaluation. *Secondary conversion* is more passive and involves somewhat reluctant acceptance of a faith on the basis of attachments to a primary convert. For example, after person A converted to a new faith, that person's spouse agreed to "go along" with the choice, but was not eager to do so and very likely would not have done so otherwise. The latter is a secondary convert. In the example offered by Chadwick, upper-class wives were often primary converts and some of their husbands (often grudgingly) became secondary converts. Indeed, it frequently occurred that when the master of a large household became a Christian, all members of the household including the servants and slaves were expected to do so too.

The ancient sources and modern historians agree that primary conversion to Christianity was far more prevalent among females than among males. Moreover, this appears to be typical of new religious movements in recent times. By examining manuscript census returns for the latter half of the nineteenth century, Bainbridge (1982) found that approximately two-thirds of the Shakers were female. Data on religious movements included in the 1926 census of religious bodies show that 75 percent of Christian Scientists were women, as were more than 60 percent of Theosophists, Swedenborgians, and Spiritualists (Stark and Bainbridge 1985). The same is true of the immense wave of Protestant conversions taking place in Latin America. In fact, David Martin (1990) suggests that a substantial proportion of male Protestants in Latin America are secondary converts.[1]

There have been several interesting efforts to explain why women in many different times and places seem to be far more responsive than men to religion (Thompson 1991; Miller and Hoffman 1995). However, this is not an appropriate place to pursue the matter. Here it is sufficient to explore the impact of

differential conversion rates on the sex ratios of the Christian subcultures in the Greco-Roman world. Given several reasonable assumptions, simple arithmetic suffices to assess the magnitude of the changes differential conversion rates could have produced.

Let us begin with a Christian population with equal numbers of men and women. Let us assume a growth rate from *conversion alone* of 30 percent per decade. That is, for the moment we will ignore any natural increase and assume that births equal deaths. Let us also suppose that the sex ratio among converts is two women for every man. As noted above, this is entirely in line with recent experience. Given these reasonable assumptions, we can easily calculate that it will take only fifty years for this Christian population to be 62 percent female. Or if we assume a growth rate of 40 percent per decade, the Christian population will be 64 percent female in fifty years.

If we were to factor in reasonable assumptions about natural increase and differential mortality, we would decrease this sex ratio to some extent. But even so, the Christian subcultures would have had a substantial surplus of women in a world accustomed to a vast surplus of men. Later in this chapter I shall consider how a surplus of women should have resulted in substantial secondary conversions via marriages to pagans. But for now I wish to focus on the simple conclusion that there are abundant reasons to accept that Christian women enjoyed a favorable sex ratio, and to show how that resulted in Christian women's enjoying superior status in comparison with their pagan counterparts.

Sex Ratios and the Status of Women

One of the more significant and original contributions to social thought in recent years is the Guttentag and Secord (1983) theory linking cross-cultural variations in the status of women to cross-cultural variations in sex ratios. The theory involves a re-

markably subtle linking of dyadic and social structural power and dependency. For the purposes of this chapter it is sufficient merely to note Guttentag and Secord's conclusion that to the extent that males outnumber females, women will be enclosed in repressive sex roles as men treat them as "scarce goods." Conversely, to the extent that females outnumber males, the Guttentag and Secord theory predicts that women will enjoy relatively greater power and freedom.

As they applied their theory to various societies in different eras, Guttentag and Secord noted that it illuminated the marked differences in the relative status and power of Athenian and Spartan women. That is, *within* the classical world, the status of women varied substantially in response to variations in sex ratios.

In Athens, women were in relatively short supply owing to female infanticide, practiced by all classes, and to additional deaths caused by abortion. The status of Athenian women was very low. Girls received little or no education. Typically, Athenian females were married at puberty and often before. Under Athenian law a woman was classified as a child, regardless of age, and therefore was the legal property of some man at all stages in her life. Males could divorce by simply ordering a wife out of the household. Moreover, if a woman was seduced or raped, her husband was legally compelled to divorce her. If a woman wanted a divorce, she had to have her father or some other man bring her case before a judge. Finally, Athenian women could own property, but control of the property was always vested in the male to whom she "belonged" (Guttentag and Secord 1983; Finley 1982; Pomeroy 1975).

Spartans also practiced infanticide, but without gender bias—only healthy, well-formed babies were allowed to live. Since males are more subject to birth defects and are more apt to be sickly infants, the result was a slight excess of females from infancy, a trend that accelerated with age because of male mortality from military life and warfare. Keep in mind that mortality rates in military encampments far surpassed civilian rates until

well into the twentieth century. At age seven all Spartan boys left home for military boarding schools, and all were required to serve in the army until age thirty; they then passed into the active reserve, where they remained until age sixty. A subjugated peasantry known as helots supplied all of the males in the domestic labor force. Although men could marry at age twenty, they could not live with their wives until they left the active army at age thirty.

Spartan women enjoyed status and power unknown in the rest of the classical world. They not only controlled their own property, they controlled that of their male relatives when the latter were away with the army. It is estimated that women were the sole owners of at least 40 percent of all land and property in Sparta (Pomeroy 1975). The laws concerning divorce were the same for men and women. Women received as much education as men, and Spartan women received a substantial amount of physical education and gymnastic training. Spartan women seldom married before age twenty, and, unlike their Athenian sisters who wore heavy, concealing gowns and were seldom seen by males outside their household, Spartan women wore short dresses and went where they pleased (Guttentag and Secord 1983; Finley 1982; Pomeroy 1975).

Relative Status of Christian Women

If Guttentag and Secord's theory is correct, then we would have to predict that the status of Christian women in the Greco-Roman world would more closely approximate that of Spartan women than that of women in Athens.

