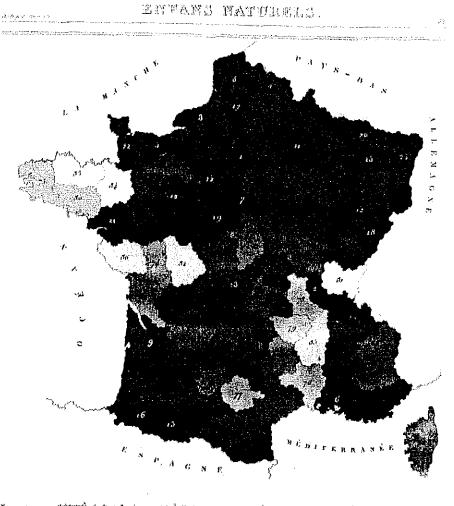
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A TRANSLATION OF ANDRÉ-MICHEL GUERRY'S ESSAY ON THE MORAL STATISTICS OF FRANCE (1833) A Sociological Report to the French Academy of Science

André-Michel Guerry

Edited and Translated by Hugh P. Whitt and Victor W. Reinking

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To the Memory of

Nicholas Babchuk (1922-1999)

Alan P. Bates (1915-2000)

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FOREWORD

André-Michel Guerry's *Essay on the Moral Statistics of France* is the foundation document of sociology and criminology. Yet, it was almost forgotten for more than a century, buried beneath the academic imperialism of Émile Durkheim and his circle. It gives me immense satisfaction that it finally is available in a fine English translation and that I played a role in the enterprise.

I first became aware of this remarkable work in 1980 as I began to discover that Durkheim had "borrowed" most of his theoretical ideas and virtually all of his empirical data from a remarkable group of scholars without academic affiliations who had pursued a field known as "moral statistics" (Bainbridge and Stark 1981; Stark, Doyle and Rushing 1983). The name reflected the fact that the phenomena they studied had moral aspects: suicide, crime, illegitimacy, military desertions, charitable giving, and the like. It was the early moral statisticians, working and writing several generations before Durkheim was born, who identified and demonstrated "social facts," showing that much human behavior is shaped by forces outside the individual. Having discovered Durkheim's immense and unacknowledged debts to the moral statisticians, especially the Italian Henry Morselli and the German Adolf Wagner, I then discovered that, unlike Durkheim, they fully acknowledged Guerry's priority.

Eventually, I was able to obtain a copy of Guerry's work from inter-library loan. My French is elementary, but it was sufficient to translate the labels on the tables and so I knew at once that this was indeed the work that launched it all. Guerry's data show that although the rates (yes, he knew enough to create rates) at which these various actions occur differs greatly from one place to another, they are amazingly stable over time-in any given place, year after year nearly the same number of people commit a given act. If suicide and crime, for example, are produced primarily by psychological factors, then the rates should be very volatile. Because they are not, they demonstrate social facts. In similar fashion, many of his other findings attest to the social character of behavior, including the very large gender and age effects.

However, although the tables were compelling and very well-presented, I still didn't know what Guerry had to say about them. Moreover, since I suspected he was a primary founder of sociology and criminology, I needed to read the book. So, sometime in 1987 I called the Chair of the French Department at the University of Washington and asked if there were a graduate student who might want to earn some money by translating the manuscript. He referred me to Victor Reinking. We struck a deal and within a few weeks Reinking completed a translation. Finally, I could read Guerry for myself; and what I read fully validated that he had initiated quantitative and ecological sociology and criminology: Guerry knew precisely what the data implied.

While it can be said that any intelligent person who studied these data and asked what they meant might have invented sociology, the fact remains that the person who first did so was Guerry! Moreover, his invention was not an obscure achievement lacking progeny. This book was an overnight sensation (at least among scholars and politicians) and was widely imitated for many decades. Indeed, the moral statistics movement attracted many practitioners across Europe–in 1834 the Statistical Society of London was founded by readers of Guerry's work. In 1848 Pliney Earle, a leading American practitioner of moral statistics, began to publish impressive studies of mental illness. And so it went.

Unfortunately, the moral statisticians, both here and abroad, were not professors. Some were bureaucrats, but most were independent, "gentleman" scholars, free to pursue their interests, and so they failed to establish a base in the universities. When sociology was first proclaimed from academia, it was by men who were determined to be its "founders" and were eager to bury all traces of the moral statistics in order to stake their claim. I have written extensively on these matters with William Sims Bainbridge (Stark and Bainbridge 1997).

For about the past 15 years, I have had a translation of Guerry's masterwork to read and to quote, but no one else did. Several times I thought about seeking a publisher, but I did not do so. Eventually, Hugh Whitt noticed my various synopses of Guerry's work, especially in my introductory sociology textbook, and got in touch. I passed him along to Victor Reinking, and this splendid volume is the result. I thank them both for enabling all to now share with this young Frenchman the excitement of seeing social facts for the very first time.

> Rodney Stark Professor of Sociology University of Washington

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PREFACE

This translation of André-Michel Guerry's *Essai sur la statistique morale de la France* has a somewhat curious history. The two of us have never met, and we had spoken only briefly with one another until the project was nearing completion. Although Whitt had been aware of the existence of Guerry's monograph since 1965 or so, he had not read it until the early 1990s, when he became curious about the potential implications of Guerry's work for his own research program on suicide and homicide. After examining a xeroxed copy he obtained through inter-library loan, he translated the relevant sections of the essay for his own use and filed his copy away for future reference. Some time later, he read the essay on Guerry in Piers Beirne's (1993) *Inventing Criminology*, which convinced him beyond all doubt of Guerry's importance in the history of both sociology and criminology. At that point, he dug out his copy of the *Essai* and began working in his spare time on a full-scale translation.

Whitt's expertise is in sociology and criminology. Although he has a fair reading knowledge of French based on courses in elementary and high school, he is by no means an expert on nineteenth-century French. The task of translating the *Essai* took an inordinate amount of time and effort and a great deal of help, which is

gratefully acknowledged, from Nicole Smith and Jordan Stump in the Department of Modern Languages and Literatures at the University of Nebraska-Lincoln. We are also grateful to Marshall C. Olds, a specialist in nineteenth-century French studies at the University of Nebraska-Lincoln, who went well beyond the call of duty in ferreting out obscure details of the operation of the *Bureau des Longitudes* in the 1820s.

