

# The Power to be Silent: Testimony, Identity, and the Place of Place

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There has, in the last few years, been an explosion of interest in the issue of privacy. In the face of new technologies such as the computerized database and the Internet, people have begun to worry that in the near future we will live in a 1984ish world where everything is in plain view.

Geographers—or at least geography—has been a key player in this development. Remote surveillance systems and global positioning systems tied together with geographic information systems are increasingly common, and they seem to promise a world in which every action can be located, pinpointed on a map, and correlated with other nearby actions and events. And so, a 1999 report by the National Center for Geographic Information and Analysis<sup>1</sup> echoed Vice President Al Gore's extolling of the future "digital earth,"<sup>2</sup> where an encompassing geographic information system would provide data on every square meter of the planet.

The privacy implications of these new geographical technologies have been little explored. Non-geographers, as elsewhere, have been largely oblivious to geographical issues, and geographers have been almost as silent.<sup>3</sup> There has, though, been one arena within which the geographic has been treated as central to the conceptualization of the nature of privacy, and in which the relationships among places, technological change, and the nature of the private have been recognized. That is in the law.

In fact, the right to privacy in the United States has traditionally been a quintessentially geographical right, simply because it has been the right to be safe and secure in a place, or in one's own home. At the same time, many would argue that the U.S. Supreme Court's *Katz v. U.S.* case signaled a sea change, and that today the right is better seen as protecting people and giving them the ability to control the information that others may have about them.<sup>4</sup> This change, they continue, results from the development of the telephone, the airplane-borne camera, the radio beeper, the forward-looking infrared device (FLIR), and the global positioning system. Each has raised new questions, and jointly they have

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business but mine? A communicable disease? Or what of my having a genetic propensity to contract a particular disease?

The courts have in fact made one suggestion here. In a concurring opinion in *Katz*, Justice John M. Harlan II argued that under the terms of the Fourth Amendment, a search has been carried out when “a twofold requirement [is met], first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as ‘reasonable.’”<sup>8</sup> Hence—and this standard has come to be the one to which the courts at least claim to adhere—the content of the private is to be derived empirically, simply by looking at what “society is prepared to recognize as ‘reasonable.’”

Unfortunately, though, this approach offers little real guidance. In part, this is because it falls into the trap described by David Hume some 200 years ago, of deducing what people ought to do from what they in fact do.<sup>9</sup>

In part, the problem is a more mundane one. The determination of what society is prepared to accept as private appears to require empirical research that would itself need to invoke—and suffer under the limitations of—some conception of the private. People, after all, very likely believe in certain cases that what they take to be private is itself private.

And in part, this is because the court refers to a concept—society—that on the one hand rests on an ill-conceived spatial metaphor and discredited view of society as homogeneous, and on the other hand invokes a “body concept” that has in the past had unfortunate political ramifications.<sup>10</sup>

In the end, something more is needed. I shall argue that the seeds of that something are provided in a provocative analysis by David Luban, of the question of who in Anglo-American law may not be required to testify against a person in a trial.<sup>11</sup> And I shall show that although Luban’s analysis can easily be read as implying that privacy is a matter of information, embedded in this analysis are geographical conceptions of the relation between individual, society, and place.

### Ritualistic Certification

Luban notes that within the Anglo-American tradition certain classes of people—a spouse, minister, physician, or attorney—need not testify against a person in a trial. Why, he asks, are these people singled out? Why not a teacher or banker? His answer is this. Each of these classes consists of people whose relationship to a defendant is expressive of something that in our society is taken to be essential to the very possibility of being human. A spouse is the closest non-blood-related member of a family, a person who has chosen to be in the most intimate possible relationship with another. A minister tends to the spiritual needs of a person. A physi-

effected the collapse of space and the destruction of place.

One way of thinking about privacy, then, would see it as ambiguous. On the one hand, a right to privacy is a right to be secure in a place. And on the other hand, it is a right to control over information about oneself. Privacy, that is, may be about places, or it may be about information. Indeed, it seems fair to say that this is the dominant way of thinking about privacy. Further, it has its own geographical dimension; it has been typical to think of those operating within the European legal tradition as concerned more with information and those in the Anglo-American tradition as concerned more with places.<sup>5</sup>

But to say that within one tradition there is a concern that a person be able to have access to a privileged place and that in the other the concern is that a person be able to be secure in the belief that information about him or her is not inappropriately available is to leave open two questions. First, why does this difference exist? And second, why should privacy be valued in the first place?