Although I began this chapter with the assertion that Christian women did indeed enjoy considerably greater status and power than did pagan women, this needs to be demonstrated at greater length. The discussion will focus on two primary aspects of female status: within the family and within the religious community.

Wives, Widows, and Brides

First of all, a major aspect of women's improved status in the Christian subculture is that Christians did not condone female infanticide. Granted, this was the result of the prohibition of *all* infanticide. But the more favorable Christian view of women is also demonstrated in their condemnation of divorce, incest, marital infidelity, and polygamy. As Fox put it, "fidelity, without divorce, was expected of every Christian" (1987:354). Moreover, although rules prohibiting divorce and remarriage evolved slowly, the earliest church councils ruled that "twice-married Christians" could not hold church office (Fox 1987). Like pagans, early Christians prized female chastity, but unlike pagans they rejected the double standard that gave pagan men so much sexual license (Sandison 1967). Christian men were urged to remain virgins until marriage (Fox 1987), and extramarital sex was condemned as adultery. Chadwick noted that Christianity "regarded unchastity in a husband as no less serious a breach of loyalty and trust than unfaithfulness in a wife" (1967:59). Even the great Greek physician Galen was prompted to remark on Christian "restraint in cohabitation" (quoted in Benko 1984:142).

Should they be widowed, Christian women also enjoyed very substantial advantages. Pagan widows faced great social pressure to remarry; Augustus even had widows fined if they failed to remarry within two years (Fox 1987). Of course, when a pagan widow did remarry, she lost all of her inheritance—it became the property of her new husband. In contrast, among Christians, widowhood was highly respected and remarriage was, if anything, mildly discouraged. Thus not only were well-to-do Christian widows enabled to keep their husband's estate, the church stood ready to sustain poor widows, allowing them a choice as to whether or not to remarry. Eusebius provides a letter from Cornelius, bishop of Rome, written in 251 to Bishop Fabius of Antioch, in which he reported that "more than fifteen hundred widows and distressed persons" were in the care of the

local congregation, which may have included about 30,000 members at this time (*The History of the Church*, 1965 ed., and see editor's note to p. 282).

In all these ways the Christian woman enjoyed far greater marital security and equality than did her pagan neighbor. But there was another major marital aspect to the benefits women gained from being Christians. They were married at a substantially older age and had more choice about whom they married. Since, as we shall see, pagan women frequently were forced into prepubertal, consummated marriages, this was no small matter.

In a now-classic article, the historical demographer Keith Hopkins (1965a) surveyed a century of research on the age of marriage of Roman women—girls, actually, most of them. The evidence is both literary and quantitative. In addition to the standard classical histories, the literary evidence consists of writings by lawyers and physicians. The quantitative data are based on inscriptions, most of them funerary, from which the age at marriage can be calculated (cf. Harkness 1896).

As to the histories, silence offers strong testimony that Roman girls married young, very often before puberty. It is possible to calculate that many famous Roman women married at a tender age: Octavia and Agrippina married at 11 and 12, Quintilian's wife bore him a son when she was 13, Tacitus wed a girl of 13, and so on. But in reviewing the writing about all of these aristocratic Romans, Hopkins (1965a) found only one case in which the ancient writer mentioned the bride's age—and this biographer was himself a Christian ascetic! Clearly, having been a child bride was not thought by ancient biographers to be worth mentioning. Beyond silence, however, the Greek historian Plutarch reported that Romans "gave their girls in marriage when they were twelve years old, or even younger" (quoted in Hopkins 1965a:314). Dio Cassius, also a Greek writing Roman history, agreed: "Girls are considered . . . to have reached marriageable age on completion of their twelfth year" (*The Roman History*, 1987 ed.).

Roman law set 12 as the minimum age at which girls could

marry. But the law carried no penalties, and legal commentaries from the time include such advice as: "A girl who has married before 12 will be a legitimate wife, when she becomes 12." Another held that when girls under age 12 married, for legal purposes they should be considered engaged until they reached 12. Hopkins concluded: "We have no means of knowing whether lawyers represented advanced, typical or conservative opinions in these matters. What we do know is that in the fragments of their opinions that survive there is no sneer or censure against marriages before 12, and there are no teeth in the laws [against it]" (1965a:314).

The quantitative data are based on several studies of Roman inscriptions, combined by Hopkins (1965a), from which age at marriage could be calculated. Hopkins was also able to separate these Roman women on the basis of religion. The results are presented in table 5.1. Pagans were three times as likely as Christians to have married before age 13 (10 percent were wed by age 11). Nearly half (44 percent) of the pagans had married by age 14, compared with 20 percent of the Christians. In contrast, nearly half (48 percent) of the Christian females had not wed before age 18, compared with a third (37 percent) of the pagans.

These differences are highly significant statistically. But they seem of even greater social significance when we discover that not only were a substantial proportion of pagan Roman girls married before the onset of puberty, to a man far older than themselves, but these marriages typically were consummated at once.

When the French historian Durry (1955) first reported his findings that Roman marriages involving child brides normally were consummated even if the bride had not yet achieved puberty, he acknowledged that this ran counter to deeply held ideas about the classical world. But there is ample literary evidence that consummation of these marriages was taken for granted. Hopkins (1965a) noted that one Roman law did deal

TABLE 5.1
Religion and Age at Marriage of Roman Females

	Pagans	*Christians*
Under 13	20%	7%
13–14	24%	13%
15–17	19%	32%
18 or over	37%	48%
n =	145	180

Significance < .0001

Note: Calculated from Hopkins 1965a.

with the marriage of girls under age 12 and intercourse, but it was concerned only with the question of her adultery. Several Roman physicians suggested that it might be wise to defer intercourse until menarche, but did not stress the matter (Hopkins 1965a).

