

# CRISIS ON CAMPUS

Confronting Academic Misconduct



**Wilfried Decoo**

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## Confronting Academic Misconduct

Wilfried Decoo

with a contribution by Jozef Colpaert

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The single most important component in an institutional culture of research integrity is institutional leadership committed to ethical conduct. If the institution's leaders are committed to integrity in research and act on that commitment, the campus will follow that lead; conversely, if the perception develops that the leaders pay only lip service to ethical conduct, the campus will adopt the same attitude.

—C. Kristina Gunsalus



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# Contents

Preface xi

## 1 Introduction 1

- 1.1 Finding the right balance 1
- 1.2 Entering the realm of academic misconduct 2
- 1.3 The extent of academic misconduct 14
- 1.4 Changing circumstances and risk factors 17
- 1.5 Countering and curing 34

## 2 Detection 37

- 2.1 Introduction 37
- 2.2 The detection of fabrication and falsification 37
- 2.3 The detection of text plagiarism 42
- 2.4 The detection of the plagiarism of ideas 51
- 2.5 The detection of software plagiarism 52
- 2.6 The detection of misused connections 55
- 2.7 The detection of academic make-believe 56
- 2.8 The detection of possibly deceitful educational software 58
- 2.9 Conclusion 59

## 3 Analysis 61

- 3.1 Introduction 61
- 3.2 Analyzing alleged fabrication and falsification 62
- 3.3 Analyzing alleged plagiarism 63
- 3.4 Analyzing the misuse of professional connections 99
- 3.5 Analyzing the self-promotion of one's own work 103
- 3.6 Analyzing academic make-believe 105



3.7	Analyzing possibly deceitful courseware	112
3.8	Analyzing the plagiarism of ideas	115
3.9	Conclusion	116
<b>4</b>	<b>Assessment</b>	<b>117</b>
4.1	Introduction	117
4.2	Fabrication or not? Falsification or not?	118
4.3	Plagiarism or not?	119
4.4	Can a thesis or doctoral committee be guilty of misconduct?	139
4.5	Can publications become misconduct?	142
4.6	When do research projects become deceptive?	144
4.7	When do educational media become deceptive?	145
4.8	When does ignorance become misconduct?	147
4.9	Assessing hidden motives	148
4.10	Conclusion	148
<b>5</b>	<b>Reporting and handling</b>	<b>151</b>
5.1	Introduction	151
5.2	Should one report misconduct?	151
5.3	The whistle-blower	154
5.4	Recommendations for reporting	162
5.5	The institutional response	169
5.6	The accused	177
5.7	The responsibility of editors and librarians	181
5.8	Conclusion	181
<b>6</b>	<b>Prevention</b>	<b>183</b>
6.1	Introduction	183
6.2	Constructive measures	183
6.3	Deterrent measures	192
6.4	Conclusion	196
<b>7</b>	<b>General conclusion</b>	<b>199</b>
7.1	My core issues	199
7.2	Final recommendations	202
7.3	A never-ending story	203
	Epilogue	205

Appendix: Cerberus	207
A.1 Comparing texts	207
A.2 Cerberus text-comparison mechanisms	210
A.3 Using the Cerberus program	223
A.4 Performance aspects	227
A.5 The Cerberus source code	229
References	235
Index	255



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## Preface

Persons who become involved in the discovery, investigation, and reporting of alleged academic misconduct seldom do so voluntarily or because of a natural scientific interest in the matter. One day without warning the subject is forced on them, much as they may become the victims of an accident, an assault, or a burglary. The first reaction is often bewilderment, anger, or fear. Nothing has prepared them to assess the situation calmly and objectively, or to decide on a judicious course of action.

My own involvement with the subject came about in just this way. In 1996 I was asked to review for an American journal a book written by a professor whom I will call X1. In the course of my analysis, I found passages that had been taken verbatim or nearly verbatim from other authors without, in my opinion, adequate citation. Fortunately, the responsibility of assessing and eventually reporting the matter was not mine alone. An Australian colleague of mine had discovered that some of her work had also been reused by X1, in her opinion also without proper identification of the sources. For several months we struggled with the excruciating question of how to handle this distressing discovery, in the process learning a lot about the challenges and variables associated with such a quandary. My Australian colleague contacted X1 privately, but his response was not deemed satisfactory. We finally consulted with the review editor of the journal concerned, who happened to work at the same American university as X1. From that point on, the matter was out of our hands and was handled by X1's department chair, by his university administration, and by the executive committee of the journal. Both the university and the journal conducted independent evaluations, which led to the conclusion that plagiarism had occurred. With the agreement

of X1, the journal published the case in detail, including a confession and genuine apologies by X1, who showed meekness as well as courage in facing the charges.

The case of X1 showed remarkable contrasts. On the one hand there were extenuating circumstances. All who knew X1 agreed that he was not a dishonest person and that there was no intent to deceive. The reasons for the plagiarism were understandable, even ordinary: a book that evolved from a course syllabus that had been put together hastily using various sources; a tradition of free sharing of information; enthusiasm to produce; time pressures; and, yes, slovenliness in referencing. X1 was probably not the first person in his field to indulge in this kind of behavior. In view of these circumstances, the assessors could have handled the charge quietly, minimizing the infringements and avoiding public disclosure. On the other hand, the university where X1 worked is known for its high moral standards and its strict honor code. It had to handle the case as seriously as possible, though it was obvious that the administrators involved struggled with the determination of an appropriate sanction in view of the extenuating circumstances and X1's otherwise good character. But a sanction was applied. The journal that published the case devoted much space to an analysis of the facts. Though it was done in agreement with X1, the public handling left him with deep scars.

In 1998 I was confronted with a second case, this time in Europe. As a member of an academic committee, I was asked to evaluate a recently defended and accepted doctoral dissertation for a supplemental research award. I will call the writer of the dissertation X2. After a thorough analysis, I concluded that X2 had not conducted any original research, nor indeed any of the announced research, and that nearly all of the material had been copied or paraphrased from other sources without, in my opinion, adequate citation. I submitted my report confidentially to the committee chair, who was also the president of that university. I expected a process similar to that followed by the U.S. university. I witnessed instead the distressing but, I have discovered, more common process of minimizing the alleged academic misconduct and invalidating the investigating process: a primary institutional concern with damage control, immediate containment of the matter, a limited internal inves-

tigation within a closed circle, ambiguous conclusions, and a forced closure of the dossier without further consequences for the academic in question.

The irony of the two cases is that X1's plagiarism was relatively minor, explainable in terms of time pressures and a defective methodology. Still his university, to its credit, did not hesitate to act appropriately, make a finding, and apply proper punishment. In the case of X2, the weight of identical offenses was tenfold, a whole doctoral committee was involved, and the yield obtained (a doctoral degree) was incomparably higher. The key players at that university, however, preferred a different approach and came to a different assessment.

After the first case was concluded, I received praise for my contribution to the advancement of professional standards. Even X1 thanked my Australian colleague and me publicly for having discovered the improprieties and for having helped resolve his problem. In the second case, my report, though requested, was clearly viewed as an unwelcome and even inappropriate intrusion. The message I got was that I had taken my assignment too seriously and should have closed my eyes as a matter of "collegiality."

Those disparate experiences, the effort involved, and my ensuing interest in the subject encouraged me to further investigate aspects of the detection, analysis, assessment, reporting, and prevention of alleged academic misconduct. In the course of this book I will continue to refer to the cases of X1 and X2—in particular the latter, because it provides numerous instructive examples. An "X3" and an "X4", in whose cases I was also involved, appear later in this study (see sections 2.3.3 and 2.5.2). And we may one day, regretfully, need to add more X-numbers. I felt no need to identify any of these persons—and attributed to all the masculine gender—though insiders aware of the cases may of course remember them. I did my duty in reporting the findings discreetly to the appropriate superiors; the responsibility from that point belonged to those who handled the cases. X1 was found guilty, X2 was exonerated, X3 and X4 never faced an investigation. This book does not tell their accounts as the usual "case studies". It is not a document filled with anecdotes about misconduct. There are no unsavory revelations. The

details of how to detect and analyze alleged academic misconduct is a lengthy and strenuous—and even tedious—process.

## Objectives

There are already numerous publications on academic misconduct. The bibliography at the end of this book represents only a small part of the estimated five to six thousand books and articles that have already been devoted to the subject during the past few decades. As I studied this literature, it was clear that the authors have struggled to find an acceptable balance between general features describing the phenomenon of academic misconduct as such, and characteristics typical of a certain discipline, a certain aspect, or a certain case. A book focusing on misconduct in medical research or on plagiarism will almost always discuss the broader perspective as well, whereas publications meant to sketch the entirety of misconduct actually tend to concentrate on just one discipline—for example, biochemical research—or on the codification of rules for avoiding misconduct, or on consequences for the whistle-blower. I also struggled to find a balance as this book grew from an analysis of alleged plagiarism to a broader-based investigation. I must now stake out its territory.

This book, mainly intended for faculty, institutional decision makers, and graduate students who have only scant knowledge of the realm of academic misconduct, has five goals:

- Against a short historical background, it presents a concise view of contemporary circumstances and developments that seem to affect the nature and frequency of academic misconduct.
- It presents a brief, but still comprehensive view of what can be seen as phases in academic misconduct: detection, analysis, assessment, reporting, handling, and prevention. Some publications are meant to deal with only one or two of these phases and/or with detailed histories of famous cases. Some authors make a thorough investigation of only one particular aspect, an approach that is very valuable for specialists. This book aims at giving a more general overview of the realm of academic misconduct. I have avoided writing in detail on items that have already been

treated exhaustively elsewhere, referring the reader instead to earlier studies for more specific information. However, I have probed aspects that seemed to deserve greater attention more deeply.