The conventional answer to the first question is that the American version of privacy, and especially to the extent that it is embodied in the Fourth Amendment, derives from the unpleasant experiences of the Americans in the colonial period, where the British searched people's homes and seized their papers almost at will. And that the European version derives from more recent experiences, from World War II and the way in which the Germans made use of lists in their carrying out of the Holocaust. I'll not directly explore this issue here, but would merely note that this set of explanations strikes me as deeply inadequate.

The second issue—about why privacy should be valued—has been answered in multiple ways.<sup>6</sup> Some have argued that privacy, whether in the form of security of place or of protection of information, is essential to the development of individual identity. Here the image of the panopticon is often invoked; the naked individual is one who lacks the resources to become separate and different. Others, though, argue that the control over place or information is important just to the extent that it supports the development of social interactions. Here it is argued that it is my ability to display to another my own chosen image of myself that allows social interaction to exist; if an individual's every thought and action were open to view, the result would be chaos.

Both of these analyses strike me as interesting. And both seem to me to make a compelling case that privacy has an important function in Western society.<sup>7</sup> Yet neither is terribly successful at making clear just what the content of the private is or should be. They do not, that is, make it clear why some actions are to be included and some not. Should my bedroom be a sanctuary, inviolate from police and investigators into domestic violence? Should my innermost thoughts be only mine—and not accessible to someone who suspects that I am a violence-prone schizophrenic? Should the fact that I have a certain disease be no one's

be honored.

### The Intimate and the Routine

But the public aspect of the exemption seems only to exist as a means of supporting something more fundamental and, according to Luban, that is the self. The exemption points to the incompleteness of the self, and to its need to fulfill itself through a reliance on people outside of itself.

The most complex and contentious case in which this occurs is that of the spouse. It is contentious just because it is not entirely clear what the bases for the exemption might be and because the characterization of those bases seems to require an appeal to some notion of what is essential to the family and household.

It may very well be that historically this exemption has been closely tied to the property relationship that existed between a husband and wife and that the exemption was, for the most part, exercised in one direction. But in the contemporary context it is more usual to see the exemption as a means for maintaining the ability of two people—husband and wife—to engage in intimate discussions and to share secrets that are not shared with others. On this view, and quite plausibly, the function of the exemption in the case of a spouse is based upon some sense that what is at issue is privileged information.

This is of course a plausible interpretation. And it is one that sees the exemption as broadly consistent with a set of concerns within privacy law. After all, we have seen that one important stream of thinking about privacy sees it largely as a matter of the protection of information.<sup>14</sup> And in the U.S., a string of recent court cases seem to have supported this view, as they have inquired into the right of police to use various technological means to gather information about the actions of individuals.<sup>15</sup> Indeed, commentary on the most cited of these cases, *Katz*, seems to support this view, just to the extent that it claims that after *Katz* the Fourth Amendment “protects people and not places,” and by implication, protects information about people.

But I would suggest that a revisiting of the *Katz* case casts some doubt upon the validity of this interpretation of the trend in American privacy law and points to a different way of thinking about this exemption. *Katz* was the case of a person whose telephone conversation, originating from a telephone booth, was recorded by law enforcement officers. *Katz*’s attorney’s argued that even though he was not in his home, he expected that any conversation carried on in such a setting would be private. The U.S. Supreme Court agreed.

On reflection, it should be clear that, contrary to popular belief, the Supreme Court was not claiming that privacy applied to people and not places. Rather, it was claiming that as technological changes—the

cian tends to the physical needs, the needs of the body. And an attorney mediates between the individual and the state. In these four groups we see represented the family, the spirit, the body, and the outer, public world. In a sense, then, we can see the limits on who may be required to testify as an expression of a belief that these are the essential elements of human life.

Luban's argument strikes me as provocative and compelling, a striking use of the details of the law to elucidate something about an underlying philosophical anthropology, about what it is to be human. And it goes well beyond the Katz standard, which ended with what people are willing to accept as private, to refer to a more fundamental set of beliefs.