Unfortunately, the literary sources offer little information about how prepubertal girls felt about these practices. Plutarch regarded it as a cruel custom and reported "the hatred and fear of girls forced contrary to nature." I suggest that, even in the absence of better evidence and even allowing for substantial cultural differences, it seems likely that many Roman girls responded as Plutarch claimed. Thus here too Christian girls enjoyed a substantial advantage.

Gender and Religious Roles

It is well known that the early church attracted an unusual number of high-status women (Fox 1987; Grant 1977; 1970; Harnack 1908, vol. 2). But the matter of interest here concerns the roles occupied by women *within* early Christian congregations. Let me emphasize that by "early Christianity" I mean the period covering approximately the first five centuries. After that, as

Christianity became the dominant faith of the empire and as sex ratios responded to the decline in the differential conversion of women, the roles open to women became far more limited.

As to the status of women in the early church, there has been far too much reliance on 1 Cor. 14:34–36, where Paul *appears* to prohibit women even from speaking in church. Laurence Iannaccone (1982) has made a compelling case that these verses were the opposite of Paul's position and were in fact a quotation of claims being made at Corinth that Paul then refuted. Certainly the statement is at variance with everything else Paul wrote about the proper role for women in the church. Moreover, Paul several times acknowledged women in leadership positions in various congregations.

In Rom. 16:1–2 Paul introduces and commends to the Roman congregation "our sister Phoebe" who is a "deaconess of the church at Cenchrea" who had been of great help to him. Deacons were of considerable importance in the early church. They assisted at liturgical functions and administered the benevolent and charitable activities of the church. Clearly, Paul regarded it as entirely proper for a woman to hold that position. Nor was this an isolated case. Clement of Alexandria wrote of "women deacons," and in 451 the Council of Chalcedon specified that henceforth a deaconess must be at least forty and unmarried (Ferguson 1990). From the pagan side, in his famous letter to the emperor Trajan, Pliny the Younger reported that he had tortured two young Christian women "who were called deaconesses" (1943 ed.).

Not only did Paul commend Phoebe the deaconess to the Romans, he also sent his greetings to prominent women in the Roman congregation, including Prisca, whom he acknowledges for having "risked her neck" on his behalf. He asks that the recipients of his letter "greet Mary, who has worked so hard among you," and sends his greetings to several other women (Rom. 16:1–15). Moreover, in 1 Tim. 3:11 Paul again mentions

women in the role of deacons, noting that to qualify for such an appointment women must be "serious, no slanderers, but temperate and faithful in all things."

That women often served as deacons in the early church was long obscured because the translators of the King James Version chose to refer to Phoebe as merely a "servant" of the church, not as a deacon, and to transform Paul's words in 1 Timothy into a comment directed toward the *wives* of deacons.[2] But this reflects the sexist norms of the seventeenth century, not the realities of early Christian communities. Indeed, early in the third century the great Christian intellectual Origen wrote the following comment on Paul's letter to the Romans:

> This text teaches with the authority of the Apostle that . . . there are, as we have already said, women deacons in the Church, and that women, who have given assistance to so many people and who by their good works deserve to be praised by the Apostle, ought to be accepted in the diaconate. (Quoted in Gryson 1976:134)

All important modern translations of the Bible now restore the original language used by Paul in these two letters, but somehow the illusions fostered by the King James falsifications remain the common wisdom. Nevertheless, there is virtual consensus among historians of the early church as well as biblical scholars that women held positions of honor and authority within early Christianity (Frend 1984; Gryson 1976; Cadoux 1925). Peter Brown noted that Christians differed not only from pagans in this respect, but from Jews: "The Christian clergy . . . took a step that separated them from the rabbis of Palestine . . . [T]hey welcomed women as patrons and even offered women roles in which they could act as collaborators" (1988:144–145). And none of his colleagues would have regarded the following claim by the distinguished Wayne Meeks as controversial: "Women . . . are Paul's fellow workers as evangelists and teachers. Both in terms of their position in the larger

society and in terms of their participation in the Christian communities, then, a number of women broke through the normal expectations of female roles" (1983:71).

Close examination of Roman persecutions also suggests that women held positions of power and status within the Christian churches. The actual number of Christians martyred by the Romans was quite small, and the majority of men who were executed were officials, including bishops (see chapter 8). That a very significant proportion of martyrs were women led Bonnie Bowman Thurston (1989) to suggest that they must also have been regarded by the Romans as holding some sort of official standing. This is consistent with the fact that the women tortured and then probably executed by Pliny were deaconesses.

Thus, just as the Guttentag and Secord theory predicts, the very favorable sex ratio enjoyed by Christian women was soon translated into substantially more status and power, both within the family and within the religious subculture, than was enjoyed by pagan women. Let me note that women in Rome and in Roman cities enjoyed greater freedom and power than women in the empire's Greek cities (MacMullen 1984). However, it was in the Greek cities of Asia Minor and North Africa that Christianity made its greatest early headway, and it is these communities that are the focus of this analysis. Granted, even in this part of the empire, pagan women sometimes held important positions within various mystery cults and shrines. However, these religious groups and centers were themselves relatively peripheral to power within pagan society, for authority was vested primarily in secular roles. In contrast, the church was the primary social structure of the Christian subculture. Daily life revolved around the church, and power resided in church offices. To the extent that women held significant roles within the church, they enjoyed greater power and status than did pagan women. Indeed, participation in Mithraism, which has often been regarded as early Christianity's major competitor, was limited to males (Ferguson 1990).

Now I would like to pursue an additional and equally remarkable consequence of the very different sex ratios prevailing among pagans and Christians. In the pagan world that surrounded the early Christians, an excess number of men caused wives to be in short supply. But within the Christian subculture it was husbands who were in short supply. Herein lay an excellent opportunity for gaining secondary converts.