When the first draft of Whitt's translation was nearing completion and he began working on an introduction, he sought advice on the project from Piers Beirne of the University of Southern Maine, whose essays on Guerry (Beirne 1993) and his contemporary and rival Adolphe Quetelet (Beirne 1987) are perhaps the best available in English, and Rodney Stark of the University of Washington in Seattle, who had also written favorably of Guerry's contributions to sociology (Stark 1996). Both Beirne and Stark provided extremely useful comments. But more importantly, Stark indicated that he had in his possession an unpublished translation of the *Essai* produced for his use some years before by Reinking.

Reinking's expertise *is* in foreign languages. His skills complement Whitt's familiarity with Guerry's subject matter, and the two of us agreed that we should produce a joint translation. The two translations were merged sentence by sentence and paragraph by paragraph to produce the final product, which contains elements of both independent translations. On issues of the meaning of particular French constructions, Reinking's reading or those of Professors Smith and Stump generally take precedence, while we have usually followed Whitt's reading in dealing with such matters as how to translate French legal terms. Both of us edited the final version for style.

Guerry's manuscript contains a series of elegant maps and sophisticated graphs. While it would have been desirable to reproduce the originals for this edition, the copies available to us have so deteriorated with age that we have used computer technology to produce readable graphics. For readability, we have also moved the data in the legends of the maps in Guerry's original plates to the Appendix, where they may be found in tables A1 and A2.

There are few other editorial changes. Guerry numbered most of his tables, but he was inconsistent in this respect, even occasionally embedding a table in a footnote. We have moved this material to the body of the text and renumbered the tables sequentially. Thus, in the *Report to the Royal Academy of Sciences*, which accompanies the manuscript, we guide the reader to the proper table through the use of table numbers for the present edition in brackets.

Also, in the tables on the relative frequency of crime at each age (Tables 9A and 9B in this edition), Guerry included several lines of various colors that "permit one to follow the development of several of these crimes from youth to the end of life." For technical reasons, we have omitted these lines and the text explaining them.

In addition to the contributions of the persons mentioned above, Whitt wishes to thank Professors Rob Benford, Mary Jo Deegan, Jennifer Lehmann, and Helen A. Moore, his colleagues in the Department of Sociology at the University of Nebraska-Lincoln, and Michael R. Hill (like Guerry an independent scholar and the Chair of the American Sociological Association's Section on the History of Sociology) for their encouragement on the project, and his former graduate students, Barbara McMorris, now at Iowa State University, and Greg Weaver, now at Auburn University, for their contributions to the "Guerry Project," of which the present volume constitutes a major part.

> Lincoln, Nebraska Seattle, Washington January, 2002

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INVENTING SOCIOLOGY: ANDRÉ-MICHEL GUERRY AND THE

Essai sur la statistique morale de la France

Hugh P. Whitt

This slim volume is a translation of the *Essai sur la statistique morale de la France* by André-Michel Guerry, originally published in 1833 by Chez Crochard in Paris under the auspices of the Royal Academy of Sciences. Like the contemporaneous works of Lambert Adolphe Jacques Quetelet (1831, 1835), the *Essai* signaled the birth of the European moral statistics movement.¹ In this regard, Alexander Von Oettingen (1882, p. 24), a leading German moral statistician, argues that "It is the French who have had the merit of giving moral statistics its first impulse. From this point of view, Guerry occupies the first rank" (quoted in Lottin [1912, p. 128; see also Žižek 1908, p. 1]). For this reason alone, Guerry ought to be

¹Émile Durkheim (1897) would disagree. He traces the beginnings of moral statistics to the German pastor Johann Peter Süssmilch (1741). See Lottin (1912, pp. 368-370), Porter (1986, pp. 21-23), and Hecht (1979) for discussions of Süssmilch's "political arithmetic." Süssmilch equated the morality of personal and political behavior with its contribution to maximum growth of human populations. While he did lobby for increased governmental activity in collecting demographic data and information on factors influencing population growth or decline--drinking, gambling, prostitution, war and priestly celibacy among them--Süssmilch's work is far less closely tied than Guerry's to the development of modern sociology and criminology.

a familiar name in the history of the social sciences, since moral statistics laid the groundwork for and later evolved into sociology as we understand the discipline today.

Guerry, Quetelet and the Origins of Scientific Sociology and Criminology

It is no exaggeration to claim that Guerry and Quetelet should be regarded as the cofounders of the empirical social sciences (cf. Porter 1986). Auguste Comte may have coined the term "sociology," but it was Guerry, Quetelet, the expatriate Italian geographer Adriano Balbi, and a few other scholars, most of them holding positions outside academia, who actually did the empirical studies that were to shape the development of sociology in France during the nineteenth century (Beirne 1993; Sarton 1935; Sylvester 1984). Indeed, even Émile Durkheim's work, especially in *The Rules of the Sociological Method* (Durkheim 1894) and *Suicide* (Durkheim 1897), is in some sense an extension of Guerry's. For those readers of the present volume familiar with Durkheim's writings, his largely unacknowledged debt to Guerry will be immediately obvious.

As Lindesmith and Levin (1937) argued long ago, there is also a strong case for regarding Guerry and Quetelet rather than Cesare Lombroso as the founders of modern scientific criminology. Despite the fact that the human ecology being practiced in the 1930s by the Chicago School closely resembled Guerry's pioneering work, many criminologists and sociologists of that era believed that the scientific study of crime began with Lombroso--that "prior to the writings of the Italian school nothing that merits attention had appeared" (Lindesmith and Levin 1937, p. 664). Lindesmith and Levin (1937) argue that one of the major reasons for the neglect of Guerry and Quetelet in the United States was simple ignorance of their work due to the absence of English translations. The situation has changed for Quetelet; his major works, *Recherches sur le penchant au crime aux differens ages* (Quetelet 1831) and *Sur l'homme* (Quetelet 1835), have now appeared in English translation, but Guerry's contributions have remained inaccessible to readers lacking facility with French. Until now, the *Essai* has been available only in the original French edition, which is becoming rare and is unavailable in many if not most college and university libraries. The only English translations have been of the few brief passages which appeared in book reviews in the *Westminster Review* (1833) and the *Athenœum* (Morgan 1833), also difficult sources to locate, and in discussions of Guerry's contributions by Terence Morris (1958), Sir Leon Radzinowicz (1966), and Piers Beirne (1993). But these are only fragments. One reason for publishing this new English translation of Guerry's magnum opus is to redress the neglect he has suffered for more than a century. Importantly, introducing the English reader to the complete text of the *Essay* makes Guerry's data and his ideas available to modern scholars.