Like much traditional philosophical anthropology—of the sort found in Cassirer, for example—this notion of what it is to be human makes no explicit reference to the world outside; it is as though it were possible for individuals and societies to exist on a kind of abstracted stage.<sup>12</sup> But I would suggest that it is possible to extend Luban's analysis, from philosophical anthropology to an implied geography. By doing so we can begin to develop a sense of what Anglo-American law seems to be assuming about the places in which it operates.

Perhaps the first thing to note is that in each case the members of the class exempted from testifying are in some way certified by the state. This certification has not been clean and unambiguous, and in fact, has its roots well before the invention of the modern nation-state. This is most clearly the case in the matters of marriage and of ministers and priests. As we know, marriage has in the West been conventionally seen as a spiritual bond, to be certified by a spiritual authority. But just as the certification of a minister or priest by a religious body is one that gives that person a form of authority in a public arena, so too does the certification by that minister or priest of a marriage make that union a public matter.

The cases of attorneys and physicians are rather more complicated. In the case of attorneys this is because of the complexity of legal history, which still exists within the context of competing and overlapping jurisdictions—secular, and religious. And in the case of physicians, the development of the profession in its current form occurred only in the early twentieth century, and it was only then that the profession was able to establish itself as a state-certified monopoly.<sup>13</sup>

Whatever the complexities, there are several things that we can say about these four groups. In a fundamental way, the existence of the exemption from testifying requires the existence of some form of institutionalized authority. And it requires a differentiated world, that can in a way map onto a similarly differentiated individual. At the same time, it implies the existence of something that we might term the "public." That is, it requires that there be a visible realm within which testifying occurs, and within which the exempted person's actions can be seen. Indeed, it is this public display that provides a guarantee that the exemption will

has both an external representation and a more “authentic,” but hidden, personality is rather new. Indeed, that idea developed only in the modern era. It developed after the widespread acceptance of the idea that the individual can appropriately be thought of in isolation from ties to family, community, and place, and after the acceptance of the view that the self can be seen as something that has no extension or location, but rather that subsists in its own form of Cartesian space.<sup>16</sup>

### The Body

A second exemption from the requirement of testifying is that accorded the physician, who cannot be forced to testify against a patient. Here again, it seems on the face of it that the issue is one of information. I do not want private matters that I have discussed with my physician to become public, through their exposure in a trial. But here again, it seems to me, the matter is rather more complex, and here again, it does not solely concern information.

In one sense, of course, this exemption is very much a matter of information. Here it concerns the establishment of a system within which people feel comfortable approaching a physician about sensitive matters, of socially stigmatized diseases, for example. To exclude physicians from testifying will make it more likely that people will carry their concerns about those diseases to a physician; the result will be that the spread of disease will be attenuated. So we might want to see this exemption, in the end, as having at its roots a concern with public health and with balancing the social need for justice with that for public health.

But this is only a part of the story. Moreover, it smacks of a post-hoc explanation, of attributing to the societies within which the exemption was developed a fundamentally modern understanding of public health. And it fails to make a compelling case for the exemption of physicians, in contrast to others in society who are conventionally viewed as privy to socially stigmatized information—teachers, bartenders, hairdressers, and the like.

Let me suggest that in developing an understanding of the exemption of physicians it will be useful to turn to the ways in which physicians treat the body. Consider, for example, the practice of draping patients during surgery. From a contemporary perspective it seems clear why this is done—it is a way of controlling germs. Yet the practice of draping predates the development of a germ theory of disease. And in fact, research suggests that it makes more sense to see draping as a way in which physicians distance themselves from and objectify patients. When draped, individuals lose their individuality; the particularities of body shape and size disappear.

Similarly, if we consider the practice of requiring patients to wear

invention of the telephone, etc.—occur, society needs to recognize that the places within which people carry out their lives also change. If in the past the paradigmatic private place was the home, now it may be a telephone booth.

Indeed, the difficulty that mainstream interpreters of Katz have had in seeing why the case is about places derives from their holding onto a very particular notion of what may constitute a place. It is a view wherein a region may be a place, and a town, and a suburb, and a house—but not a telephone booth. It is a view, that is, that takes as natural and given the existence of places of particular sorts and scales, and renders the rest invisible.

Still, it might appear here that the issue remains information. But if we turn back to earlier cases, and to English common law, we see that the focus—even before modern inventions like the telephone booth—was never just the home, and certainly not the inner sanctum of the bedroom. Rather, the restriction on government searches always extended beyond the walls of the house to the surrounding area, the curtilage, within which everyday activities were carried on. According to the Oxford English Dictionary, the curtilage consists of a small court, yard, garth, or piece of ground attached to a dwelling-house, and forming one enclosure with it, or so regarded by the law; the area attached to and containing a dwelling-house and its outbuildings.