- It applies this methodology to a detailed case study—a doctoral dissertation—to show the complexities and ambiguities of a specific case in the humanities and to provide concrete information on related facets. Particular attention goes to techniques of academic “make-believe,” to the (electronic) detection of possible plagiarism, to the analysis of textual similarities, to the mutual collusion that can occur within a doctoral committee, and to the challenges associated with correct assessment. The case study forms a thread throughout the rest of the book, providing both the testimony of personal experience and an empirical basis. Some of these elements may be useful for subsequent comparative research on misconduct.
- It gives practical and sensible advice both to whistle-blowers and to those accused of academic misconduct. My hope is that this book will be useful to those who will one day be confronted with the unexpected.
- Finally, this book is rather short and clearly structured for easy reference, so that it can serve as a handy guide, particularly at the graduate-student level.

As acknowledged above, on a number of aspects of academic misconduct, I am less specialized than researchers who have studied these topics for a much longer time and from highly qualified perspectives. I commend these studies to those who need further information on a relevant point. My point of entry is somewhat different from the usual specialties that deal with misconduct. My discipline is in the humanities. I have academic experience in both Belgium and the United States. My linguistic expertise is useful in studying and identifying textual plagiarism, and my focus is on practical matters. I hope that this combination introduces elements that will meet with the interest and indulgence of those whom I consider major researchers into facets of misconduct. Whatever the weaknesses of this book, I am sure specialized researchers will concur on this point: every new publication on misconduct helps to raise the awareness of a phenomenon that deserves much more attention within academia.



## Structure

The chapters of this book deal systematically with major phases of the subject. It is important to carefully separate each phase from the others if academic misconduct is to be handled with prudence, dignity, and respect of the rights of each side. Indeed, the history of academic misconduct shows that it is an area where hasty judgments, generalizations, outrage, and irrationality have set the tone and influenced the consequences.

After an introductory chapter, which deals with context and general concepts necessary for understanding academic misconduct, the next two chapters handle “Detection” and “Analysis” of alleged misconduct. Both chapters often refer to each other, for the data of an analysis are necessary in understanding the rationale of detection techniques. Space limitations do not allow a thorough description of all detection procedures and analysis techniques, as they apply to diverse forms of misconduct. I will concentrate on some more than on others but will try to touch on most, referring the interested reader to more detailed approaches to certain forms of misconduct.

Detection and analysis focus only on gathering and studying the facts. The fourth chapter, “Assessment,” deals with appraisal: to what extent do the facts support a diagnosis of actual academic misconduct? What valid criteria can be applied to build a case? How should traditions and regulations in one field that differ from those in another field be taken into consideration? Can we obtain evaluations from respected academics to corroborate the seriousness of the findings?

The fifth chapter, “Reporting and handling,” discusses whether and how to take the next step. Should we report misconduct? In view of all the misery it can provoke for the whistle-blower, the accused, the institution, and individuals associated with all three—what considerations should compel this step? What reporting procedures can be used both to protect the whistle-blower and to respect the rights of the accused? What are the options for institutional response? If they chose to minimize and neutralize the allegations, what prompts such decisions? What are the options for the whistle-blower and for the accused at that stage? What can go wrong at the institutional level and what are the consequences?

Finally, the whole matter requires a more constructive perspective than sometimes ad hoc and unsatisfactory reactions to alleged misconduct. What can we do to help prevent academic misconduct?

This book refers to a number of examples of alleged academic misconduct. Most of them have been reported in professional journals or in the press. Although I indicate my sources, I avoid using the names of the whistle-blowers, the defendants, and the arbitrators. These cases have indeed been traumatic for the people involved, and I want my readers to concentrate on the cases, rather than the individuals, although the sources that I cite do contain such information. Because an important part of the discussion deals with X2's doctoral dissertation, which is meant as a case study of specific problems, I opted for a strictly anonymous approach.

For the sake of delineating responsibilities for what is written in this book, Wilfried Decoo is the author of all the material, with the exception of sections 2.3.1 and 2.3.2 and the Appendix on Cerberus, which were written by Jozef Colpaert.

### **Acknowledgments**

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# 1

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## Introduction

### 1.1 Finding the right balance

Since the 1980s, professional journals in many fields and numerous books have delineated cases of academic misconduct and discussed the phenomenon. An online search of any well-known journal with keywords such as *misconduct*, *plagiarism*, *falsification*, and *fraud* will yield a perhaps surprising harvest. At the same time, major groups and institutions in various parts of the world, such as the U.S. Office of Research Integrity, the American Association of University Professors, the European Committee on Publication Ethics, the German Max-Planck-Gesellschaft and Deutsche Forschungsgemeinschaft, the French Centre National de la Recherche Scientifique, and the Dutch Koninklijke Nederlandse Akademie van Wetenschappen, have acted to raise the academic community's awareness of academic misconduct. Their new or renewed policies and regulations encourage reporting of cases of alleged misconduct and suggest procedures for handling them, for combating misconduct more efficiently, and for protecting the whistle-blower.

When dealing with a delicate subject like academic misconduct, it is important to avoid two extremes. One is the tendency to minimize the seriousness of the offense. Some feel that the academic community receives undeserved and disproportionately negative attention when cases of alleged academic misconduct are discussed and handled publicly. Aren't the cases very rare? Aren't they best resolved easily and locally, without publicity? This approach, however, risks underrating the extent of the problem, of encouraging inaction, and of undermining academic credibility in the long run. At the other extreme is moral indignation and

rancor about such cases, which may quickly become highly adversarial and legalistic. This negative response can infuse our collegial relations with fundamental distrust, breed witch hunts, and defame our profession.

Thus, finding the right balance is crucial. One way to do this is to make the issue discussible in an atmosphere of probity and objectivity. Academic misconduct is an inescapable reality that deserves to be researched like any other subject, even if such research presents major challenges, as Anderson (1999), for example, has pointed out. Any scientific field with the ethical courage to look at its own realm, identify areas of risk, analyze and assess troubling data, suggest ways to avoid deviation, and work to raise standards is an honor to its discipline and to the larger academic endeavor.

## 1.2 Entering the realm of academic misconduct

A few preliminary considerations are in order to introduce the topic as such. How old are controversies about academic misconduct? How do we define the terms *academic* and *misconduct*? Do characteristics of hard sciences versus soft sciences influence the perception of improprieties? Does such perception depend on the status of offenders?

### 1.2.1 A historical perspective

Recognition of academic misconduct dates back to at least the seventeenth century, when disputes about authorship and invention rights were taken before the newly created royal scientific societies in England and France. Gradually concepts such as intellectual property, copyright, patent, and trademark became accepted in the Western world and backed up by its legal systems. The history of research and discovery is replete with dramatic controversies over “who was first?”, with accompanying accusations of stolen concepts, falsified data, plagiarized texts, sabotage of research work, and even more repulsive deeds.

In 1830 Charles Babbage, known as “the father of computing,” described most of the fraudulent practices that still occur today. He identified them as “hoaxing,” “forging,” “trimming,” and “cooking.” He could not have foreseen how ineffective his intention to “deter future offenders” by simply exposing them would be:

Scientific inquiries are more exposed than most others to the inroads of pretenders; and I feel that I shall deserve the thanks of all who really value truth, by stating some of the methods of deceiving practised by unworthy claimants for its honours, whilst the mere circumstance of their arts being known may deter future offenders. (Babbage 1830)

Publications on various forms of academic misconduct appeared throughout the twentieth century, showing that the phenomenon is far from recent (Hering 1924; Salzman 1931; Edwards 1933; Bennington 1952; Lindey 1952; Weiner 1955; Harrison 1958; Arnau 1961). Since the mid-1970s, and particularly during the 1980s, a number of well-publicized cases have drawn the attention of the American public and of politicians to the phenomenon of misconduct at universities and research institutes (see, for example, Hixson 1976; Broad and Wade 1982; Savan 1988; Bell 1992). These cases led to new considerations and procedures for investigating and handling misconduct—in other words, to the “regulatory response,” which LaFollette (1999) has described very well. Meanwhile the literature on misconduct has exploded. As early as 1992, a report by the National Academy of Sciences on research misconduct listed over 1,100 bibliographical entries, mainly from the United States (National Academy of Sciences 1992).

No academic today can deny that academic misconduct is, at the very least, potentially present in all disciplines, in all parts of the world and that it involves both students and academic personnel. It not only produces unreliable scientific data but also leads to major conflicts between individuals and groups, undermines the credibility of institutions, and has a major negative impact on lives and careers of both whistle-blowers and defendants.

### 1.2.2 Defining academic misconduct

A brief discussion of definitions may be helpful.

#### *About terms*

The basic substantives vary: *misconduct*, *fraud*, *deceit*, *wrongdoing*, *impropriety*, and so on. Often these terms are used as synonyms, meeting the writer’s need for stylistic variety, while specialists may give or request precise definitions for each. I use them interchangeably, but my preference is for the word *misconduct*.

However, *academic* misconduct, *research* misconduct, and *scientific* misconduct communicate shades of meaning that deserve some explanation. *Scientific*, as used in Anglo-American institutional settings, usually refers to the hard or natural sciences, excluding soft disciplines such as the arts, humanities, and social sciences. In other languages and cultures, *science* usually includes all academic disciplines. Most of the literature dealing with research misconduct draws its examples from the natural sciences and hence uses the phrase “scientific misconduct.” But since misconduct is not limited to the natural sciences, this book makes no distinction between “scientific misconduct” and “research misconduct” even though it recognizes that the nature of misconduct may differ between hard and soft sciences (see section 1.2.3).