Quetelet seems always to have been better known than Guerry, partly at least because he did a better job of self-promotion. The talented and ambitious Quetelet was constantly "scheming to build a scientific empire" (Porter 1986, p. 43) encompassing the realms of astronomy, probability theory, and social science. Porter notes that Quetelet

developed an extravagant system of metaphors and similes linking the social domain to the theories and even the mathematics of physics and astronomy. This was the much-vaunted science of social physics. It embodied Quetelet's bid to become the Newton of statistics, and not merely... its nineteenth-century Süssmilch (Porter 1986, p. 46).

As Radzinowicz (1966, pp. 31-32) points out,

Quetelet . . . was a man of genius and many talents, an eminent astronomer, a distinguished mathematician, in close touch with some of the most brilliant men of his time and well abreast of achievements over a wide field He seized upon the records of crime newly available in France as the raw material for a new kind of analysis. He claimed the place of pioneer in exploring the distribution of crime in society and assessing its significance. . . . Quetelet was like a huge tree, which tended to dwarf its neighbors. Though he paid a tribute, somewhat grudgingly and somewhat belatedly, to the work of Guerry, he always claimed that he had himself been the first to lay the foundation for the scientific study of crime. Radzinowicz (1966) provides us with a glimpse of Guerry the person. He was, says Radzinowicz (p. 32), "a very different man from Quetelet, modest and retiring, working in solitude." Indeed, Quetelet's *Recherches sur la penchant au crime* (1831) includes a long letter Guerry had sent him on September 11, 1831, that reveals both a high level of enthusiasm for his research and a certain youthful naiveté. Having learned of the forthcoming publication of the *Recherches* through Louis René Villermé, author of a major study of French prisons (Villermé 1820) and another of the loosely-knit network of fledgling moral statisticians, Guerry wanted to let Quetelet know he was working along similar lines. He included several *verbatim* extracts of material that would be published in the *Essai* two years later. As Guerry (1831, p. 70) put it, "It would be of great interest to examine up to what point we agree in research for which we have not at all been in concert."

In the letter, Guerry expressed "great pleasure" at the forthcoming publication of the *Recherches*, praised Quetelet's studies of human physical characteristics, and gave a brief account of a project based on this research he was working on with Jean Etienne Dominique Esquirol (1772-1840) and François Leuret (1797-1851). They were measuring the pulse rates and cranial dimensions of the "furious lunatics" at the asylums at Charenton and Saltpêtrière and the inmates of the Bicêtre prison, and Guerry suggested that perhaps Quetelet might want to collaborate in the project by measuring pulse rates in Brussels at the same times of day.

From Guerry's point of view, the relationship between the two was clearly positive as of September, 1831. But the letter was a mistake; Quetelet used it to establish his own priority as the founder of scientific criminology against claims he mistakenly thought Guerry might make to that honor. One of the extracts from the draft of the *Essai* included in the letter was the passage:

Criminal statistics becomes as empirical and accurate as the other observational sciences when one restricts oneself to the best-observed facts and groups them in such a way as to minimize accidental variation. General patterns then appear with such great regularity that it is impossible to attribute then to random chance. Each year sees the same number of crimes in the same order reproduced in the same regions. Each type of crime has its particular invariant distribution by sex, by age, and by season of the year (Guerry 1831, p. 71, our translation).

Quetelet's (1831) comment on the letter in the *Recherches* obliquely suggests the beginning of a turf battle over priority in discovering the principle of the constancy of crime. "One will appreciate, without doubt," he said, "the motives which have inclined me to present here the extract which M. Guerry was willing to communicate to me concerning the new work which occupies him and which will be able to be published only after mine" (Quetelet 1831, p. 70).

Quetelet's motive was clearly to establish that he regarded Guerry's work as merely derivative of his own. In the *Recherches*, he made the now-famous parallel statement that:

one passes from one year to the other with the sad perspective of seeing the same crimes reproduced in the same order and bringing with them the same penalties in the same proportions. Sad condition of the human species! The share of prisons, chains and the scaffold appears fixed with as much probability as the revenues of the state. We are able to enumerate in advance how many individuals will stain their hands with the blood of their fellow creatures, how many will be forgers, how many poisoners, pretty nearly as one can enumerate in advance the births and deaths which must take place. It seems to me that which is connected to the human species, considered in a body, is of the order of physical facts. The greater the number of individuals, the more the individual is effaced and allows to predominate the series of general facts which depend on general causes according to which society exists and is maintained (Quetelet 1831. p. 69, emphasis in the original).

Quetelet, the consummate academic politician, found it necessary to defend his claim of priority, and, as Beirne (1987) points out, considerable long-standing personal animosity developed between the two. Quetelet was still taking gratuitous swipes at Guerry nine years later in *Sur l'homme (A Treatise on Man)* (1842, pp. 90, 96). Nonetheless, as Radzinowicz (1966, p. 32) notes, "Guerry characteristically allowed himself to be overshadowed." Joseph Lottin (1912; cf. Beirne 1987) devotes several pages to the priority dispute over whether Guerry or Quetelet was the first to discover the principle of the constancy of crime rates. The consensus is that priority indeed belongs to Quetelet, whose discussion of the topic in the *Recherches* clearly predates Guerry's *Essai*. Radzinowicz's (1966, p. 33) assessment, however, is that there was little to separate them:

I cannot escape the conclusion that in terms of chronology, there was very little between the two, not more than two years at the utmost. In their fundamental substance the two contributions were virtually parallel, and I feel it is fair to say that the sociology of crime owes its inception to Guerry as surely as it does to Quetelet. Quetelet's exposition was, on the whole, wider, more of a synthesis, bolder and more compelling. Guerry's was more cautious, and perhaps more thorough, illumined by his penetrating insight into the fundamental problems of social research. Their qualities were, indeed, complementary.