And it points to this use as early as 1523:

FITZHERB. Surv. 1 b, A curtylage is a lytell croft or court, or place of easment to put in catell for a tyme, or to ley in woode, cole, or tymbre, or suche other thynges necessary for housholde.

It seems to me that this is the key.

In fact, the central concern in these cases is not the ability of people to share intimate information, but rather simply to carry on their everyday lives. What makes searches intrusive is not so much the fact that intimate details of a person's life may be brought into public view, though it is very often a concern. Rather it is just that where searches are a fact of life it becomes difficult to maintain the sorts of habitual activities that constitute everyday life. These webs of activities disintegrate. And I would argue that it is just this view that underlies the exemption of spouses from the requirement of testifying against one another. Certainly the issue of information is an issue. But what is more important is that the very act of giving such testimony, or even being under the threat of being forced to give it, is corrosive of the patterns of activity that keep a marriage and household together. And just as it is destructive of the household, it is destructive of the home as a place.

If this seems an eccentric view, it will perhaps seem less eccentric if we remind ourselves that the contemporary view that each individual

be out of place.

### On the Soul

When we turn to the matter of the soul, once again there seems a simple way of understanding the matter. In many societies, and certainly in Western societies, it is conventional to imagine that each person has a body and something else, a soul. Just as a well-functioning body is essential to human life, so too is a well-functioning soul. And just as there are people who develop expertise in dealing with the body, so too are there people who become expert in matters of the soul. Hence, it seems natural to assert that a special status ought to be accorded these experts, and it seems equally natural to imagine that conversations with them ought to be privileged in some way.

Now, this seems to me to be a compelling view, but I would once again suggest that it is only partial, and just because it leaves out of the picture the matter of the relationships between people and the places that they construct and inhabit. And, in fact, a second glance at the picture that I have laid out should suggest that it relies upon rather an emaciated view of spiritual life. Indeed, we might think of it as a Cartesian view, just because it seems to see “the spiritual” as a subset of the mental. Here, to adhere to a particular religion is simply to adhere to a particular set of beliefs.

But in fact, all religions are far more complex than this. They typically involve the carrying on of a set of practices, and at least some of those practices are typically carried on in particular kinds of places. Roman Catholicism is of course a prime example, and relevant just to the extent that it and its Anglican offshoots have been so important to the societies in which this exemption arose.

To be Roman Catholic is, of course, presumed to involve holding a certain set of beliefs. And it is also, presumably, to engage in certain forms of activities, such as prayer and confession, that can be carried on almost anywhere. But there is more to it than that. To be Roman Catholic is to attend religious services held in a particular kind of place. Through a well-defined set of rituals, this place has been consecrated and set apart from other places. In fact, the nation-state recognizes this setting apart in various ways, by the exemption of Church-owned property from taxes, and by the adherence to a right of the Church to be a place of sanctuary.

If the physical places that house the Church are in a sense carved off in space from the rest of the world, they are also carved off in time. The act of consecration creates a place that remains such a place until an explicit act of undoing occurs. Consecration is not for a fixed term.

Within the physical place, there is a parallel refiguration of the practices that occur, and of place and time. The activities within the Church

gowns when being examined in physicians offices we may be led to see this as a means of maintaining cleanliness, while at the same time ensuring examinees a degree of privacy. Yet the gowns offer little enough privacy, and it is often the case that the examination could be performed with the patient in street clothes. Here again, it makes more sense to see the function of gowns as one of homogenization. It makes sense, that is, to see gowns as a means by which physicians are able to re-represent patients as simply members of a class, and not as individuals.