*Academic* is a broader term than *research*. Strictly speaking, *research* misconduct applies only to the infringement of rules dealing with actual research (for example, experiments, data gathering, calculation, and publication of results). Most reported misconduct has to do with those activities. But other forms of wrongdoing in academia are not directly related to research per se. These include falsifying a curriculum vitae, misusing project funds for unrelated purposes, embezzling grant money, purposely giving students either higher or lower grades than they earned, giving bogus course credit to winning athletes, using one’s office and position to conduct private business, granting an undeserved diploma in return for certain favors, omitting the name of a coauthor, either in publishing the article or in citing it later, rating a project proposal dishonestly or without having read the dossier, and so on. Since this book touches occasionally on such practices, the broader title “academic misconduct” seemed more suitable, though the core issues deal with research improprieties. Furthermore, within this broad focus, I concentrate on possible plagiarism as a case study.

### *In the United States*

For research misconduct as a general phenomenon, it is common to refer to the definitions of two major American institutions, the National Science Foundation (NSF), with its Office of the Inspector General, and the Department of Health and Human Services (DHHS), with its Office of Research Integrity (ORI). NSF defined scientific misconduct as “fabrication, falsification, plagiarism, or other serious deviation from accepted

practices in proposing, carrying out, or reporting results from activities funded by NSF” (NSF, Code of Federal Regulations, no. 45.689). The ORI published a similar definition: “Misconduct or misconduct in science means fabrication, falsification, plagiarism, or other practices that seriously deviate from those that are commonly accepted within the scientific community for proposing, conducting, or reporting research. It does not include honest error or honest differences in interpretations or judgments of data” (ORI, Scientific Misconduct Regulations, no. 50.102).

Faced with heterogeneous cases of alleged research misconduct, many felt that these definitions were too narrow and therefore inadequate. The U.S. Federal Commission on Research Integrity, created by Congress in 1993, held fifteen months of public hearings, studied thousands of pages of case histories, and found that a third of the reported cases of misconduct involved activities other than fabrication, falsification, and plagiarism. The commission proposed a broader definition: “significant misbehavior that fails to respect the intellectual contributions or property of others, that intentionally impedes the progress of research, or that risks corrupting the scientific record or compromising the integrity of scientific practices.” It added subdefinitions of each type of misconduct (cited in Burd 1995; see also Kaiser 1996; Price 1994a; Parrish 1996; Ryan 1996).

Scientists and organizations such as the Council of the National Academy of Sciences critiqued this proposed definition. Among the grounds cited were that the need for such a wide definition was exaggerated or that it might come to encompass accepted scientific practices, such as critical reviews that could be seen as a “failure to respect the contributions of others.” Holton and Grinnell (1996:I) warned that “to remain healthy, scientific research must be protected not only from misconduct but also from the undue zealotry in expanding the grounds for charging misconduct.” C. K. Gunsalus, who served on the commission, defended the broader approach, concluding: “Researchers must be willing to support the adoption of a workable federal definition of misconduct: one inclusive enough to cover the existing range of misconduct, treat all scientists involved fairly, and withstand legal challenges to investigators’ conclusions” (Gunsalus 1997b:I).

In a reaction to Gunsalus’s article, R. Bell, of the Office of the Inspector General at NSF, pointed out that the original, so-called narrow definition of NSF already includes “other serious deviation from accepted

practices.” He stressed that any research misconduct, if judged serious, falls under that definition and that the reference to “fabrication, falsification, plagiarism” is meant as indication of what is to be understood as serious. He added: “The current definition puts judgment calls front and center in that to prove misconduct, the scientists and administrators who handle allegations of misconduct in science need to develop a persuasive account of how and why an action seriously violated community standards. They need to explain and defend their judgments about seriousness” (Bell 1997:B11; see also Francis 1999; Guston 1999).

In December 2000, after four years of further debate, the Office of Science and Technology Policy released its “Federal Policy on Research Misconduct” for adoption by all Federal agencies that conduct and support research (Office of Science and Technology Policy 2000). The definition, which clearly narrows the matter to “research,” defines research misconduct as “fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.” Its definitions for each term are:

- Fabrication is making up data or results and recording or reporting them.
- Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
- Plagiarism is the appropriation of another person’s ideas, processes, results, or words without giving appropriate credit.

It should be noted that this narrow definition is applied to research funded by the U.S. Federal agencies, and that it encompasses “all basic, applied, and demonstration research in all fields of science, engineering, and mathematics. This includes, but is not limited to, research in economics, education, linguistics, medicine, psychology, social sciences, statistics, and research involving human subjects or animals.”

### *In other countries*

Other countries are carrying on similar discussions about whether the definition of academic misconduct should encompass a broad range of suspect practices or be limited to a few specific forms of misbehavior like the American “FFP” (fabrication, falsification, plagiarism) definition, which has been used as the basis for regulations in other countries.



In the Australian “National Health & Medical Research Council Statement on Scientific Practice” (1990, cited in Lock and Wells 1996:277–284), “FFP” is mentioned as the basis of misconduct, but it also includes “other practices that seriously deviate from those that are commonly accepted.” Special attention is thus paid to “misleading ascription of authorship,” which means adding authors to publications without their permission or authors who did not contribute to the research, and not mentioning those who did contribute. Such emphasis on the problem of authorship seems to be directly related to a number of well-publicized cases, which Swan (1996) describes.

In 1992 Denmark became one of the first European countries to take (renewed) action on scientific dishonesty. The Danish Committee on Scientific Dishonesty bases its definition on intent to deceive. It makes an interesting distinction between *serious* wrongdoing such as the fabrication of data, the distorted representation of results, and plagiarism, and *less serious* offenses such as presenting results to the public while bypassing professional forums, and failing to credit the observations from other scientists (reported by Andersen et al. 1992; see also Andersen 2000; Brydesholt 2000).

In the wake of an “unprecedented” case of research misconduct in Germany in 1997, which shook the German academic community profoundly (Koenig 1997), the Deutsche Forschungsgemeinschaft tackled the problem. A thirteen-member international panel, “Self-Control in Science,” prepared a set of vigorous and extensive *Proposals for safeguarding good scientific practice* (Deutsche Forschungsgemeinschaft 1998). Recommendation 8 asks universities and research institutes to establish procedures for dealing with allegations of academic misconduct and cites as examples “the fabrication and falsification of data, plagiarism, or breach of confidence as a reviewer or superior.” The commentary on Recommendation 8 stresses the need for legal expertise in defining and implementing the procedures, since legal proceedings “raise new and difficult legal issues,” including “the role of professional scientific standards within the regulations of state law, and the proof of scientific dishonesty, and with it the rules for the distribution of the burden of proof.” Recommendation 14 requires universities and research institutes to have rules of good scientific practice and procedures for handling

allegations of scientific misconduct as a condition for receiving any research grants. The commentary clarifies: “The definition of what constitutes scientific misconduct as such should be left to the institutions in which research is carried out, so as to ensure that they are appropriate to the specific research environment” (Deutsche Forschungsgemeinschaft 1998; for the situation in Germany, see also Christoph Schneider 2000; Stegemann-Boehl 2000).

In the wake of the same German case, the Max-Planck-Gesellschaft established a *Procedure in Cases of Suspected Scientific Misconduct* (Max-Planck-Gesellschaft 1997) in November 1997. Appendix 1 of the procedure includes a “Catalogue of conduct to be regarded as scientific misconduct.” Its basic definition reads: “Scientific misconduct occurs if, in a scientifically significant context, false statements are made knowingly or as a result of gross carelessness, if the intellectual property of others is infringed, or if their research work is impaired in some other way.” The details include the American “FFP” and identify as subcategories for the infringement of intellectual property:

- a) the unauthorized exploitation involving usurpation of authorship (plagiarism),
- b) the misappropriation, particularly in an expert opinion, of research methods and ideas (theft of ideas),
- c) the usurpation of scientific authorship or co-authorship, or the unjustified acceptance thereof,
- d) the falsification of the contents or
- e) the unauthorized publishing and making accessible to third persons of work insight, *hypothesis, theory or research method not yet published*. (Max-Planck-Gesellschaft 1997)

The degree of “seriousness” underlying the Danish definition and as defended by R. Bell (see above), is important. However, I feel that such a label cannot be applied beforehand to specific offenses: can we say that “plagiarism” is always serious, while “omitting the recognition of other scientists” is always minor? According to the quantity of plagiarized material, plagiarism can be minor (a few paragraphs) or major (whole chapters). It may not always be misconduct, even in its mildest form, when a researcher omits mention of the work of other scientists, for it may not be feasible to mention all work done elsewhere. But if the omission occurs deliberately—for example, in a doctoral dissertation—and thus ignores or obscures major work done elsewhere on the same

subject, it suggests misconduct of a rather serious degree. Carefully assessing the seriousness of a case—however the term is defined—is certainly important as a preliminary to reporting. The ORI complains that it is crushed under a workload of “trivial cases,” the vast majority of which it does not pursue (reported by Friedly 1997a:I; see also Buzzelli 1999).

### *Further considerations*

A major complicating factor is the broad gray zone between acceptable and unacceptable practice, a zone endemic to much academic research as such. Indeed, even if the end product of research is a sound and valid piece of work, a lot of stumbling and marginal scientific behavior may have preceded it. Indeed the result, the scientific article, is often, as Martin (1992:I) puts it, “a mythical reconstruction of what actually happened.” This process is not abnormal in the dynamic research by which science gropes for new knowledge, involving overworked senior researchers, inexperienced juniors, insufficient supervision, breaches in continuity, faltering equipment and devices, small and more serious recording errors, and little accidents of all kinds. Moreover, divergent degrees of tolerance toward these weaknesses, according to the academic context in which they occur, create varied realms, leading to different assessments of what is acceptable and what not.