We agree completely. It is unfortunate that Quetelet and Guerry's mutual antipathy prevented them from collaborating. Together they would have been a formidable research team.

Guerry, Durkheim, and Nineteenth-Century Academic Politics

We maintain that nineteenth-century academic politics not only soured the relationship between Quetelet and Guerry but also had much to do with the neglect of Guerry and, to a lesser extent, Quetelet, in modern sociology and criminology. As Radzinowicz (1966) notes, there are two fundamental approaches to the study of crime, and, we might add, to the study of human behavior in general. One of these approaches, the one championed by Guerry in the *Essai* (but not in some of his other studies), most of Quetelet's work, and later in a broader context by Émile Durkheim (1893, 1897), views behavior as an expression of society. Its focus is on the ways in which *rates* of crime and other behaviors vary as a function of social structural and

cultural factors. In the context of criminology, it focus is on crime rather than the criminal.

The second approach focuses instead on the criminal as an individual, seeking to discover the individual factors that lead to criminality. In nineteenth-century criminology, this approach was exemplified (but not invented) by Cesare Lombroso and his fellow criminal anthropologists, who linked criminality to constitutional factors such as atavism and degeneracy. It can also be found in any interpretation-nineteenth-century or modern--which locates the causes of criminal or other behavior in individual psychology or biology without taking social structure into account.

Lindesmith and Levin (1937; cf. Radzinowicz 1966) point to the progressive "medicalization" (cf. Conrad and Schneider 1980) of criminology after Guerry and Quetelet as one reason for their neglect by American sociologists of the 1930s. Armed with Darwinian evolutionism, physicians and psychologists like Guerry's friend Esquirol, then superintendent of the lunatic asylum at Charenton, progressively appropriated criminology as their unique province of expertise, shifting attention away from the social sources of crime and toward a concern with the impact of degeneracy, moral insanity, or inheritance of "bad genes" on individual criminality (Wright 1983). Even Guerry slipped into this tendency, joining Esquirol's team to measure the cranial capacities and pulse rates of criminals and lunatics, as was noted above.

While the moral statistics tradition continued to reign in France and to make inroads in England and Germany, the Italian positivists were busily declaring all previous work unscientific "spiritualism" (Ferri, 1900) because some of it relied on subjective accounts (cf. Wright 1983). Like Quetelet, Lombroso was a systembuilder, and he gathered around him a group of devoted followers bent on extending the influence of his individualistic paradigm. Although some of them (Ferri 1883; Morselli 1879) were aware of Guerry's work on moral statistics and appropriated some of his methods and findings into their own work (Whitt, 1994), they nonetheless carried on an extended polemic whose goal was to establish criminal anthropology as the whole of scientific criminology.

It was such French positivists as Gabriel Tarde (1883, 1884, 1886a, 1886b, 1890) and Alexandre Lacassagne (1908) who came to the defense of the moral statistics tradition and a sociological interpretation of crime. As Wright (1983, p. 121) points out, the turf battle between the French and Italian Schools in the 1880s "took on the appearance of what might be called criminological Olympic Games, with the French and Italians pitted against one another for world supremacy."

This struggle between paradigms forms part of the background of the career of another system builder, Émile Durkheim, who tried, by every means at his disposal, to deliver a *coup de grâce* to the medicalized version of the sources of crime and deviance. Ironically, in the process he also dealt a severe blow to Guerry, whose work he might have been expected to enlist in the battle for the supremacy of sociological interpretations.

Guerry's absence from his rightful place in the sociological pantheon is largely due to the way in which Durkheim and his academic circle falsely claimed credit for the contributions of several generations of non-academic moral statisticians whose work they dismissed as unimportant, whose ideas they often misrepresented, and whose publications they cited incorrectly² when they bothered to cite them at all (Stark and Bainbridge, 1997; Whitt, 1994).

Guerry was not the only victim of Durkheim's single-minded pursuit of theoretical system-building (*l'esprit de système*, as Guerry calls it). Even limiting our attention to *Suicide*, Durkheim ran roughshod over anyone whose ideas differed in even minor ways from his own. He failed to give proper credit to Adolf Heinrich Gotthilf Wagner (1864), the great German moral statistician who first documented the relationship between Protestantism and suicide, and who, like Guerry, exhibited

far greater methodological sophistication than Durkheim's (1897) Suicide (Stark and Bainbridge 1997). Durkheim even dismissed Gabriel Tarde's potentially groundbreaking work on imitation as essentially beneath contempt, steering generations of scholars away from it until David Phillips and his colleagues resurrected it in our own day. Durkheim's treatment of the Italian scholars Henry Morselli and Enrico Ferri, whose work, despite its distinct Lombrosian cast, built on many of Guerry's empirical findings, was no better. Both Morselli and Ferri were writing about the social causes of suicide long before the appearance of Durkheim's monograph, but they are discussed only in a brief section on the relationship between suicide and homicide, and, even there, Durkheim's characterization of their position bears little resemblance to what they actually said in print or in papers presented at major international conferences such as the Congress of Rome (Unnithan et al., 1994; Verkko, 1951). Even the concepts of egoistic and anomic suicide, which we tend to think of as uniquely Durkheimian, were so well known long before the publication of Durkheim's Suicide in 1897 that lengthy review articles on both had appeared as early as 1880 in the pages of Popular Science Monthly, the nineteenth-century equivalent of today's Scientific American (Hopkins, 1880; Lord, 1880).

Our point is that many of Durkheim's ideas were not uniquely his own creations. He relied far more heavily than he could or would ever admit on the work of the early moral statisticians, including Guerry. Indeed, there is a strong basis for placing Durkheim's work in *Suicide* firmly in the moral statistics tradition begun by Guerry and his contemporaries (cf. Douglas, 1967). But perhaps more importantly, Durkheim's cavalier treatment of those who disagreed with his grand *système* and the almost exclusive reliance on his monograph as the starting point for sociological studies of suicide, coupled with the unavailability in English translation of the perspectives he more or less successfully suppressed, led to the disappearance of many alternative voices, including Guerry's, for more than a hundred years.