These two cases, of draping and of the gown, in the end show the ways in which physicians—and the larger set of institutions within which they operate—have been able to create means for dealing with a simple and inescapable fact, that they have traditionally been likely in their everyday lives to have regular and sometimes unexpected interactions with people with whose bodies they have, as physicians, had the most intimate dealings. This is not so much a matter of the establishment of a way of dealing with sensitive information. Rather, it is one of establishing medical practices within which people are so different from the ways that they are in everyday life that the two forms of interactions cannot be confused. In one case the patient is draped or gowned; in the other he is not. Extending this process of differentiation is the fact that in one case the physician is in a kind of uniform—which may be rich and formal, or consist merely of a stethoscope—and in another she is not. And in one case the physician is in a particular sort of place, a highly institutionalized office or hospital room, and in the other in a very different sort of place. Indeed, the development of the modern image of the professionalized physician has been, in an important sense, one of the creation of standardized sets of symbols and places. It is no surprise that one element of this development has been the decline of the physician's house call—which took place in a medically unformalized place—and its replacement by visits by emergency medical technicians—uniformed and attended by enough highly visible (and audible) medical equipment to make it clear that this is no longer a "living room," but rather an "emergency site."

So each of these means—draping and gowning, wearing some form of uniform, and working in a recognized place—operates to carve off an area within which the body can be viewed and manipulated in ways otherwise unacceptable. Each is a way of allowing the body to be treated as a body, as a physical organism, without diminishing the patient and physician belief that both are in fact individuals who have moral and legal rights.

In my view, the exemption of the physician from testifying is, in large measure, a means by which this separation can be maintained. The appearance of a physician, sans stethoscope, in a witness box, speaking about intimate details of that person's body, would in a fundamental way undercut that separation, and disrupt what is an essential fiction, that people are not bodies. It would do so just because the physician would

mission of crimes. Indeed, one might well argue that the relationship between the attorney and the state is such that the relationship between the client and the attorney is not really fundamentally different from that between the client and the state. The difference is only that the attorney has a form of status that may enhance the client's ability to mount an argument that will prevail.

Yet here, too, if we slightly recast what is going on, it will seem more important. We need to imagine not that the issue is one of the attorney going into a courtroom with "special" or "secret" information unknown to the adversary. Rather, it makes more sense to see the attorney as acting for the client. In a sense, the attorney is acting as though she is the client, saying and doing things that the client would do, were he better informed. To put it in another way, the attorney is acting in place of the client.

Indeed, if the courtroom is an alien place for most people, it is quite the opposite for an attorney. A courtroom is where an attorney belongs. In a courtroom there are places set aside for the attorneys. There are places where they may go and may not go. There are places from which they may say certain things, and where they may not say certain things. So the attorney may say certain things in open court, but other things only after having approached the judge's bench. The attorney may question a witness when that person is in a witness box, but not otherwise. And in each case, the rule of attorney-client privilege ensures that the attorney not be forced to say more than the client himself would say. It establishes the courtroom as a place where a client may be said to have a place.

### Testimony, Identity, and the Place of Place

The preceding has been—and has been intended to be—a sketch. My intention has not been to lay out a synoptic view of the exemption from testifying, nor of the history of privacy, nor of the history of the relationship between privacy and place. It has been more modest. First, my intention has been to flesh out Luban's argument about the relationship between the exemption from testifying and what he terms a philosophical anthropology.

It has seemed to me that his work points in a fruitful way toward a means of seeing how, in our society, the concept of privacy has accrued a particular content. And in doing so, it suggests that the concept of privacy may be underpinned by something more substantial than a Katzian catalogue of what people think, that it may be an expression of a more firmly embedded set of beliefs about human nature.

Second, I have attempted to show that this "philosophical anthropology" implicitly involves a set of presumptions about the emplacedness of human actions. What may, at first glance, appear as a set of "beliefs" or

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in many respects operate according to a different calendar, according to an ecclesiastical calendar whose form is defined in terms of the planets and stars, and whose shape is firmly established, well into the future. The cyclical ordering of time—the day, week, year, and the human lifetime—is at the fore; cast aside is the putative homogeneity of time that we see outside the Church.<sup>17</sup>

At the same time, the activities that occur within the church building—masses, confessions, baptisms, and so on—seem in some fundamental way to belong there, to be properly carried out there, and if not there, always in reference to such a physical place. And it is here, it seems to me, that we need to see the real import of the exemption of ministers and priests from testifying. For the carrying out of these practices, the giving of oneself over to a different sort of place and to a differently structured time, requires that one be able to put aside the thought that one might at any moment be cast out. The maintenance of these structures of spiritual activity requires that participants believe that if they participate they can and will be seen as members, as belonging there.

And the specter of a minister or priest redefining his or her relationship with a parishioner, as one of defendant and witness, is corrosive of this ritualistic participation. It undercuts the possibility of a spiritual life not by virtue of violating intimate bonds, but rather by alienating the participant from the activities that undergird those bonds.