As this discussion makes clear, it is rather simple to give a general definition of “academic misconduct,” but specific occurrences have divergent interpretations, as the vivid controversies between whistle-blowers and defendants demonstrate.

### **1.2.3 Differences between hard and soft sciences**

Hard sciences, such as medicine, chemistry, or physics, rely for their research mainly on experiments, measurements, data gathering, and calculations. Research in these fields usually has these characteristics:

- The publications are short and to the point. Conclusions are based on hard figures. Research misconduct will often involve the fabrication or falsification of the experimental data.
- Research in these sciences is usually a joint venture, as is obvious from the various authors’ names on one publication. Assistants are involved in the process, and their contributions, even in the form of an individual

thesis or dissertation, is part of a larger whole. This characteristic has led to some famous cases where the responsibility for misconduct has had to be apportioned among several participants.

- The information published by researchers in the hard sciences is expected to add something new to scientific knowledge. This new contribution must be spelled out from the onset and clearly placed in the broader context.
- The publication is normally directed to specialized peers worldwide and bibliographical references to it appear in standard, easy-to-consult databases. Since English has become the language of scientific publication, even for non-Anglophones, the publication usually has an immediate international audience.
- Research results in the hard sciences have the potential to affect people's lives. If the information is also publicized through the media and inflated by journalistic commentaries, claims—for example, that a certain substance taken during pregnancy may cause mental retardation in the infant, or that sugar is not so bad after all—can cause large-scale changes in public behavior. As a result, the consequences of misconduct in the hard sciences are potentially severe.
- However, in general these sciences are self-correcting when misconduct appears. Publications listed in databases reach a wide audience of specialists who will take issue with the results and become part of the citations in related studies. False conclusions, it is argued, cannot stand indefinitely, for new experiments will contradict them, thus giving the hard sciences a reputation for being self-policing. At best, this is true. However, self-policing may be considerably reduced when it involves work that is less visible or has little impact.

Soft sciences, such as languages, the humanities, or philosophy, tend to present a different profile. For example:

- These disciplines rely heavily on longer, descriptive and analytical writing as the output of their research. Hence, plagiarism seems to be the most frequent form of academic misconduct in these fields.
- In many cases, the work is an individual endeavor, so that it is difficult for an author to project the responsibility for misconduct onto someone else.

- A significant number of publications in these fields do not really contribute new knowledge or insights but rather comment on other publications or summarize what others have done. Sometimes common concepts or long-standing aspects of a discipline are presented with new jargon, giving an erroneous impression of novelty. Sometimes authors unaware of preceding research reinvent the wheel or attempt to inflate the significance of a trivial discovery.
- Except for articles in major journals or books published by high-profile publishers, most of the output of soft science research is hardly noticed outside a small circle. Thousands of articles, in scores of languages, appear in specialized or local journals that are not linked to international referencing systems. Many theses and dissertations in the soft sciences are probably read by only a few persons.
- Almost none of this work has any impact on the public at large, so there is no direct public interest involved in cases of misconduct.
- Usually, no elements of self-correction function, because much of the research will never be checked and only a fortuitous discovery will bring any misconduct to light.

However, these distinctions between hard and soft sciences do not mean that the two are divided into completely separate realms with their own characteristics. It would be inaccurate to conclude that in the hard sciences fabrication and falsification are easy to ferret out and plagiarism is almost nonexistent. Such a view is based on the limited perspective of top American science but does not take into account the situation in less developed countries and in other languages. Furthermore, several notorious cases provide evidence that even high-profile U.S. research is not immune to misconduct and that establishing the facts of a situation can take years of investigation and argument. In addition, even the long-term exposure of fabrication and falsification does not eradicate them in the short run, expunge them from the databases, or eliminate the possibility of the recurrence of new cases. It seems irresponsible to neglect these grave effects by appealing to the argument that the field is intellectually healthy and will eventually correct itself. Furthermore, even with active policing, we can expect those perpetrating academic fraud to develop better techniques to cover their mischief. Plagiarism, even in the hard

sciences, can be rampant, especially in translation. A researcher may republish another researcher's material in a different language for a limited audience that has no way of recognizing its origin.

When we contemplate the soft sciences, the situation is even more complex than its list of characteristics suggests. Fabrication or falsification of data can happen if the research is based on experimental work with calculation of occurrences, inquiries, tests, and the subsequent extrapolation of figures. Certain disciplines, especially in pedagogical or sociological areas, rely heavily on this kind of research, which is prone to manipulation to prove a desired hypothesis. In my own field, the "best method of learning a foreign language" is usually "proven" by comparing groups that study a language in different ways. The test results lead to the naming of a "winner," which is invariably the learning approach the researcher has invented or has been endorsing. But it is quite easy to manipulate or to forget certain variables. This lack of rigor and objectivity, combined with ignorance about previous studies, comes close to research misconduct, even if there is no real intent to deceive.

#### **1.2.4 Differences according to the status of offenders**

Casual discussion among faculty members about misconduct on campus customarily focuses on student cheating, often by undergraduates of marginal ability. This approach naturally results in the assumption that misconduct is a characteristic of individuals who do not really "belong" to academia, who are only passing through. The anecdotes are numerous and almost everyone knows them or a variation: a student who submits a paper that he or she had actually written for a previous course, another who hands in a paper downloaded from the Internet, a third who uses a sophisticated calculator that also contains all the answers to exam questions, still another who sends a look-alike co-conspirator to the Testing Center, and so on. There seems to be a growing tendency among faculty to accept these occurrences as unavoidable and to assume that people will invariably cheat when they have a chance. Faculty members who discover such improprieties may shrink from confrontation and let the matter go. On the other hand, students who are caught will seldom, if ever, be helped or backed by their peers or by members of the academic community. They just had bad luck.

The perspective changes, however, when graduate students or teaching/research assistants are involved. They are viewed as preacademics who must prove themselves worthy of the trust of the profession. Research misconduct, in the narrow sense of fabrication, falsification, or plagiarism, is not tolerated from them. If found guilty of such behavior, they expect to receive and their professors expect to apply immediate punitive measures, including expulsion. However, at this level, relations between the protagonists have changed. Graduate students and teaching/research assistants have closer relations with the faculty, they are rendering various kinds of (personal) services, and they have not infrequently become aware of the department's or research group's internal secrets. Consequently, it is not unusual that political or other stealthy influences start playing a role in assessing alleged misconduct. If the accused is a protégé of a faculty member, if the alleged misconduct entails some responsibility on the part of the professor in charge, and/or if the misconduct occurs in a course or in a project supported by some and frowned on by others, various considerations surface that influence the accusation in different directions and create different interpretations of the conduct.

I once sat in on master's degree jury in which one professor felt that the graduate student should fail because he had clearly plagiarized a paper he turned in for this professor's course. But this faculty member was isolated in the department, and the student had the sympathy of an influential professor who could count on the collegiality of others. The vote was close but in the student's favor. The case of X2, discussed in detail below, was also strongly colored by these kinds of allegiances. As the whistle-blower, I was an outsider. X2's dissertation advisor felt that it was his immediate duty to strongly support X2, with whom he had had an intimate association for years in the same department. The doctoral committee, composed of friends and close associates of the dissertation advisor, also took an official position in X2's support, although the four members I contacted (four out of six) privately expressed serious reservations (see sections 4.3.10 and 4.4).

Once we move to alleged misconduct among faculty members, the perceptions can be heavily influenced by personal relations built up over the years, irrespective of the behavior's gravity. Friends will rally loyally to the accused's defense, while enemies will take a certain pleasure in

the person's downfall. The battle over a case of misconduct clearly takes place in long-established trenches, as famous misconduct cases have repeatedly shown.

The higher the rank and the academic prestige, the less credible an accusation of misconduct. Hence the reverberation in professional journals and in the media when a highly acclaimed researcher of the stature of a Nobel Prize winner is accused of research improprieties. Whether the allegations are true or not—and it may be impossible even to hold an investigation sufficiently objective to determine the facts—an army of supporters will vouch for his or her integrity, especially if the accusations were made by lower-ranking faculty, young assistants, or foreign scientists.

The fundamental problem in such situations is that academia is expected to police itself—headed by the accused's peers and if possible within the walls of the institution. To counter the risk of cover-ups and to ensure fair treatment for both whistle-blower and accused, some recommend that only neutral outsiders should be asked to evaluate an allegation of misconduct. But in the case of alleged misconduct by a prominent researcher, even “independent” specialists are, by the very nature of their specialization, part of the worldwide network in that field. Often they will know the protagonist from professional organizations and conferences, or even from personal exchanges and close cooperation. How much objectivity can be expected in such cases?

### 1.3 The extent of academic misconduct

This question has been debated so extensively in many publications that my original outline did not include it. However, the extent of misconduct comes up in any conversation on the subject, showing a need to establish an informational baseline for the discussion that follows.

Some scientists have the tendency to minimize, ignore, or even deny academic misconduct. C. K. Gunsalus analyzed some reasons for such attitudes, including structural aspects of academic work—specifically that scientists are often insulated from the darker realities around them: “As a result, many of them believe that problems are rare, that the few that occur can easily be handled, and, thus, that no money need be spent to develop procedures and train people to deal with misconduct” (Gun-



salus 1997b:I). Gunsalus criticizes scientists who make such minimizing generalizations without scientific proof.