Durkheim's cool attitude toward Guerry's work is curious. The *Essai* is, in most respects, compatible with Durkheim's research program. It deals with social (or

²For example, Durkheim (1897, p. 52) gives the wrong name (De Guerry), the wrong title (he omits *Essai sur*) and the wrong date of publication (1835) for the present work.

"moral") facts in much the same way. In doing so, it rejects individual ("accidental") causes of variations in rates of crime, suicide, illegitimacy, donations to charity and the like and favors explanations based on other social facts, in particular population density and the distribution of wealth and literacy. Like Durkheim's *Suicide*, it examines seasonal variations in rates. And Guerry's detailed analysis of the relationships of various types of crime to gender and age parallels but is far more extensive and systematic than Durkheim's later treatment of the connection between marital status and suicide.

As representatives of the moral statistics tradition, Guerry and Durkheim shared the view that social or moral facts are "things" (as Durkheim, following Saint-Simon, who influenced them both, put it in *The Rules of the Sociological Method*). They agreed that such "things" as suicide rates are subject to invariant scientific laws similar to those governing the physical universe, and both championed statistical analysis as an effective way of examining human social behavior. If anything, Durkheim might have been expected to use Guerry to support his doctrine that social facts can only be explained by other social facts, since the two are in complete accord on this question. That he did not undoubtedly reflects their diametrically opposed positions on the relationship between theory and empirical research.

Despite their agreement that sociology (or moral statistics) should be an empirical discipline in some ways modeled on the physical sciences, there were major differences between Guerry's approach to data analysis and Durkheim's. Durkheim's system-building program led him to pick and choose patterns consistent with his integration-regulation theory of suicide from among the empirical findings accumulated over more than 60 years by Guerry and his successors, while ignoring or downplaying patterns supporting alternative interpretations. Indeed, an additional reason for Durkheim's rejection of Guerry may have been the latter's findings on the inverse relationship between the geographical distributions of suicide and crimes against persons. Suicide predominated in the north of France, and violent crime in the South. This finding could not be easily explained by Durkheim's theoretical system. Later replications by Maury (1860) and Despine (1868) confirmed the pattern for France, and Morselli (1879) found that it extended to the whole of Europe. Ferri (1883) noted that the inverse relationship between suicide and homicide could also be found in both short- and long-term time series. He and Morselli, independently, made the relationship between suicide and homicide the basis of an alternative theoretical system, less purely sociological, than Durkheim's. Durkheim had to reject their position in favor of his own. But to reject them, he had to reject Guerry as well (see Tarde 1884, 1886; Verkko 1951; Whitt 1994, for details). Theory came first for Durkheim, and he used carefully constructed arguments to bolster the power of his theoretical system against any and all competitors.

In marked contrast, Guerry roundly rejected the theoretical-deductive model of social research in favor of a more pragmatic approach. "No systematic spirit directs us," he said. "We have sought to support no theory. To have done so would have been to demonstrate philosophical short-sightedness and to poorly understand the interests of one's country, to attach oneself to facts favorable to a doctrine to the neglect of those which seem contrary to it."

While Guerry regarded his research as inductive and exploratory, it nonetheless contains implicit hypotheses which guided his choice of what relationships to examine. He repeatedly returns to the theme that his data fail to confirm such commonly held beliefs as the notion that poverty breeds crime or that literacy works against it. There are hypotheses here, but they are for the most part isolated generalizations made by the pundits and policy-makers of his day. Guerry's intent was to test the truth of these beliefs and to correct those that were mistaken so that more effective policy decisions could be made. Unlike Durkheim, he had no aspiration to weave his findings into a grand theoretical system. Practical application, not theory, came first for Guerry, and he used statistics to establish a factual basis for pragmatic public policy decisions. He used all the facts available to him, exploring possible relationships and discovering empirical generalizations, many of which ran counter to the accepted ideas of his day. When available data were insufficiently detailed to permit him to arrive at a definitive answer, he carefully laid out what kinds of data would be needed and practically begged the administration to collect the needed information.

Guerry is less consistently sociological than Durkheim. Although he interprets most of his findings in terms of the distinction between the "accidental" facts that lead to individual behavior and the social structural and cultural factors that affect rates, he nonetheless leaves room for the investigation of individual motives and speculation about the possible effects of biology and the weather on crime and suicide. This openness to non-sociological interpretations may have been sufficient in itself to place Guerry on Durkheim's "enemies list."

Patently, as we noted above, the statistical analysis in Guerry's *Essai* is far more systematic and sophisticated than anything Durkheim ever attempted. Guerry dealt in a surprisingly modern way with many of the methodological issues social scientists raise today in their quantitative methods courses. He used different words than we do but was clearly aware of questions of reliability and validity in his data and of the interpretive problems that can result from the ecological fallacy, multicollinearity, the identification problem, statistical interaction, and spurious correlation. He even invented content analysis as a way of discovering motives from the themes in suicide notes. And he did it *in 1833*!

Guerry's Life and Work

Guerry's primary data in the *Essai*, like Quetelet's in his *Recherches*, were drawn from the *Compte général de l'administration de la justice criminelle en France*, but Guerry supplemented these official tabulations with material from other contemporary sources, including his own careful compilation of data on all suicides in the city of Paris for the period 1794-1832.

The *Compte*, or "General Accounting," was a massive compilation of official criminal justice data, the first of its kind and the prototype of modern national databases on crime and criminals. It was commissioned in 1825, when the French

Ministry of Justice undertook the project of systematically collecting criminal justice data for the nation as a whole. Royal Advocates (prosecutors) in each of the 86 departments then in existence provided the Ministry of Justice each quarter with a complete and detailed account of criminal justice activities such as arrests and convictions. The first annual volume appeared in 1827. The data were immensely detailed, with information that permitted rates of each crime to be calculated for fine-grained age and sex categories, for the seasons of the year, and for each department. Quetelet (1831) points out that the *Compte* was so detailed that it even tabulated the hour of the day that thefts were committed in Paris.