Exogamous Marriage and Secondary Conversion

Both Peter and Paul sanctioned marriage between Christians and pagans. Peter advised women with unconverted husbands to be submissive so that the men might be won to faith "when they see your reverent and chaste behavior" (1 Pet. 3:1–2). Paul gives similar advice, noting that "an unbelieving husband is consecrated through his wife" (1 Cor. 7:13–14). Both passages are commonly interpreted as directed toward persons whose conversion postdated their marriage. In such circumstances, as Wayne Meeks explained, the Christian "divorce rule takes precedence over the preference for group endogamy" (1983:101). But I suggest that these passages may reflect a far greater tolerance for exogamous marriage than has been recognized. My reasons are several.

We know that there was a very substantial oversupply of marriageable Christian women and that this was acknowledged to be a problem. Fox reported the concern among church leaders "to match an excess of Christian women to a deficiency of Christian men" (1987:309). Indeed, in about the year 200 Callistus, bishop of Rome, upset many of his fellow clerics when he ruled that Christian women could live in "just concubinage" without entering into marriage (Brown 1988; Fox 1987; Latourette 1937). Although Hippolytus and other contemporaries denounced the pope's action as giving license to adultery, Harnack defended Callistus on the basis of the circumstances he faced: "These circumstances arose from the fact of Christian

girls in the church outnumbering youths, the indulgence of Callistus itself proving unmistakably the female element in the church, so far as the better classes were concerned, was in the majority" (1908: 2:83–84). In particular, Callistus was trying to deal with the problem facing upper-class women whose only marital options *within* the Christian community were to men of far inferior rank. Should they have entered into legal marriages with such men, highborn women would have lost many legal privileges and control of their wealth. If highborn Christian women found it so difficult to find grooms that the bishop of Rome permitted "just concubinage," how was he to condemn middle- and lower-class Christian women who wed pagans, especially if they did so within the church guidelines concerning the religious training of the children? The case of Pomponia Graecina, the aristocratic early convert mentioned in chapter 2, is pertinent here. It is uncertain whether her husband Plautius ever became a Christian, although he carefully shielded her from gossip, but there seems to be no doubt that her children were raised as Christians. According to Marta Sordi, "in the second century [her family] were practicing Christians (a member of the family is buried in the catacomb of St. Callistus)" (1986:27). As we see later in the chapter, superior fertility played a significant role in the rise of Christianity. But had the oversupply of Christian women resulted in an oversupply of unwed, childless women, their potential fertility would have been denied to Christian growth. Summing up his long study of the sources, Harnack noted that many mixed marriages were reported and that in virtually all cases "the husband was a pagan, while the wife was a Christian" (1908: 2:79).

Finally, the frequency with which early church fathers condemned marriage to pagans *could* demonstrate that Christians "refused their sons and daughters in marriage to nonmembers" (MacMullen 1984:103). But it could also reflect the reverse, since people tend not to keep harping on matters that are not significant. Tertullian offers an interesting example. Writing in about the year 200 he violently condemned Christian women

who married pagans, describing the latter as "slaves of the Devil" (quoted in Fox 1987:308). He also wrote two angry treatises condemning Christian women's use of makeup, hair dye, fancy clothes, and jewelry (1959 ed.). I certainly would not conclude from the latter that most Christian women in Tertullian's time dressed plainly and rejected cosmetics. Were that the case, Tertullian would have been an irrelevant fool—which he so obviously was not. I incline to a similar interpretation of his attack on Christian women for marrying pagans—Tertullian's anger reflects the frequency of such marriages. In fact, Tertullian felt it necessary to acknowledge that one of his colleagues claimed that "while marriage to a pagan was certainly an offence, it was an extremely trivial offence" (quoted in Harnack 1908: 2:82). Michael Walsh seems to agree that intermarriage was common. Commenting upon a proposal by Ignatius of Antioch that Christians should marry only with the permission of their local bishop, Walsh wrote:

> Ignatius' proposal may have been an attempt to encourage marriage between Christians, for inevitably marriages between Christians and pagans were common, especially in the early years. The Church did not at first discourage this practice, which had its advantages: it might bring others into the fold. (1986:216)

This view is further supported by the lack of concern in early Christian sources about losing members via marriage to pagans. Peter and Paul hoped that Christians would bring their spouses into the church, but neither seemed to have the slightest worry that Christians would revert to, or convert to, paganism. Moreover, pagan sources agree. The composure of the Christian martyrs amazed and unsettled many pagans. Pliny noted the "stubbornness and unbending obstinacy" ("Letter," 1943 ed.) of the Christians brought before him—under threat of death they would not recant. The emperor Marcus Aurelius also remarked on the obstinacy of Christian martyrs (*The Communings*, 1916 ed.). And Galen wrote of Christians that "their contempt of death (and of its sequel) is patent to us every

day" (quoted in Benko 1984:141). Galen's reference was to the willingness of Christians to nurse the sick during the great plague that struck the empire at this time, killing millions, including Marcus Aurelius (see chapter 4). The high levels of commitment that the early church generated among its members should have made it safe for them to enter exogamous marriages.

That Christians seldom lost out via exogamous marriages is also in keeping with modern observations of high-tension religious movements. Female Jehovah's Witnesses frequently marry outside the group (Heaton 1990). Seldom does this result in their defection, and it often results in the conversion of the spouse. Indeed, this phenomenon is so general that Andrew Greeley (1970) has proposed the rule that whenever a mixed marriage occurs, the less religious person will usually join the religion of the more religious member.

But how much intermarriage was there and how much did it matter in terms of producing secondary converts? What we do know is that secondary conversion was quite frequent among the Roman upper classes (Fox 1987; Chadwick 1967). This was partly because many married upper-class women became Christians and then managed to convert their spouses—this was especially common by the fourth century. But it also occurred because many upper-class Christian women did marry pagans, some of whom they subsequently were able to convert (Harnack 1908, vol. 2). Indeed, Peter Brown wrote of Christian women as a "gateway" into pagan families where "they were the wives, servants, and nurses of unbelievers" (1988:154).