Attempts in the 1980s to appraise the number of cases of academic misconduct showed significant obstacles to obtaining correct data (Phinney 1991; Sprague 1991; Woolf 1988) and triggered much controversy between the shocked scientists who had naïvely considered the problem limited to one or two “rotten apples” and the more cynical who described the scientific world as a “rotten barrel” (Broad and Wade 1982). It was some years before scientists and university administrators started to realize that they could not continue to disregard the pressing questions emerging from congressional hearings about the number of misconduct cases.

More precise figures now come from the official bodies dealing with academic misconduct, but they naturally reflect only cases that have been reported. In the United States, the Office of Inspector General (OIG) of the NSF receives reports of thirty to eighty cases per year, which are available for consultation online. The ORI reports an average of thirty-five to forty cases per year dealing only with medical and biomedical research. The number of new allegations received dropped to 166 in 1997 from about 200 in previous years, and to 129 in 1999. If the ORI comes to the conclusion that misconduct has occurred (in about one out of three allegations), it publishes the name of the accused, the related facts, and the sanction, also accessible online.

But how many cases never reach the stage of an official report? One indication is given by Swazey, Anderson, and Louis (1993), who asked 4,000 U.S. researchers (2,000 doctoral candidates and 2,000 graduate faculty) if they had ever witnessed research misconduct. Depending on the type of misconduct, 6 to 9 percent of the respondents said they had observed plagiarism or falsification by faculty. Between 13 and 33 percent, again depending on the type of misconduct, reported observing those behaviors among graduate students. When only faculty responses were studied, between 15 and 43 percent of faculty reported that other faculty had engaged in questionable research practices, as defined by the National Academy of Sciences. It is true the study by Swazey, Anderson, and Louis has been criticized, but other studies have corroborated this high prevalence of cases (Lock 1996a:15–16; Jacobsen and Hals 1996).

If these high figures of alleged misconduct are accurate, only a tiny fraction of allegations are ever reported and even fewer are published. But lists of the known cases (e.g., Lock 1996a) are still sobering in their sheer quantity. For the situation in Germany, Stegemann-Boehl lists an impressive number of known cases but continues: “German researchers and administrators in biomedical research estimate that the number of cases treated confidentially is considerably higher than the number of officially known cases of misconduct” (1996:191). Lagarde and Maisonneuve (1996:182–184), citing a “Latin mentality,” also communicate a lack of confidence in how misconduct cases are disclosed in France (see also Breittmayer 2000). Van Kolschooten (1993) published dozens of cases in the Netherlands, but also noted the reluctance, amounting to downright refusal, of universities to report cases. Similarly, the editors of three medical journals in Britain openly denounced the British General Medical Council and the Academy of Medical Sciences for failing to discuss and expose the many cases of fraud in medical research (reported by Birchard 2000).

Thus, the vast majority of cases never reach the statistics for at least four reasons. First, a probably significant amount of academic misconduct, if “well” carried out, remains undetected. Second, if discovered, many cases of alleged misconduct are never reported. Collegiality or fear of conflict or retaliation discourage potential whistle-blowers from speaking out. Third, even if people feel an obligation to report, the task itself may be impractical because of the problem of gathering sufficient evidence and the time and energy required to develop a convincing report. Whistle-blowers as a rule stand alone, not only carrying the full burden of their unwelcome chore but also the disapproval of their own colleagues. Finally, if a case is reported to the academic hierarchy, few institutions will report it further if they are able to keep it internal or if they have no legal obligation to do so. For the sake of their image, many will try to negotiate the case quietly or engage in a kind of administrative manipulation that is indistinguishable from a cover-up.

In consequence, it is difficult to determine with precision how widespread academic misconduct is, either in general or in a specific subfield. Quantitative investigations continue, however. The American Committee on Science, for example, planned to investigate the extent, if any, to

which senior researchers misuse the work of investigators under their supervision (Reynolds 1998). However, the important point is not how many cases there are in the world, but that such cases do happen and that analysis shows how easily they can occur, especially in view of the items discussed in the next section.

All in all, some researchers do not hesitate to say that cheating is “reaching epidemic proportions worldwide” (Desruisseaux 1999, citing Harold J. Noah and Max A. Eckstein, and their upcoming *Fraud and Education: The Worm in the Apple*). Given the dramatic rise in cheating “over the past several decades” among American high school students (Carlson 1999; see also section 1.4.5), there is reason to believe that this permissiveness will extend to students’ behavior when they are pursuing higher education or even when they themselves are part of the professoriate.

## 1.4 Changing circumstances and risk factors

Changing circumstances seem to exacerbate the problem. Some reinforce each other, creating ideal feeding grounds for improprieties and misbehavior.

### 1.4.1 The massive expansion of scientific research

The democratization of higher education and the exponential growth of scientific research since World War II have caused the numbers of students and researchers to increase dramatically (Ben-David 1991). In the United States, the NSF selects about 10,000 new research projects each year from about 30,000 proposals submitted by scientists from all over the nation. Another 10,000 awards are made to ongoing projects. From 1981 to 1998, the number of postdoctoral fellows in science and engineering rose from 18,000 to 39,000. The budget amounts to billions of dollars. In Europe, the immense Framework Programmes of the European Union offer new opportunities to thousands of researchers in the member states.

At the same time because of this expansion, the profile of researchers has changed. Many young and inexperienced staff members and part-time graduate students are employed in various projects (see also section

1.4.4). Frequently they lack proper preparation and training because of time, money, and personnel constraints within the allotted project. Often senior researchers consider them to be a labor pool of temporary assistants rather than as future colleagues to be mentored and fostered.

In this massive and complex enterprise, where academic freedom makes tight control over an individual's performance neither easy nor desirable, the risk of improper behavior has risen proportionately. It explains the constant plea in many parts of the world for more peer review, more precise performance goals, and more output verification in scientific research.

### 1.4.2 The heightened pressure to be productive

The heightened pressure on researchers to produce results and publish tempt some to find easier ways to fulfill the expectations. Hiring, advancement, and tenure frequently depend on such productivity. The problem is well known in the literature on misconduct. To quote only one source:

Conditions that favour dishonest conduct should be changed. For example, criteria that primarily measure quantity create incentives for mass production and are therefore likely to be inimical to high quality science and scholarship. . . . Since publications are the most important "product" of research, it may have seemed logical, when comparing achievement, to measure productivity as the number of products, i.e. publications, per length of time. But this has led to abuses like the so-called salami publications, repeated publication of the same findings, and observance of the principle of the LPU (least publishable unit). (Deutsche Forschungsgemeinschaft 1998:1)

My personal observations over my years in academia reinforce these views. Some institutions focus on good teaching as much—or even more—than strong research, especially schools that emphasize undergraduate studies. For example, departments of art, languages, philosophy, history, or religion (the latter in religiously oriented colleges) require faculty to devote much energy to the high-quality teaching of large groups of undergraduates. The same is true for basic introductory scientific courses such as in biology, chemistry, or geology. On the other hand, this emphasis does not lend itself easily to groundbreaking research or to the experimental teamwork that generates publications. As a result, many excellent teachers in higher education find themselves in a situation where they have little background, time, or means to do research. The academic evaluation system, however, requires them to obtain a doctoral degree and

to publish for tenure or promotion. Fulfilling both expectations—first-rate teaching and first-rate research—can create much tension.

One way to meet the research obligation is to develop an exotic research specialty that is basically unknown to one's departmental peers, thus making it possible to dodge internal quality control. No doubt many departments have "lone-wolf" researchers, working on a subject that seems both original and marginal and that remains isolated from the rest of the group of colleagues. Such work can be valuable, of course, but it increases the risk of uncritical work and may ultimately lead to forms of unacceptable scholarship.

The pressure to look productive can make people seek other channels to pad résumés. Professional friendships, return of favors, and mutual compensations encourage some to add "honorary" authors to publications or to push for being included as a coauthor. Conversely, fierce competitiveness and mutual distrust create a premium feeding ground for unethical moves, since a feeling of enmity toward one's peers reduces a sense of professional responsibility to them. Indeed, because academic productivity is also measured in the number of projects and awards obtained and in appointments to professional journals and organizations, such "honors" are sometimes bitterly fought for.

### 1.4.3 Insufficient guidance and control

Academic research supervisors are overburdened with responsibilities—preparing new projects, finding new funds, administering personnel, space, and equipment, sitting on boards and committees—all apart from their core tasks of teaching, research, and writing. Many lack the time to give proper guidance to their junior researchers and to supervise their work. Even at the level of postdoctoral fellows, neglect is a major problem, as reported by Alison Schneider (2000). Since the detection of certain problems, like plagiarism, requires much effort and perseverance, there is little chance that supervisors will be the first to notice it. This lack of awareness has also been noted in connection with student plagiarism in Australia (Academics in Australia 1995).

Because the number of theses and dissertations a professor directs is also a consideration in academic appraisal, professors have strong motives for taking on more graduate students than they can competently

handle. They thus have two reasons for becoming permissive on evaluation committees. First, even if their student performs poorly, they may not be aware of it if they have had no time to follow the work properly. Second, they need the student's accepted degree as an item to add to their own curriculum vitae. The case of X2, discussed in this book, seems a typical example of the combination of these factors.

More research is needed to analyze the professional activities that academic personnel carry out day by day and the impact of these time constraints on the training of junior researchers as well as on the oversight of various facets of research activities. Such findings could lead to more precise and practical recommendations—for example, on the critical minimum of training and supervision necessary in the academic research setting, and the critical maximum of work that a professor can handle adequately.

#### **1.4.4 The impact of a new breed of academic juveniles**

Having observed academic life since the mid-1960s and having been intensely involved in new developments in the humanities over the last two decades, I have witnessed a number of dramatic changes in academic personnel. Although I suspect that similar observations could be made, at least to some degree, about other academic areas and in other countries, I do not claim generalizability for the remarks that follow beyond my personal experience in my own field—the humanities in both a European and an American university.