This vast data collection effort, roughly comparable in scope to the Uniform Crime Reports compiled for the United States today, was initiated and supervised during its early years by Jacques de Guerry de Champneuf (1788-1852), who had been appointed Director of Criminal Affairs and Pardons in 1821. Guerry de Champneuf had apparently intended to analyze the Compte data himself. Unfortunately, however, he was removed from office and sent into exile during the wholesale purge of public officials that followed in the aftermath of the July Revolution of 1830 and the abdication of King Charles X (Pinkney 1972).

The relationship between Guerry and Guerry de Champneuf is curious. Although Morris (1958) maintains that they were apparently unrelated, Morgan (1833), a contemporary source, refers to Guerry de Champneuf as Guerry's "relative." According to Morgan (1833), who apparently had first-hand knowledge, Guerry de Champneuf was a man who, "though severe and unpopular, is undoubtedly a man of superior talent." Whatever the relationship, Guerry de Champneuf in some sense collaborated in the production of Guerry's two most important works--the *Essai* and his "monumental" (Lindesmith and Levin 1937, p. 656) study comparing the moral statistics of England and France (Guerry 1864)--but was unable to see either project carried through to completion. Guerry de Champneuf collected the crime data used in the *Essai* and published the *Compte* beginning with its first volume, which he was instrumental in planning, but he was able to do little or no analysis

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before he was sent into exile. When Guerry de Champneuf returned from his 20 year absence in about 1850, he and Guerry began working together on the comparative study of England and France (Elmer 1956); but Guerry de Champneuf died in 1852, long before its completion, and Guerry once again finished the project on his own.

Guerry de Champneuf and Guerry's similar names have been a source of confusion for some time. Some scholars, most notably M. C. Elmer (1933), who introduced Guerry to American sociology, erroneously fused them into a single individual under the name André-Michel de Guerry de Champneuf.³

To set the record straight, André-Michel Guerry was born in Tours on December 24, 1802, and died in Paris on April 9, 1866. After studying law at the University of Poitiers, he was admitted to the bar in Paris, soon becoming a Royal Advocate. In the course of his duties, he was required beginning in 1827 to compile *Compte* data on Paris for the Ministry of Justice. He became so fascinated with these data and their stability from year to year that he soon abandoned the law to devote full time to analyzing and interpreting the amazing statistics he encountered in the *Compte* and collecting additional data on his own. Guerry was appointed Director of Criminal Statistics in the Ministry of Justice soon after the Revolution of 1830. It was in this capacity that he produced the analysis contained in the present volume.

Guerry rapidly gained attention as a creative and important scholar. While still in his mid-twenties, he teamed with the noted geographer Adriano Balbi (1782-1848) for his first publication, a one-page set of huge maps, *Statistique comparée de l'état de l'instruction et du nombre des crimes dans les divers arrondissements des cours royales et d'académies universitaires de France (Comparative Statistics of the Educational Situation and the Number of Crimes in the Various Royal Court Districts and Educational Districts of France*) (Balbi and Guerry 1829). A man of many interests, for the next two years he concentrated on studying folklore,

³In fairness to Elmer, he later corrected this error (Elmer 1956), but the damage had been done, and later scholars, including the present writer (Whitt 1968), repeated his mistake.

medicine, and meteorology. In 1830 he published *Sur les anciens chants populaires du Poitou (The Ancient Popular Songs of Poitou)*, a "curious memoir" (Larousse 1866), complete with musical notations of the songs, which appeared in the *Mémoires de la Société des antiquaires de France* (Guerry 1830). The following year his *Mémoire sur le rapport de phénomènes météorologiques avec la mortalité pour différentes maladies (Memoire on the Relationship between Meteorological Phenomena and Mortality from Different Diseases)* appeared in the *Annales de hygiène* (Guerry 1831). A book based on this research was later published by Chez Cosson (Guerry n.d), but the date is uncertain. Somewhere along the line he found time to invent the *ordonnateur statistique*, a machine that speeded up statistical calculations and made possible the extensive tabulations in the *Essai* (Larousse 1866).

In 1832, shortly before his thirtieth birthday, he published an expanded treatment of his earlier analysis with Balbi of the relationship between crime and education (Guerry 1832a), an article on the motives of capital crimes which was later included in the *Essai* (Guerry 1832b), and, with Jean Etienne Frumenthal Mitivié (1796-1871) and François Leuret, *Fréquence du pouls chez les aliénés dans ses rapports avec les saisons, la température atmosphérique, les phases de la lune, l'age, etc. (The Pulse Rates of Lunatics in Relationship to the Seasons, Air Temperature, the Phases of the Moon, Age, etc.) (Leuret, Guerry and Mitivié 1832). This study, which, as we have noted above, was mentioned in Guerry's (1831) letter to Quetelet, is the first of his two, or perhaps three, statistical studies of persons confined to the insane asylums at Charenton and Saltpêtrière and the prison at Bicêtre.*

Because of his habit of referring in print to titles of forthcoming volumes, it is unclear how many books Guerry actually published. Some of his books and articles are now apparently lost, and many of the coauthored pieces may or may not have ever appeared in print. For example, the back cover of the *Essai* contains an advertisement for the second book in the series on physiological characteristics, Recherches statistiques sur les dimensions de la crâne de l'homme sain, de l'aliéné et du criminel, d'après les observations faites dans les hospices de Charenton, de Bicêtre, etc. (Statistical Research on the Cranial Dimensions of Sane Men, Lunatics and Criminals based on Observations at the Institutions at Charenton, Bicêtre, etc.) by Leuret, Mitivié and Guerry. The same work is mentioned in the letter to Quetelet (Guerry 1831), but Beirne (1993) points out that it is unclear whether the book was ever published. Chez Crochard, the same house that brought out the Essai, did publish a book by this title in 1845 with Guerry as the sole author, but Larousse (1866) attributes it to all three coauthors.

Similarly, Guerry speaks of his research on the physiological characteristics of "lunatics" in the letter to Quetelet (Guerry 1831) mentioned above, referring to an additional book, *Histoire du développement de la tête humain moyenne*, (*History of the Development of the Average Human Head*) which he expected to publish with Esquirol and Leuret. We can find no record that it ever actually appeared.