In truth, there is no abundance of direct evidence that intermarriages between Christian women and pagan men were widespread. But, in my judgment, a compelling case can be made by resort to reason. It is reasonable to assume that—given the great surplus of marriageable Christian women, existing in the midst of a world in which women were in short supply, and given that Christians seem not to have feared that intermar-

riage would result in their daughters' abandoning their faith—such marriages ought to have been common. And from what we know about conversion mechanisms, these intermarriages ought to have resulted in a lot of secondary conversions.

As discussed in detail in chapter 1, conversion is a network phenomenon based on interpersonal attachments. People join movements to align their religious status with that of their friends and relatives who already belong. Hence, in order to offer plausible accounts of Christianity's rise, we need to discover mechanisms by which Christians formed attachments with pagans. Put another way, we need to discover how Christians managed to remain an *open network*, able to keep building bonds with outsiders, rather than becoming a closed community of believers. A high rate of exogamous marriage is one such mechanism. And I think it was crucial to the rise of Christianity.

Indeed, exogamous marriage had another major consequence. It prevented the surplus of Christian women from resulting in an abundance of childless, single women. To the contrary, it seems likely that Christian fertility substantially exceeded that of pagans and that this too helped Christianize the Greco-Roman world.

The Fertility Factor

In 59 B.C.E. Julius Caesar secured legislation that awarded land to fathers of three or more children, though he failed to act on Cicero's suggestion that celibacy be outlawed. Thirty years later, and again in the year 9, the emperor Augustus promulgated laws giving political preference to men who fathered three or more children and imposing political and financial sanctions upon childless couples, upon unmarried women over the age of twenty, and upon unmarried men over the age of twenty-five. These policies were continued by most emperors who followed Augustus, and many additional programs were in-

stituted to promote fertility. Trajan, for example, provided substantial child subsidies (Rawson 1986).

But nothing worked. As Tacitus tells us, "childlessness prevailed" (*Annals* 3.25, 1989 ed.). As the distinguished Arthur E. R. Boak remarked, "[policies with] the aim of encouraging families to rear at least three children were pathetically impotent" (1955a:18). As a result, the population of the Roman Empire began to decline noticeably during the last years of the Republic, and serious population shortages had developed by the second century, *before* the onset of the first great plague (Boak 1955a).

Thus although plagues played a substantial role in the decline of the Roman population, of far greater importance was the low fertility rate of the free population in the Greco-Roman world (both rural and urban) and the extremely low fertility of the large slave population (Boak 1955a). By the start of the Christian era, Greco-Roman fertility had fallen below replacement levels, leading to centuries of natural *decrease* (Parkin 1992; Devine 1985; Boak 1955a). As a result, the devastating effects of the major plagues were never remedied, for even in good times the population was not replacing itself. By the third century, there is solid evidence of a decline in both the number and the size of Roman towns in the West, even in Britain (Collingwood and Myres 1937).

That the empire could continue as long as it did depended on a constant influx of "barbarian" settlers. As early as the second century, Marcus Aurelius had to draft slaves and gladiators and hire Germans and Scythians in order to fill the ranks of the army (Boak 1955a). After defeating the Marcomanni, Aurelius settled large numbers of them within the empire in return for their accepting obligations to supply soldiers. Boak commented that Aurelius "had no trouble finding vacant land on which to place them" (1955a:18).

Meanwhile, in keeping with the biblical injunction to "be fruitful and multiply," Christians maintained a substantial rate of natural *increase*. Their fertility rates were considerably higher

than those of pagans, and their mortality rates were considerably lower.

To conclude this chapter I shall first establish the basis for the very low fertility rates of the Greco-Roman world. Next, I will examine factors that sustained high fertility among Jews and subsequently among Christians. Although it is impossible to know actual fertility rates in this period, these cultural contrasts are sufficient to strongly suggest that superior Christian fertility played a significant role in the rise of Christianity.

Sources of Low Fertility

A primary cause of low fertility in the Greco-Roman world was a male culture that held marriage in low esteem. In 131 B.C.E. the Roman censor Quintus Caecilius Metellus Macedonicus proposed that the senate make marriage compulsory because so many men, especially in the upper classes, preferred to stay single. Acknowledging that "we cannot have a really harmonious life with our wives," the censor pointed out that since "we cannot have any sort of life without them," the long term welfare of the state must be served. More than a century later Augustus quoted this passage to the senate to justify his own legislation on behalf of marriage, and it was not greeted with any greater enthusiasm the second time around (Rawson 1986:11). For the fact was that men in the Greco-Roman world found it difficult to relate to women. As Beryl Rawson has reported, "one theme that recurs in Latin literature is that wives are difficult and therefore men do not care much for marriage" (1986:11).

Although virginity was demanded of brides, and chastity of wives, men tended to be quite promiscuous and female prostitutes abounded in Greco-Roman cities—from the twopenny *diobolariae* who worked the streets to high-priced, well-bred courtesans (Pomeroy 1975). Greco-Roman cities also sustained substantial numbers of male prostitutes, as bisexuality and homosexuality were common (Sandison 1967).

Infanticide

However, even when Greco-Roman men did marry, they usually produced very small families—not even legal sanctions and inducements could achieve the goal of an average of three children per family. One reason for this was infanticide—far more babies were born than were allowed to live. Seneca regarded the drowning of children at birth as both reasonable and commonplace. Tacitus charged that the Jewish teaching that it is "a deadly sin to kill an unwanted child" was but another of their "sinister and revolting" practices (*The Histories* 5.5, 1984 ed.). It was common to expose an unwanted infant out-of-doors where it could, in principle, be taken up by someone who wished to rear it, but where it typically fell victim to the elements or to animals and birds. Not only was the exposure of infants a very common practice, it was justified by law and advocated by philosophers.