An ever-increasing number of young and inexpensive research assistants are needed to fill positions in the numerous projects and grants available from science foundations, government initiatives, private ventures, overarching funding organizations, and so on, on local, regional, state, national, and international levels. Calls for project proposals have increased dramatically since the mid-1980s in the vast research programs launched by the European Union alone. Part-time research positions multiply the numbers of young people that can be involved. The ongoing struggle for office, staff, and laboratory space at virtually every university is material proof of this constant expansion.

At the same time, the quality of candidates is dropping. A few decades ago, only top graduates would be appointed to the few teaching and

research assistantships offered. Nowadays the exponential increase in positions obliges faculty to dig deeper for staff, hiring less competent and less motivated candidates. The very best, meanwhile, often find work in the private sector where they earn higher wages and build more prestigious careers. A number of these brightest graduates have also confided to me that they have become disillusioned by observing intrigues and abuses in academic hiring and advancement; they prefer the less political environment and seemingly greater stability of a career outside of academia.

Two other institutional factors, more intense in some countries than in others, contribute to this negative development:

- The decentralization of campuses, part of the vast European educational reforms of the 1970s and 1980s, ironically has resulted in decreased quality by isolating professors from peers. All too often, each is a king or queen on a personal island, lacking competitive and critical context. To boost their visibility and prestige, many establish a research center or an institute with an impressive name and home page, but with little depth. For political reasons, the fair allocation of research funds over the various campuses allows them to obtain (major) projects and grants, even if they do not really deserve these funds. Next they must engage research assistants with the weak profile I just described, who will then also work in an academically weak environment.
- The statutory and financial conditions for research assistants funded by projects and grants are usually less attractive than the comparatively rare but more promising academic track positions. Limited benefits and low wages make the positions less appealing for the top graduate students. As a result, low-level research openings are filled by relatively inexperienced graduates who see the job as temporary, an entry-level experience, or as a chance to hang around on campus while looking for a more appealing position. However, many of these assistantships carry with them explicit expectations that the research assistant will deliver papers at professional conferences, publish, and pursue a doctoral degree.

The consequence of these conditions is, in my experience, the presence on campus of a huge population of academic juniors who are there just to have a “job.” The quality of their work, the depth of their papers and publications, and/or the significance of their master’s or doctoral research

depends completely on the training and supervision provided by the project manager or research supervisor. If this manager lacks the motivation and/or the professional expertise to provide desirable mentoring (see section 1.4.3), we should not be surprised at the widespread erosion of what academia should stand for. I can best exemplify the problem by quoting (anonymously) this message, which appeared on a listserve for Computer-Assisted Language Learning (CALL) a few years ago:

I am a researcher at the University of (...). Since September, I am working on a research project and a Ph.D. dissertation on the subject of CALL and business communication. I am looking more precisely at the didactical implications of courseware development on the Internet. However, this is not evolving [sic] the way I would like it to, mainly because I am working alone, quite isolated. This is why (...) suggested to contact you. Indeed, I am looking for people with experience in this research field who could give me some pieces of advice or guidance and (...) was sure that you could help me find them. Thank you very much in advance.

Such messages are not exceptional any more on academic listserves that do not filter incoming mail. In this case, we apparently have a well-meaning doctoral candidate who wishes to do proper work but is receiving deficient academic support from a department that knows nothing about CALL but landed a CALL project. If individuals in the same circumstances were less motivated or less scrupulous, they could easily exploit the ignorance and negligence of their supervisor, concluding the term with a zero return. But at that crucial point, the researchers would need to provide tangible results for the project or grant. The temptation for the assistants and/or supervisor to fill the void would indeed be overwhelming—thus setting the stage for academic misconduct.

The message I quoted above takes on special significance in considering X2's case study (see section 3.3.1). Indeed, this message was written by another graduate assistant being supervised by X2's dissertation advisor, working in the same research unit in the same period. It thus provides relevant information about the context in which X2 was working.

In an article hailing the “ancient symbol of the revered, old scholar, full of wisdom and years,” J. Parini observes: “Especially in the humanities, excellence in scholarship often demands decades of preparation and immense patience. Young scholars in search of tenure and grants are too often encouraged to publish immature work—work naïvely absorbed in whatever passing approach and accompanying jargon happen to be



fashionable” (Parini 2000). Of course these sweeping generalizations about immature scholars need to be softened. Despite my pessimistic observations about ill-prepared, ill-motivated, and poorly performing junior staff, I have also seen exceptionally dedicated and competent assistants in various projects and circumstances. They should in no way feel targeted by the remarks I made about others. They themselves are often painfully aware of the problems—indeed, are often compelled to witness them in close proximity—but are seldom in a position to instigate reform and improvement.

#### 1.4.5 A cynical generation?

Articles and reports regularly indicate that cheating among college students is on the increase. Research conducted by Butterfield, McCabe, and Trevino showed that “more than three-quarters of the almost 2,000 students whom they surveyed at nine large public institutions in 1993 admitted to one or more instances of serious cheating on tests or examinations, or to having engaged in serious academic dishonesty on written assignments” (McCabe and Drinan 1999). These authors assign culpability to such factors as the erosion of traditional values, the lack of institutional support to enforce policies or to apply them equitably, and the lack of awareness, guidance, and assessment in matters of academic integrity.

Dishonesty, however, is not something that undergraduates discover. A 1998 survey by the Josephson Institute of Ethics found that 56 percent of middle-schoolers and 70 percent of high-schoolers admitted cheating on an exam—a 6 percent increase from the same survey administered only two years earlier. Concerns about this state of affairs led to such campaigns as the “Ref in your head” slogan, targeted at students aged ten to fourteen, sponsored jointly by the Educational Testing Service and the Advertising Council to reduce cheating among future high school and college students (Carlson 1999). But other reports indicate that even high school teachers and principals collude in cheating in response to the pressure for their students to reach certain levels on standardized tests (Goodnough 1999; Hartocollis 1999; Kantrowitz and McGinn 2000).

Observers express great uneasiness at how widespread the cynical view that the end justifies the means has become. Outspoken advocates of scientific integrity are particularly perturbed:

What happens to the scientific environment when people violate generally held concepts of right and wrong, and yet nothing happens to them, either because their institution chooses not to act or because it is powerless to act, as a result of inadequate rules and procedures? What happens when allegations of misconduct are poorly handled or whitewashed, or when an innocent scientist is wrongly accused by a malicious colleague and yet the investigation languishes for years, or when a whistleblower is vindicated but still suffers retaliation? Cynicism flourishes, morale erodes, and the cohesiveness of the scientific enterprise suffers, all because of a failure to honor the scientific principle of an unbiased search for the truth. The effects are particularly devastating for students, who are supposed to be learning to act according to the highest scientific and personal standards. (Gunsalus 1997b:1)

Consider this: many young scientists we and our friends have met recently view the required courses and lectures on scientific conduct as exercises in hypocrisy. The plain fact is that cheating pays—just don't get caught. And if you see the rules being broken, keep your mouth shut or you will be the target of reprisals by your colleagues and their higher-ups. Many of the papers being published these days exist only to provide entries in the bibliographies appended to C.V.'s of applicants for hiring, promotion, tenure, and awards. The actual papers are not usually read by anyone but their authors. So if there is something a little strange in a paper that has your name on it, no one will check. And if you have reached a senior position in your institution, nothing will happen if you do get caught! This is the cynical view of most of our younger colleagues, and it worries us very much, because it is largely justified. (Feder and Stewart 1994:1)

This phenomenon raises deep moral questions pertaining to the ethical education of our students and developmental direction that curricula and evaluation procedures have taken over the past decades. Has stressing the relativity of norms and values in a multicultural, global society led to a loss of the basic ethical categories of right and wrong? The strongly competitive system in which young people must succeed deserves part of the blame. Deeper roots may lie in personalities that are more prone to committing fraud. However, I will leave analysis of these moral, social, and psychological phenomena to specialists better equipped to analyze them (see, for example, Hackett 1999).

#### **1.4.6 The international perspective**

Is misconduct the same the world over? Do some cultures have different norms or traditions in assessing originality, standards of precision, data recording, and conscientiousness? If some norms and traditions are different, how are we to treat behavior that is deviant according to Western

norms? The potential problem has been compounded by the fact that, especially since 1960, an ever-growing number of students now study at universities not in their home countries. What understandings do they bring about “appropriate” conduct in academic life?

Indeed, rarely mentioned in the literature but frequently discussed orally is academic misconduct among students and researchers who are studying and working in a host land. As far as I could determine, no one has yet studied international students in the context of academic misconduct on a multi-institutional scale. One study at the University of Southern California found that international students, who make up 10 percent of the student body, account for 47 percent of academic dishonesty cases (“Foreign students” 1998; see also Anderson and Louis 1994; Goodstein 1991; Heller 1997; Hudgins 1997; Walfish 2001).

No doubt the reasons for culture-specific differences are diverse. International students may genuinely and innocently hold different understandings of what constitutes misconduct. We have probably all heard anecdotes about the young foreign researcher who falsifies or fabricates data to “please the master” who is looking for evidence to prove a hypothesis. Or about the international student who copies without quoting or citing, because copying a master is a sign of respect. Or about the student who in his home country became so skilled at memorizing long passages—which was the accepted form of correct learning—that he continues to do so, unwittingly reproducing verbatim sentences from other authors in his own work.