In any event, Guerry was already a seasoned author when the *Essai* appeared in 1833. In its pages, he speaks of two additional "phantom" volumes, a report on his 1794-1832 time-series analysis of suicide in Paris and a bibliography on selfdestruction. The Paris suicide data are also discussed in the volume that served as the capstone of his long career -- the 1864 volume *Statistique morale de l'Angleterre comparée avec la statistique morale de la France (The Moral Statistics of England in Comparison to the Moral Statistics of France)*, which was awarded the Grand Prix in statistics by the French Academy of Sciences.

Unfortunately, few of Guerry's works except the present essay and the comparative study of England and France survive. Only three copies of the comparative study, which the French government attempted to suppress in the 1860s, were known to be in existence 45 years ago (Elmer, 1956). Fortunately, at least one copy survives today in the Library of Congress.

As the British criminologist Terence Morris (1958, p. 50) has noted, Guerry's research in the *Essai sur la statistique morale de la France* was "the first to utilise

relatively accurate criminal statistics to test . . . hypotheses . . . in light of the facts. . . . Guerry . . . raised . . . inquiry . . . to a level approaching . . . scientific enlightenment."

In his earlier collaboration with Balbi, in the present volume, and in his prizewinning comparative study of the moral statistics of England and France, Guerry used the methods of what is today called human ecology to uncover the causes of crime and assess the moral condition of nations. The *Essai* includes many highly detailed cross-tabulations and graphs showing the relationship of various types of crime to such variables as age, sex and season of the year as well as a set of maps, magnificently rendered in color, showing educational levels and rates of illiteracy, donations to charity, illegitimacy, crimes against persons and against property, and suicide by department. Each map is accompanied by a listing of the raw data on which it is based, and an Appendix provides ordinal data by department on several additional variables. Guerry's thoroughness makes it possible for modern researchers to reproduce Guerry's data set for reanalysis using modern statistical methods (for an example, see Whitt, McMorris and Weaver 1997).

Guerry's maps created a brief academic sensation. He took them on a grand tour of Europe and displayed them with pride.⁴ In England, his maps and the patterns they clearly revealed were noted with approval by the prestigious *Westminster Review* (1833) in a lengthy discussion in which Guerry's book was characterized as being of "substantial interest and importance . . . from its size and plates entitled to rank among 'show books,' and on the whole eminently calculated to lie on the tables of members of parliament and others, who to the possession of competence unite a taste for legislative inquiries" (pp. 365-366).

⁴Guerry returned to England to display several of his maps at the London Exposition of 1851. That same year, he exhibited eighteen maps based on a sixteen-year time series on English criminal statistics before the British Association for the Advancement of Science (Lindesmith and Levin 1937).

But the *Essai* was far more than a coffee table book. Guerry's observations in the *Essai*, and especially his cartographic methods, soon began to come to the notice of a number of French, Belgian, Italian, and German scholars (e.g., D'Angeville 1836; Greg 1835; Maury 1867; Niceforo 1897; Parent-Duchatelet 1837; Von Kan 1832; Von Oettingen, 1882). Given the favorable attention it received at the time of its publication, and indeed throughout most of the nineteenth century, it is difficult to understand Durkheim's (1897, p. 339) claim that Guerry's work went almost unnoticed in his own day.

The Chicago School human ecologists were aware of Guerry's work (Shaw and McKay 1942), and the influence of his cartographic approach and choice of subject matter can be seen in their analyses of the spatial distribution of crime, suicide, and social problems in Chicago and other cities. Edwin Sutherland cites Guerry and Quetelet as the founders of the "cartographic school" of criminology (Sutherland and Cressey 1978, p. 56). But Guerry was less often cited after the influence of the Chicago School began to wane. As Beirne (1987) points out, neither he nor Quetelet was included in Mannheim's (1972) *Pioneers in Criminology* or histories of criminology by Giddens (1979), Jacoby (1979) or Pelfrey (1980). Nonetheless, the interested reader can find his work discussed in greater or lesser detail in Verkko (1951), Morris (1958), Radzinowicz (1966), Taylor, Walton and Young (1973), Reid (1985), Porter (1986), Beirne (1987, 1993), Whitt (1994) and Stark (1996).

The Social Context of the Essai

There are two ways to read the *Essai sur la statistique morale de la France*. Modern readers unacquainted with the situation in France in the 1820s and 1830s can read it as an objective, value-free attempt to use the scientific method to assess the extent, distribution, and causes of crime, suicide, and other social problems in French society. On the other hand, the *Essai's* subject matter and style clearly reflect the temper of the times in which it was written. France during Guerry's day was obsessed by crime (Wright 1983) and suicide (Giddens 1965). There is little evidence that the crime rate was actually rising dramatically; indeed, crime rates dropped during the period 1818-1830 (Wright 1983). Nonetheless, there was considerable generalized fear of crime, especially in Paris, which was experiencing unprecedented population growth coupled with overcrowding, economic depression, widespread unemployment, runaway inflation, and the emergence of an impoverished underclass (*les misérables*) that many regarded as almost a race apart (Beirne 1993; Chevalier 1973 [1958]; Pinkney 1964; Wright 1983). "*Misérables*" connoted not only abject poverty but also the image of wretched despicable miscreants. The belief developed in some quarters that high rates of recidivism resulted from the activities of these "dangerous classes" (Beirne 1987, 1993; Chevalier 1973 [1958]). There was some basis for the claim, since, as Pinkney (1964, p. 2) notes, members of the dangerous classes were

the dispossessed, the "nomads" who had crowded into the capital at a time of rapidly expanding population and could find no respectable place in the city's life. Existing on the margin of legality they passed readily over the boundary into crime, undeterred by conventional morality, for they felt no obligation to a society that rejected them.