### The Attorney and the State

If we turn, finally, to the relationship between an attorney and a client, we find at the outset, once again, what appears a simple matter. The attorney and client engage in discussions, and these discussions are privileged; the court may not inquire into their nature. But once again, the matter is more complex and, indeed, more complex than in the other cases.

This is in large measure because of the relationship between the attorney and the state. If the relationship between the attorney and the state is often adversarial, there is a fundamental sense in which it is not and cannot be so. That is because one important function of the attorney is to represent the law, that is, to characterize the law in a way favorable to the interests of the client. But in this act of representation, the attorney is at the same time representing the state. This is because in the act of characterizing the law the attorney is acting as a voice for the state. Just to the extent that claims are made about the meaning of the law, it is being claimed that the law has a meaning, and a legitimate one.

Further, there are substantial limitations on the kinds of information that fall under the attorney-client privilege. For example, as officers of the court, attorneys are required to report information about the com-

of mental contents can plausibly be seen instead as a set of actions that are expected to occur in a specific context or place.

This in turn suggests that we ought to be wary of the increasingly popular prejudice in favor of seeing privacy as a matter of the protection of information. Indeed, it suggests that the focus on the intimate and secret elides the boundary between the private and the secret. It fails, in the process, to see the role of places in everyday life, to see the importance of everyday activity, and to recognize the damage done by its disruption.

This tentative and preliminary analysis leaves open a range of questions. On the one hand are questions about the historical and geographical differences in attitude to the exemption from testifying, questions about the genealogy of such rules, their strength, and the extent to which they are applied differentially. On the other hand are questions about the relationship between this exemption and other legal restrictions on the collection of information by government and the dissemination of that information. What, for example, can we learn from an analysis of rules about the release of census or medical data? To what extent do rules developed within one institutional setting support or conflict with rules developed in another? These two areas of inquiry should help us better to understand current changes in the relationships among information, identity, and place.

## Notes

1. David Mark, "Geographic Information Science: Critical Issues in an Emerging Cross-Disciplinary Research Domain: Report from Workshop on Geographic Information Science and Geospatial Activities at the National Science Foundation," (Buffalo: National Center for Geographical Information and Analysis, 1999): 18.
2. Albert Gore, "The Digital Earth: Understanding Our Planet in the 21st Century" (Los Angeles: California Science Center, 1998).
3. For exceptions in the work of geographers, see Michael R. Curry, *Digital Places: Living with Geographic Information Technologies* (London: Routledge, 1998) and Michael R. Curry, "The Digital Individual and the Private Realm," *Annals of the Association of American Geographers* 87:4 (1997): 681-99. In the work of non-geographers, see Philip E. Agre, "Surveillance and Capture: Two Models of Privacy," *The Information Society* 10:2 (1994): 101-27; Sheri Alpert, "Privacy and Intelligent Highways: Finding the Right of Way," *Santa Clara Computer and High Technology Law Journal* 11:1 (1994): 97-118; and Roger Clarke, "Profiling: A Hidden Challenge to the Regulation of Data Surveillance," *Journal of Law and Information Science* 4:2 (1993): 403-19. There have, too, been particular areas within which work has been done. The U.S. Bureau of the Census, for example, has developed sophisticated statistical techniques aimed at preventing users of small-area data from drawing inferences concerning particular individuals or households; see Brian Greenberg and Laura Voshell, "Relating Risk of Disclosure for Microdata and Geographic Area Size," *Annual Meeting of the American Statistical Association* (1990): 450-55; T.B. Jabine, "Statistical Data Limitation Practices of U.S. Statistical Agencies," *Journal of Official Statistics* 9:2 (1993): 427-54; T.B. Jabine, "Procedures for Restricted Data Access," *Journal of Official Statistics* 9:2 (1993): 537-89; C.S. Guynes, "Protecting Statistical Databases: A Matter of Privacy," *Computers and Society* (March 1989): 15-20. And the same questions have been addressed in the area of public health data; see M.P. Armstrong, G. Rushton, and D.L. Zimmerman, "Geographically Masking Health Data to Preserve Confidentiality," *Statistics in Medicine* 18:5 (1999): 497-525.
4. *Katz v. U.S.*, 389 U.S. 347 (1967).