But ignorance is a relatively easy problem to correct. Other, less acceptable reasons may also feed into the problem. The initial evaluation of candidates from abroad may have been incomplete because of difficulty in assessing the value and originality of their credentials. Dishonest techniques, such as having applications rewritten, using stand-ins for entrance exams, and obtaining inappropriate access to standardized admissions tests, are on the rise (see Walfish 2001). If deception started at an early level, it is likely to continue during advanced studies and work. A strongly felt need to preserve resident status can also be a powerful motive for cutting corners in academic integrity.

All of these reasons deserve further consideration, but I think it is important to resist the idea that attitudes toward plagiarism in an academic

context vary from one culture to another—that is, that in some cultures, beliefs about intellectual property would encompass the view that plagiarism is normal (see for such viewpoints Dobrow 1993; Scollon 1995). I am aware of several cultures in which the artistic tradition views copying the master as a tribute to his talent. However, in none of these cultures is academic plagiarism considered acceptable. Chinese culture, sometimes mentioned as typical of this different cultural understanding, does not condone outright plagiarism in academia, as confirmed by various cases (Cong Cao 1996; Hertling 1995; Xiguang and Lei 1996). The high reputation of Chinese scientists could not be maintained if it did, as Chen-Lu Tsou (1998) points out.

Another aspect of the international perspective is the impact of political exigencies on personal values. Moral norms may be eroded by a system where survival or security requires dishonest practices. Bollag, citing the Czech economist Mejstrik, identifies academic misconduct as “a ‘rational’ response to the intellectual dishonesty enforced in academe under Communism” (Bollag 1993; see also Daniloff 1997, for plagiarism in Azerbaijani institutions). There are no doubt still countries where the whole of academia, because of its participation in a larger repressive or corrupt political system, simply requires deceitful routines if one wants to succeed or even survive. Even faculty in a democratic Western setting could rally to that need and overstep the ethical boundaries for a “good cause.” A colleague of mine related the following incident:

One of my friends was trying to supervise a grossly incompetent thesis by a student from (...) who had also plagiarized numerous sources. If he didn’t get the degree, his student visa would be revoked and he would be sent back to (...). Since the (...) government had provided a sizeable study grant for him with the understanding that he would get a degree, he would be required to pay it back. Since he couldn’t pay it back, he would be, at the least, jailed, and, at the most, executed. The entire department was trapped ethically, and, after ferocious consulting up and down the line, my friend ended up writing the student’s thesis so that it would be “graduate quality.” The plagiarism was not cultural ambiguity but this student’s desperation—he wasn’t good enough not to get caught. (From a message to the author)

#### **1.4.7 Interdisciplinarity**

Interdisciplinarity has become a sought-after goal in academic circles, although it is still relatively ill-defined. (For a critical evaluation of the

concept, see Wissoker 2000.) I consider interdisciplinarity to be the active mixing, in the activities of one person, of specialties from different disciplines. Thus, interdisciplinarity is different from multidisciplinary approaches, where specialists from various disciplines cooperate in a joint project, contributing their own expertise with due respect for each other's expertise. A person engaging in interdisciplinary activities is more likely to engage in academic misconduct for several reasons, which I explicate below.

### *Common and ill-defined border*

Computer-Assisted Language Learning (CALL) forms the focus of a number of examples and commentaries in this book, not because it is more susceptible to academic misconduct than other similar subfields, but because it is my own field of expertise. Therefore, interesting cases came more readily to my attention. It could as well have been the subfields of cultural studies or human computer interaction (HCI) or any other young interdisciplinary subfield.

As an interdisciplinary field, CALL has common boundaries with language learning, culture, literature, linguistics, pedagogy, learning psychology, epistemology, computer science, and more. Each of these disciplines is further subdivided, making the interdisciplinary puzzle even more complex. From each of these subdivisions a person can throw a bridge toward a related field, even if only for an occasional excursion. In the absence of departmental colleagues knowledgeable about the subject, a researcher could easily claim bogus expertise, especially because not much "real" research is needed to write about a subject. Many publications tend to summarize what has been done by others, to compare and comment, and to conclude that more research is needed.

Moreover, it is rather easy for such a person to publish articles by using the possibilities of vague interdisciplinary boundaries. One can submit an article or a paper from a certain subfield to journals or conferences of another subfield, provided there is at least a basic link. A linguist can enter the realm of human-computer interaction, a sociologist can appear in linguistics, or a literary critic can publish in a historical journal. In the original department of the researcher, interdisciplinarity thwarts proper peer assessment. Moreover, some less-than-first-rate professional journals

are rather lenient in accepting submissions that seem valuable because of the different outlook. Quite a few academic conferences need paying participants who will come only if they are allowed to present a paper. An analysis of articles and papers from a certain subfield, published in journals and conference proceedings from another subfield, but with a justifiable link, would probably reveal some empty and unoriginal contributions. But the subsequent C.V. of the participant uses these “empty” articles and papers as certification for a nonexistent expertise.

A bogus claim of expertise is not by definition academic misconduct, but it is a form of academic effrontery, sometimes to be explained because of naïveté. However, it approaches academic misconduct if it utterly “fails to respect the intellectual contributions or property of others” (see the definition of the Commission on Research Integrity, discussed in section 1.2.2). It may entail misconduct by making assertions that grossly ignore the state of the art and by disparaging experienced researchers; the “instant experts” guilty of this behavior have probably never conducted serious research and have nothing significant to offer, even if their public performance is dazzlingly convincing. One of the most famous hoaxes was Alan Sokal’s success in having a nonsense article published about quantum physics and postmodern philosophy (Sokal 1996; see also the many articles and discussions devoted to it on the Internet, as well as the resulting Sokal and Bricmont book, 1997).

If interdisciplinarity remains low key, it is relatively easy for plagiarists to avoid contact with the authors they have plagiarized from and who could recognize their work in a conference paper or a publication. Indeed, a small research area from one field may develop within another domain or subdomain. An example is that learning psychology is applied to CALL, or that HCI is applied to language learning. But each of these areas often functions independently of other areas because of scientific inbreeding. Most people read only the journals of, and attend only the symposia of, their own discipline. Plagiarizing out of another discipline greatly diminishes the risk of getting caught and therefore reinforces the temptation to continue this profitable course.

### *Utopian projects*

In certain interdisciplinary subfields it is rather easy to formulate impressive funding proposals. For example, on the topic of applying new

media to language pedagogy, it is simple to portray traditional language learning as a failure and exhibit the new media as a promising solution. With some ingenuity and the use of trendy keywords, one can formulate a visionary project, promising innovation, learning enhancement, fame for the institution, and even attractive financial returns through the commercialization of a revolutionary product. The novelty of the subject for granting agencies, the lack of a strong evaluation tradition, the mirage of an interuniversity network, and new rhetoric in talking about media and education—all these factors make it relatively easy to obtain funds given the right circumstances and gullible evaluators. But once granted, can such projects fulfill the promises? Interdisciplinary approaches, as in the case of language pedagogy with new media, are very challenging, as serious researchers and developers know. For those whose weak expertise cannot match the exigencies of the project, the deadlines virtually compel reports with fabricated results that conceal the failure of the research project.

### *A still limited and fluctuating base of authorities*

Relatively new fields like those found in interdisciplinary endeavors are still growing toward international maturity and standards. In the case of CALL, for example, the nature of the field involves rapidly changing hardware capabilities, shifting software platforms, and constantly evolving media trends. These very characteristics hinder the establishment of a broad and stable base of international experts who are able to follow the developments over longer periods and to monitor quality. Many of the CALL researchers of the 1970s and the 1980s are no longer active in the field, either because they felt they could not keep up with the changes or because they failed to attract adequate funding and specialized staff—while inexperienced newcomers, but with a visionary rhetoric, succeed in landing new projects.

Moreover, many CALL researchers can deal with this subfield only as a side activity because their main academic commitment lies in related areas—literature, linguistics, methodology, teacher training, and so on. As a result, the field experiences a constant influx of newcomers who do not find enough helpful critical filters along the way to provide guidance, let alone sufficient academic training over several years. How many universities offer students a balanced and constantly updated program in

educational technology and language learning? No doubt the same applies to comparable new subfields.

These remarks are certainly not meant to disparage the limited group of present-day CALL authorities. Some of those pioneers have been involved in the field for more than two decades, answering the challenges of change and motivating scores of new researchers. But their number remains relatively small. Some lack the courage to reprimand and censure the “instant experts,” because they need them as members of their organizations, as subscribers to their journals, or as paying participants at their conferences.

In conclusion, new interdisciplinary fields are at high risk of academic misconduct. By their very nature, they easily attract new and inexperienced researchers from various backgrounds. It is clear that such new fields need thorough and high-quality research to structure and strengthen their performance and evaluation standards and to become more credible among related fields.

#### **1.4.8 The Internet**

From its inception in 1969 until the early 1990s, the Internet functioned as the scientific exchange route for a limited number of privileged researchers. Since the mid-1990s, its explosive growth—one of the major social phenomena of our time—has expanded its capabilities to virtually everyone who has access to a computer.

The advantages of the Internet for education and research are many. But ironically, it is precisely in education that one of its dark sides has become apparent. The ease by which material can be collected from the Internet has become a major threat to the integrity of scientific production. Students facing deadlines with their term papers fall prey, not only to the temptation of pasting into their work the bounteous material they can easily find, but also of surfing to a score of online term-paper providers, which have replaced the less accessible campus underground term-paper mills. The ease with which ready-made material can be retrieved has multiplied the problem of plagiarized papers, as bewildered and scandalized teachers have discovered (Atwal 1996; McCollum 1996; McLeod 1997; Rothenberg 1997). The matter has alarmed politicians like Senator Robert C. Byrd (1998). Some universities are suing the



Internet term-paper vendors (Basinger and McCollum 1997). However, because those actually misusing the material are not the providers but the students, such legal action is not likely to be successful (Guernsey 1998a).