Both Plato and Aristotle recommended infanticide as legitimate state policy.[3] The Twelve Tables—the earliest known Roman legal code, written about 450 B.C.E.—permitted a father to expose any female infant and any deformed or weak male infant (Gorman 1982:25). During recent excavations of a villa in the port city of Ashkelon, Lawrence E. Stager and his colleagues made

> a gruesome discovery in the sewer that ran under the bathhouse. . . . The sewer had been clogged with refuse sometime in the sixth century A.D. When we excavated and dry-sieved the desiccated sewage, we found [the] bones . . . of nearly 100 little babies apparently murdered and thrown into the sewer. (1991:47)

Examination of the bones revealed them to be newborns, probably day-olds (Smith and Kahila 1991). As yet, physical anthropologists have not been able to determine the gender of these infants who apparently had just been dropped down the drain shortly after birth. But the assumption is that they were all, or nearly all, girls (Stager 1991). Girls or boys, these bones reveal a major cause of population decline.

Abortion

In addition to infanticide, fertility was greatly reduced in the Greco-Roman world by the very frequent recourse to abortion. The literature details an amazingly large number of abortion techniques—the more effective of which were exceedingly dangerous. Thus abortion not only prevented many births, it killed many women before they could make their contribution to fertility, and it resulted in a substantial incidence of infertility in women who survived abortions. A consideration of the primary methods used will enable us to more fully grasp the impact of abortion on Greco-Roman fertility and mortality.

A frequent approach involved ingesting slightly less than fatal doses of poison in an effort to cause a miscarriage. But, of course, poisons are somewhat unpredictable and tolerance levels vary greatly; hence in many cases both the mother and the fetus were killed. Another method introduced poisons of various sorts into the uterus to kill the fetus. Unfortunately, in many cases the woman failed to expel the dead fetus and died unless she was treated almost immediately by mechanical methods of removal. But these methods, which were often used as the initial mode of abortion as well, were also extremely dangerous, requiring great surgical skill as well as good luck in an age that was ignorant of bacteria.

The commonly used mechanical methods all involved long needles, hooks, and knives. Tertullian, writing in about 203, described an abortion kit used by Hippocrates:

> a flexible frame for opening the uterus first of all, and keeping it open; it is further furnished with an annular blade, by means of which the limbs within the womb are dissected with anxious but unfaltering care; its last appendage being a blunted or covered hook, wherewith the entire fetus is extracted by a violent delivery. There is also a copper needle or spike by which the actual death is managed. (*A Treatise on the Soul* 25, 1989 ed.)

The famous Roman medical writer Aulas Cornelius Celsus offered extensive instructions on using similar equipment in his

De medicina, written in the first century. Celsus warned surgeons that an abortion "requires extreme caution and neatness, and entails very great risk." He advised that "after the death of the foetus" the surgeon should slowly force his "greased hand" up the vagina and into the uterus (keep in mind that soap had yet to be invented). If the fetus was in a headfirst position, the surgeon should then insert a smooth hook and fix it "into an eye or ear or the mouth, even at times into the forehead, then this is pulled upon and extracts the foetus." If the fetus was positioned crosswise or backwards, then Celsus advised that a blade be used to cut up the fetus so it could be taken out in pieces. Afterwards, Celsus instructed surgeons to tie the woman's thighs together and to cover her pubic area with "greasy wool, dipped in vinegar and rose oil" (*De medicina* 7.29, 1935–1938 ed.).

Given the methods involved, it is not surprising that abortion was a major cause of death among women in the Greco-Roman world (Gorman 1982). Since abortion was so dangerous to women in this era, it might be asked why it was so widely practiced. The sources mention a variety of reasons, but concealment of illicit sexual activity receives the greatest emphasis—unmarried women and women who became pregnant while their husbands were absent often sought abortions (Gorman 1982). Economic reasons are also cited frequently. Poor women sought abortions to avoid a child they could ill afford, and rich women sought them in order to avoid splitting up the family estate among many heirs.

However, the very high rates of abortion in the Greco-Roman world can only be fully understood if we recognize that in perhaps the majority of instances it was men, rather than women, who made the decision to abort. Roman law accorded the male head of family the literal power of life and death over his household, including the right to order a female in the household to abort. The Roman Twelve Tables mentioned earlier did suggest censure for husbands who ordered their wives to abort without good reason, but no fines or penalties were specified. More-

over, the weight of Greek philosophy fully supported these Roman views. In his *Republic* Plato made abortions mandatory for all women who conceived after age forty, on the grounds of limiting the population (5.9, 1941 ed.), and Aristotle followed suit in his *Politics*: "There must be a limit fixed to the procreation of offspring, and if any people have a child as a result of intercourse in contravention of these regulations, abortion must be practiced" (7.14.10, 1986 ed.). It is hardly surprising that a world which gave husbands the right to order the exposure of their infant daughters would give them the right to order their wives and mistresses to abort. Thus the emperor Domitian, having impregnated his niece Julia, ordered her to have an abortion—from which she died (Gorman 1982).