The Bourbon Restoration was also a time of considerable debate over criminal justice policy. The *Conseil général des prisons*, dominated by the *philanthropes* and the Royal Prison Society, had instituted extensive prison reforms aimed at rehabilitating offenders and thus reducing recidivism. The *philanthropes*' agenda included providing inmates with religious instruction, reading material, and better food and clothing as well as expanding the central prisons (*maisons centrales*) to relieve pressure on the overcrowded and dilapidated departmental prisons. In 1829, the Vicomte de Martignac reported that

the Bourbon monarchy had made notable improvements in the prison system. It had spent 28 million francs to upgrade central and departmental prisons. Sixty-eight departmental prisons had been repaired or reconstructed, nine others were in process; only a few . .. still needed attention. Of the local (arrondissement) jails, 198 had been refurbished, 17 were in process, and only 59 still awaited renovation. The remodeling and expansion of the Paris prisons and the *maisons centrales* was nearing completion; they were able to hold almost all the long-term convicts. A standard diet of bread and soup was now provided everywhere; clothing was furnished for the most indigent; camp beds were gradually replacing straw; work was being provided for a growing proportion of inmates; chaplains had been appointed and infirmaries set aside in most prisons. The most notable progress . . . had been achieved in the *maisons centrales* (Wright 1983, pp. 57-58).

But these reforms failed to lower the rate of recidivism. Just one year after the Martignac report, Charles X's minister of the interior Baron Guillaume de Montbel reported to the Royal Prison Society on the eve of the Revolution of 1830 that reform had gone about as far as it could go. Recidivism was actually increasing, and Montbel attributed the trend to the reforms themselves. Montbel's position reflected the government's "paranoid" fear that the Prison Society was a front for revolutionary activity (Wright 1983). The increasingly hard-line official position was that the reforms instituted by the *philanthrophes* amounted to coddling criminals. Making prisons more humane meant that they had "lost their power to deter through fear; they no longer punished but were not yet able to reform" (Wright 1983, p. 59).

When Guerry began examining the problem of recidivism using statistical methods, his findings could clearly be read as supporting the Bourbon hard-liners. Recidivism, he pointed out (Guerry 1833, p. 25 in this edition), was greater in the *maisons centrales*, where most of the reforms had been concentrated, than in the seaport *bagnes* (shipboard forced labor camps), which remained untouched by reform. Nonetheless, it is difficult to place Guerry neatly in either the conservative or the liberal (i.e., *philanthrope*) camp. One reason the reforms seemed to have failed, he suggested, was because they had been instituted in an unsystematic and random fashion.

The new government under Louis-Phillipe largely embraced the *philanthropes*' agenda, instituting a number of additional reforms in 1832. After a lengthy parliamentary debate, the deputies outlawed branding and mutilation, eliminated the lengthy public marches to the *bagnes*, and, most importantly, instituted discretion on the part of juries in sentencing convicted offenders. As Wright (1983, p. 63) notes, allowing juries to assess extenuating circumstances was intended to make the punishment fit the crime, but also to increase the conviction rate. Nonetheless, hard-line advocates of repressive justice argued that juries were almost always able to find extenuating circumstances. From their point of view, the decreased penalties assigned by juries outweighed the higher conviction rate, producing both an increased crime rate and a higher rate of recidivism. On this issue, Guerry was clearly on the side of the reformers. "Motives independent of their opinion as to culpability," he suggested, "often determine the jury's response --if, for example, they fear the application of a punishment which they judge to be too rigorous" (Guerry 1833, p. 8).

In short, just as Guerry avoided accepting any grand theoretical system for explaining the causes of crime and other social problems, he steered clear of choosing sides in the great and frequently acrimonious political debates over criminal justice reforms, debates that were factors in precipitating the Revolution of 1830 (Pinkney 1972) and continued for decades thereafter (Wright 1983). Guerry was neither a hard-liner nor a consistent ally of the *philanthropes*. Instead of aligning himself with either political faction, he placed his faith in science as a guide for public policy, drawing on statistical methods to evaluate claims of conservatives and liberals alike. Among his favorite phrases were "It is said that ... " and "Some believe that " One could fill in the blanks with virtually any idea about crime being expressed in France in the 1830s. Because he avoided commitment to any grand system, political or otherwise, he could turn his arsenal of statistical methods to the evaluation of a wide variety of ideas. His eclecticism allowed him to consider seriously diverse hypotheses drawn from all sides in the debate. As Reid (1985, p.

34) puts it, "Guerry's work appears to be the first to test 'armchair' assumptions about the relationship of certain variables to criminal behavior." He could examine cranial capacities and pulse rates, the phases of the moon and the seasons of the year, then turn his attention to evaluating evidence for the belief that population density affects the crime rate, the influence of education, and the idea that poverty causes crime. Some of his findings cast grave doubts on armchair assumptions, earning Guerry a reputation as something of a "heretic" (Cullen 1975). In particular, members of the British statistical movement found it hard to accept Guerry's finding that crimes against property varied directly with literacy and wealth in his ecological data, and the controversy continued for decades (Beirne 1993; Cullen 1975). Nonetheless, Guerry's interpretations of these controversial patterns have a surprisingly modern cast, with elements of both proto-Marxism and such rational-choice models as routine activities theory (Cohen and Felson 1979).

Although Guerry's studies of biological and climatological factors in crime and insanity were in a tradition that led eventually to the interpretive dead-end of Lombrosianism, the *Essai sur la statistique morale de la France* is a slice of criminological history that still has a great deal to say to modern criminologists and sociologists. Within its pages they will find not only a superbly done empirical analysis of criminological data, but also the beginnings of theoretical interpretations that later writers--Durkheim and Marx among them--would turn into grand theoretical systems. As Morgan (1833, p.539) put it within months of the publication of the *Essai*,

Guerry's work is an exceedingly valuable one; and we trust he will persevere in his most useful labours, the results of which may benefit generations yet unborn. He furnishes facts, on which, when time and experience shall have tested their truth, philosophers may build up theories, and legislators proceed to enact laws, ... and if some of his inferences be not, in our judgment, well supported, it is of little consequence--the facts themselves are all-important. In this spirit, we present this little volume to a generation long yet unborn in Guerry's day. With the publication of this translation of the *Essai*, the facts Guerry furnished, including his complete ecological data set on France's 86 departments (included as an Appendix), are once again available for our benefit. Over the years since 1833 we have, without question, gained the time and experience to test their truth and to put them to use in building up theories and informing public policy.

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