The problems are not limited to class papers. Theses and dissertations, which usually only a small committee will ever read and even then sometimes rather superficially, can also be filled with material taken from the Internet. Fraudulent practices using computer technology also extend to established researchers, as a report of the Committee on Publication Ethics (COPE) indicates (Williams 1998). Nor is the phenomenon recent. As early as 1993, the American Association for the Advancement of Science, the National Conference of Lawyers and Scientists, and the Office of Research Integrity organized a conference titled “Plagiarism and the Theft of Ideas” in which the misuse of material taken from electronic journals and computer networks was a central item in the program (Wheeler 1993). Moreover, the problems associated with online misbehavior on campus encompass much broader copyright violations than just plagiarism (McCollum 1999).

However, the medium itself can also be used to detect plagiarism. Its capability of creating huge databases of potential source texts, combined with powerful comparison devices, makes it an ally in combating fraud (Marshall 1998a, 1998b; Wheeler 1993; see esp. discussion in section 2.3).

#### 1.4.9 Money

Researchers are occasionally—and probably now more than before—involved in marketing the results of their research through commercial outlets. They may purposefully shape research toward its commercial potential, a direction that may even be encouraged by the university itself as it creates university-business parks and funds organizations with avowed economic purposes. There is no misconduct here as long as established rules are being followed. Many technologically oriented universities and colleges have developed guidelines, sometimes tough and sometimes lax, for the proper relations between industry and academia.

But the situation carries within it the seeds for conflicts of interests and for improprieties. Faculty entrepreneurship leads to using the research unit for personal gain, even within legal boundaries. Competition

encourages researchers to assert unproven scientific statements for promotional purposes. Popular publicity for products developed in academia can easily misrepresent the research or its consequences; invariably, it uses the credibility of scientific research for its own credibility. These improprieties are only verbal. More serious is manipulating research data to prove the excellence of the product developed. This well-known problem in university-industry relationships has been treated in many publications (see, e.g., Blumenthal 1992; Campbell, Daza, and Slaughter 1999; Fassin 1991; Peters and Etzkowitz 1990; Ziman 1998). It is the focus of such organizations as the Center for Science in the Public Interest (CSPI), with their “Integrity in Science” project (Blumenstyk 2001). Though it concerns biomedical research, the following statement also has validity for other fields: “One major reason for concern is that if faculty members are profiting financially from their research either through royalties from, or as investors in, companies that market products based on their discoveries, the outcome or direction of their work may be affected. They might, for instance, be tempted (consciously or unconsciously) to design studies that are more likely than not to have an outcome favorable to the product” (Cho 1997).

But not only commercialization favoring the individual researcher and the industry may be at stake. Universities are also sensitive to the ongoing need for extra income. Financial overhead or “the contribution by projects to indirect costs” may therefore be another factor in a growing ethical laxity toward professors who generate money for the university. In an academic environment where regular public financing is diminishing or harder to obtain, university administrators welcome significant external sources of income and highly respect the researchers able to generate them, since part of the funds supplement the university budget. The past decades have seen a dramatic increase of these funds. The importance of this new form of income alters the relations between the projects’ recipients and their supervisors—department chair, dean, university president. Faculty who can attract funding can often count on more privileges and less control. The quality of the research performed in such projects becomes less important than the hard cash they bring in. If questions of academic misconduct arise, a number of cases show that influential project directors are more likely to be protected and defended by the

administration, especially if the institution is at risk of having to reimburse allocated funds. Harsh economical considerations overshadow moral scruples.

#### 1.4.10 Project accounting as a fraudulent environment

“I have some project money left over to buy that” is a sentence very few professors have moral scruples with, even if the item to be purchased has nothing to do with the project. While most would balk at using the money for a personal purchase, they see nothing particularly wrong with applying it to another project or using it in the research unit in general. A vague or ingenuous description on the purchase order and the invoice is seldom questioned. However, if these administrative forms must accompany the project’s final report, the professor may be put in the ethically awkward position of having to justify the purchase, even by lying about it. The reality that this involves forging official documents does not even cross the individual’s mind. The practice is so frequent that it is considered standard. Thus, it has become symptomatic of much broader arrangements that are common in academia, as I have witnessed them in Europe.

For example, a project’s budget includes three full-time assistants. All three are hired, but only two actually work on the specified project; the third is kept busy with other assignments. As another example, a research project has produced some side results that have not yet been published. Why not obtain funding for a new project on which those results can be used after an invented, later completion? Technically, and even legally, such practices are fraudulent, but many in the profession consider them normal, even “clever” ways of generating money, building financial reserves, and bridging employment from one project to another. It is not unusual to hear scientists talk in private in self-congratulatory tones about their unconventional accounting practices.

And indeed, why would a scientist at the lower end of the funding hierarchy feel the pinch of conscience about such arrangements? These “clever” forms of accounting exist at higher levels in university administration and have become part of the “normal” system. Large sums are quietly transferred from one project to another before a deadline would require forfeiture of the unused portion. A central administrator at the

university suggests that a research assistant in the English department, where the funds are exhausted, be put on the payroll of a project in the chemistry department, a favor reciprocated at a later date. Many scientists feel perfectly justified in carrying out these schemes because otherwise, in their opinion, academic research would simply be not viable. Arguments are couched in terms of the “short-sightedness of the government,” the “bureaucratic regulations of the funding agency,” the “irresponsibly diminished budgeting for this project,” the “strangling overhead,” and so on. All these arguments basically are variations of one: the higher end, science, justifies the means.

For the purposes of my discussion, the relevant question is the extent to which this pervasive atmosphere influences the propriety of research methods and reporting *per se*. Are professors as lenient in their methods and data as in their accounting? Young researchers, plunged into this atmosphere, may become confused about the limits between permissive accounting and permissive research. Inquiries focusing on the researcher’s ethical perceptions of both forms of permissiveness are badly needed to probe this area of academic misconduct.

## 1.5 Countering and curing

Against all these negative trends stands a public demand for ethical conduct in public life. During the past few years and in many countries, this demand has led to the creation of tighter guidelines to foster research integrity and of procedures for dealing with cases of suspected academic misconduct.

The decade between about 1985 and 1995 was a painful one in this regard. Several spectacular cases of alleged misconduct in various disciplines were widely publicized in almost every Western country where free speech permits, and a free press publicizes, accusations and defense. In the United States, Jeff Williams, Ned Feder, and Walter W. Stewart led the charge as whistle-blowers on several celebrated cases. The stories include attempted cover-ups, contradictory conclusions, manipulations, pressures, retaliation, dismissal, demolished careers, and broken lives.

The involvement of government officials, both elected and appointed, generated official investigations and the creation of bureaus and procedures to enforce fair treatment of both whistle-blowers and defendants.

The American Office of Scientific Integrity, created in 1989, was renamed the Office of Research Integrity in 1992 (for a history of this important institution, see Pascal 1999). That same year saw the constitution of the Danish Committee on Scientific Dishonesty. The Dutch Royal Academy instituted the Advies Commissie Wetenschap en Ethiek in 1993. The French Centre National de la Recherche Scientifique created the Comité d'éthique pour les sciences in 1994, with a broader scope than the traditional biomedical concerns. Similar agencies exist in many other countries.

These developments occur in a wider democratic context of government accountability, where citizens have ways to report alleged ill treatment and wrongdoing by officials. Nearly all respected scientific institutions and organizations have codes of ethics that define professional obligations and expectations and that condemn in more or less precise terms various forms of misconduct. Many of these codes have been updated with provisions designed to cope with troublesome recent developments. At the same time, various national scientific organizations have been organizing special committees and/or revamping their regulations.

In 1997 the Committee on Publication Ethics (COPE) was organized by the editors of nine scientific journals to control publication misconduct more systematically. It began by calling a meeting with more than 100 other editors from which clearer guidelines and a consensus for proceeding emerged (Williams 1997). COPE also called on governments to strengthen funding and evaluation procedures to deal with such misconduct. One of the problems COPE identified was that articles originally published in prominent Western journals were being plagiarized and published in less visible publications.

In April 2000, a conference sponsored by the American Association for the Advancement of Science and by the Office of Research Integrity called on scientific societies to play a stronger role in educating their members about academic integrity and in taking more extensive measures to deter misconduct. This conference issued a call to conduct more research about the causes of misconduct, to find ways to attack the problems at their root, and to provide better protection for whistle-blowers (Brainard 2000b; DuMez 2000).

The very emergence of this extensive professional and public reaction is a response to scandals that have rocked the academic community and to the growing threat posed by new circumstances that facilitate

misconduct. Readers of this book who have never experienced such events in their own environment may wonder if conditions are really all that serious. The fact is that, wherever it occurs, the damage is considerable and long lasting. And it can occur suddenly, anywhere. Furthermore, the fact that “it hasn’t happened here” does not actually mean that such misconduct has not happened. It may merely mean that such dishonesty has either remained undiscovered or that it has not become public knowledge.

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The references contain some sources not cited in the text.

I accessed a number of documents on the Internet, coding them with “(I)” after the citation. This explains the lack of a page reference for some documents, in particular those in html-formats. In the text such references are given with the year of publication, followed by “I,” for example, (1996:I). If the Internet reference mentioned the page numbers of the original publication, they have been included in my reference as well. I do not give the URL because it may no longer be valid by the time the reader consults it. In many cases the reference points to well-known journals that can be consulted online. In other cases, an Internet search using key words from the reference’s title should lead to the new URL if the material is still available online. In any case, the citation provides sufficient information about the original publication. In a few less obvious cases, I have included the general URL.

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