Birth Control

The Romans had an adequate understanding of the biology of reproduction and developed a substantial inventory of preventive measures. Medical historians now are convinced that various plants such as Queen Anne's lace, chewed by women in antiquity, were somewhat effective in reducing fertility (Riddle, Estes, and Russell 1994). In addition, a number of contraceptive devices and medicines were inserted into the vagina to kill sperm or block the path of semen to the uterus. Various ointments, honey, and pads of soft wool were used for the latter purpose (Noonan 1965; Clark 1993). Unborn lamb stomachs and goat bladders served as condoms; these, however, were too expensive for anyone but the very rich (Pomeroy 1975). Even more popular (and effective) were sexual variations that keep sperm out of the vagina. One frequently used method was withdrawal. Another substituted mutual masturbation for intercourse. Surviving Roman and Greek art frequently depicts anal intercourse, and a number of classical writers mention women "playing the boy," a reference to anal sex (Sandison 1967:744). Pomeroy attributes the preference of Greco-Roman males for women with large buttocks "to the practice of anal intercourse"

(1975:49). Having reported a wealth of literary references, Lindsay claims that heterosexual anal intercourse was "very common" and "was used as the simplest, most convenient, and most effective form of contraception" (1968:250–251). Oral sex seems to have been much less common than anal sex (understandably so, given the lack of cleanliness), but it is depicted in a number of erotic Greek paintings, especially on vases (Sandison 1967). Finally, given their attitudes about marriage and their distant relationships with their wives, many Greco-Roman men seem to have depended on the most reliable of all means of birth control, avoiding sex with their wives.

Too Few Women

In the final analysis, a population's capacity to reproduce is a function of the proportion of that population consisting of women in their childbearing years, and the Greco-Roman world had an acute shortage of women. Moreover, many pagan women still in their childbearing years had been rendered infertile by damage to their reproductive systems from abortions or from contraceptive devices and medicines. In this manner was the decline of the Roman Empire's population ensured.

Christian Fertility

The differential fertility of Christians and pagans is not something I have deduced from the known natural decrease of the Greco-Roman population and from Christian rejection of the attitudes and practices that caused pagans to have low fertility. This differential fertility was taken as fact by the ancients. Thus, at the end of the second century, Minucius Felix wrote a debate between a pagan and a Christian in which Octavius, the Christian spokesman, noted "that day by day the number of us is increased," which he attributed to "[our] fair mode of life" (*Octavius* 31, 1989 ed.). It could hardly have been otherwise, be-

cause Christians pursued a lifestyle that could only result in comparatively higher fertility—a point fully appreciated by Tertullian, who noted: "To the servant of God, forsooth, offspring is necessary! For our own salvation we are secure enough, so that we have leisure for children! Burdens must be sought by us for ourselves which are avoided by the majority of the Gentiles, who are compelled by laws [to have children], who are decimated by abortions" (*To His Wife* 1.5, 1989 ed.).

If a major factor in lower fertility among pagans was a male-oriented culture that held marriage in low esteem, a major factor in higher fertility of Christians was a culture that sanctified the marital bond. As noted, Christians condemned promiscuity in men as well as in women and stressed the obligations of husbands toward wives as well as those of wives toward husbands. Writing to the church in Corinth, after having allowed that celibacy was probably to be preferred, Paul quickly went on to define proper marital relations among Christians:

> But because of the temptation to immorality, each man should have his own wife and each woman her own husband. The husband should give to his wife her conjugal rights, and likewise the wife to her husband. For the wife does not rule over her own body, but the husband does; likewise the husband does not rule over his own body, but the wife does. Do not refuse one another except perhaps by agreement for a season, that you may devote yourselves to prayer; but then come together again, lest Satan tempt you through lack of self-control. I say this by way of concession, not of command. I wish that all were as I myself am. But each has his own special gift from God, one of one kind and one of another. (1 Cor. 7:2–7)

The symmetry of the relationship Paul described was at total variance, not only with pagan culture, but with Jewish culture as well—just as allowing women to hold positions of religious importance was at variance with Jewish practice. And if Paul expressed a more conventionally patriarchal view of the marriage relationship in Eph. 5:22—"Wives, be subject to your husbands

as to the Lord. For the husband is the head of the wife as Christ is head of the church"—he devoted the next ten verses to admonishing men to love their wives.

Apart from the question of female roles, in most other respects the views of family and fertility sustained by Christians revealed the Jewish origins of the movement. These views can best be described as very family-oriented and pro-natal. Indeed, as time passed, Christians began to stress that the primary purpose of sex was procreation and therefore that it was a marital duty to have children. In addition to these pronounced differences in attitudes, there were dramatic behavioral differences that distinguished Christians from pagans in their treatment of pregnant women and infants.

Abortion and Infanticide

From the start, Christian doctrine absolutely prohibited abortion and infanticide, classifying both as murder. These Christian prohibitions reflected the Jewish origins of the movement. Among Jews, according to Josephus: "The law, moreover, enjoins us to bring up our offspring, and forbids women to cause abortion of what is begotten, or to destroy it afterward; and if any woman appears to have done so, she will be a murderer of her child" (1960 ed.). In similar fashion, the Alexandrian Jewish writing known as the *Sentences of Pseudo-Phocylides* advised: "A woman should not destroy the unborn babe in her belly, nor after its birth throw it before dogs and vultures as prey" (quoted in Gorman 1982:37).

These views are repeated in the earliest Christian writing on the subject. Thus, in the second chapter of the *Didache*, a manual of church teachings probably written in the first century (Robinson 1976), we find the injunction "Thou shalt not murder a child by abortion nor kill them when born." Justin Martyr, in his *First Apology*, written toward the middle of the second century, noted, "We have been taught that it is wicked to

expose even newly-born children . . . [for] we would then be murderers" (27–29, 1948 ed.). In the second century, Athenagoras wrote in chapter 35 of his *Plea* to the emperor Marcus Aurelius,

> We say that women who use drugs to bring on an abortion commit murder, and will have to give an account to God for the abortion . . . [for we] regard the very foetus in the womb as a created being, and therefore an object of God's care . . . and [we do not] expose an infant, because those who expose them are chargeable with child-murder. (1989 ed.)

By the end of the second century, Christians not only were proclaiming their rejection of abortion and infanticide, but had begun direct attacks on pagans, and especially pagan religions, for sustaining such "crimes." In his *Octavius*, Minucius Felix charged:

> And I see that you at one time expose your begotten children to wild beasts and to birds; at another, that you crush when strangled with a miserable kind of death. There are some women [among you] who, by drinking medical preparations, extinguish the source of the future man in their very bowels, and thus commit a parricide before they bring forth. And these things assuredly come down from your gods. For Saturn did not expose his children, but devoured them. With reason were infants sacrificed to him in some parts of Africa. (33, 1989 ed.)

Birth Control

Initially, Christian teaching about the use of contraceptive devices and substances may have been somewhat ambiguous (Noonan 1965). However, since it is not clear the extent to which the contraceptive methods used by the ancients actually worked (and many, such as amulets worn around the ankle, clearly did not), it may not have mattered whether they were

permitted or condemned. Of far greater importance to Christian fertility were religious objections to the most effective means of birth control—objections mostly taken over from Judaism. That is, Jews and Christians were opposed to sexual practices that diverted sperm from the vagina. As the biblical story of Onan makes clear, withdrawal and mutual masturbation were sins in that the seed was spilled upon the ground. Thus Clement of Alexandria wrote, "Because of its divine institution for the propagation of man, the seed is not to be vainly ejaculated, nor is it to be damaged, nor is it to be wasted" (quoted in Noonan 1965:93). Both Jews and Christians condemned anal intercourse. In Rom. 1:26 Paul wrote: "For this cause God gave them up unto vile affections: for even their women did change the natural use into that which is against nature." As for oral sex, Barnabas wrote: "Thou shalt not . . . become such as those men of whom we hear as working iniquity with their mouth for uncleanness, neither shalt thou cleave unto impure women who work iniquity with their mouths" (*The Epistle* 10, 1988 ed.). In all these ways did Christians reject the cultural patterns that were causing the Greco-Roman pagan population to decline.

An Abundance of Fertile Women

A final factor in favor of high Christian fertility was an abundance of women who were far less likely to be infertile. Since only women can have babies, the sex composition of a population is (other things being equal) a crucial factor in its level of fertility. That the Christian community may well have been 60 percent female offered the Christian subculture a tremendous potential level of fertility. Of course, given the moral restrictions of the group, Christian women also needed to be married in order to have children. But, as I tried to establish earlier, there is no reason to suppose that they did not have high marriage rates, given the abundance of eligible males in the surrounding populace. Moreover, there is every reason to suppose that the overwhelming majority of children from these "mixed marriages" were raised within the church.

Christian Fertility

A number of sophisticated scholars have tried to estimate the fertility rate of the Roman Empire (Parkin 1992; Durand 1960; Russell 1958), but the fact remains that we will never have firm knowledge. What can be established is that mortality was high; thus a high fertility rate was necessary to prevent a population decline. It also seems very likely that fertility was substantially lower than needed for replacement, and, as noted above, there is substantial evidence that the Greco-Roman population did become smaller during the Christian era. Beyond these generalities, it is doubtful that we shall obtain more precise information.

As for the fertility of the Christian population, the literature is empty. It was for this reason that I devoted much attention to establishing that the primary causes of a population decline in the Greco-Roman world did not apply to the Christian subculture. It thus seems entirely proper to assume that Christian population patterns would have resembled the patterns that normally apply in societies having an equivalent level of economic and cultural development. So long as they do not come up against limits imposed by available subsistence, such populations are normally quite expansive. Lack of subsistence was not a factor in this time and place, as the frequent settlement of barbarians to make up population shortages makes clear. We can therefore assume that during the rise of Christianity the Christian population grew not only via conversion, but via fertility. The question is, how much of their growth was due to fertility alone?

Unfortunately, we simply do not have good enough data to attempt a quantitative answer to this question—not even a suffi-

cient basis for hypothetical figures. All that can be claimed is that a nontrivial portion of Christian growth probably was due to superior fertility.

Conclusion

In this chapter I have attempted to establish four things. First, Christian subcultures in the ancient world rapidly developed a very substantial surplus of females, while in the pagan world around them males greatly outnumbered females. This shift was the result of Christian prohibitions against infanticide and abortion and of substantial sex bias in conversion. Second, fully in accord with Guttentag and Secord's theory linking the status of women to sex ratios, Christian women enjoyed substantially higher status within the Christian subcultures than pagan women did in the world at large. This was especially marked vis-à-vis gender relations within the family, but women also filled leadership positions within the church. Third, given a surplus of Christian women and a surplus of pagan men, a substantial amount of exogamous marriage took place, thus providing the early church with a steady flow of secondary converts. Finally, I have argued that the abundance of Christian women resulted in higher birthrates—that superior fertility contributed to the rise of Christianity.

Christianizing the Urban Empire: A Quantitative Approach

In his brilliant study of the early church, Wayne Meeks (1983) uses the title of his book to emphasize that Christianity was first and foremost an *urban* movement. Or, as he put it early in the first chapter, "within a decade of the crucifixion of Jesus, the village culture of Palestine had been left far behind, and the Greco-Roman city became the dominant environment of the Christian movement" (1983:11). In the remainder of the book Meeks offers many insights about the spread of Christianity; his primary emphasis, however, is not on cities, but on urbanites. His aim is to help us recognize *who* embraced the new movement and why.

My concern in this chapter is not so much with who or why as with *where*. What characteristics of cities were conducive to Christianization? To this end I will apply some standard tools used by urban sociologists and conduct a quantitative analysis using a data set consisting of the twenty-two largest cities of the Greco-Roman world circa 100. I will develop and test some hypotheses about why Christianity arose more rapidly in some places than in others. However, rather than present the hypotheses first and then move to the statistical analysis, I shall develop and test each seriatim. The reason for this format is that each variable must be discussed at some length as it enters the analysis, and each variable reflects a hypothesis.

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