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Recycling Texts or Stealing Time?: Plagiarism, Authorship, and Credit in Science

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Abstract: Scientific plagiarism is as sui generis as the author function in science. A study of the specificity of scientific plagiarism and the ways in which it diverges from appropriation in other disciplines allows us to question traditional definitions that focus on the copying of published copyrighted materials. The form of plagiarism that is most damaging to scientists does not involve publications, is largely outside the scope of copyright law, and is unlikely to be detected by textual-similarity algorithms. The same features that make this kind of plagiarism difficult to identify and control also provide a powerful window on the unique construction of authorial credit in science, the problems of peer review, and the limitations of plagiarism surveillance technologies.

> It was owing to the Modesty and Diffidence of Sir *Isaac Newton*, that he communicated some of his Discoveries to his Friends, before he published them. Unfortunately they came in the Hands of a Foreigner, who contested the Invention. In what Court of Justice could have Sir *Isaac* instituted a Suit for a Reparation of this Injury? I will endure to affirm that he could have had no Redress in any Court either ancient or modern, where it was to have been determined on the Principle of other Property.
>
> —Anonymous, 1762[1]

Written during the early English debates on copyright law, these lines about Leibniz' alleged plagiarism of Newton's invention of calculus demonstrate that the difficulty of legally codifying plagiarism and the punishment it ought to receive were

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already clear in 1762.[2] Little progress has been made in the subsequent 250 years, which is an interesting piece of evidence in and of itself. Intellectual property law has undergone extraordinary articulation since then, but plagiarism is still lacking a consistent conceptualization despite surfacing more frequently, and getting a great deal of attention, in more locations and professions than ever before.[3]

The remarkable gap between the discursive articulation of intellectual property and that of plagiarism puzzles and interests me. Does that mean that the conceptual building blocks of intellectual property and plagiarism enable very different degrees of discursive articulation? Or does the persistence and ubiquity of accusations of plagiarism point to an altogether different regime for attaching value to creative work—a regime that remains active today, if only with its visibility eclipsed by the remarkable development and diffusion of intellectual property? In other words, is the discourse of plagiarism the remnant of an older way of conceptualizing the relationship between author and work—a discourse that is now left to inhabit the margins of intellectual property law? If so, plagiarism would not be alone there as those borderlands are densely populated by a range of different authorship constructs established not by legal statute but through professional and sociocultural conventions. Beyond the vast morphological differences in the way scientists, comedians, academics, chefs, and magicians construe authorship, we see that they all try to escape (and sometime oppose) the logic of intellectual property law.[4] While the discourse of plagiarism does not offer an affirmative and alternative definition of authorship, it shares in the externality to intellectual property that characterizes these other authorship regimes.

Comparative analyses of authorship have shown that the author, far from being a stable construct, changes across time and fields, and that it is tied to the work by a relation of co-construction rather than unidirectional cause and effect.[5] Authorship in literature or other works protected by copyright law is quite different from scientific or academic authorship, which in turn is different from inventorship as construed by patent law. Licenses based on the free software model support yet other forms of authorship, as do the sociabilities reflected in fanzines' production.[6] The "plagiarist function" varies across disciplines as well, depending on a field's subject matter and the changing protocols and technologies of detection. As we will see, plagiarism in science (the subject of the second half of this essay) is qualitatively different from the way it is defined by the Modern Language Association or by the American Historical Society.[7]

I take the elusive shapes of plagiarism (both its variability across fields and the absence of a definition able to comprehend all such varieties) to be a predicament to think with. Plagiarism matches the complexity of its twin concept—authorship—and may thus be used as a window on the puzzlingly different ways in which the author is constructed in and around the law, its relation to both property and personhood, law and social norms, as well as on the tensions underpinning fundamental distinctions between ideas and expression and, ultimately, between tangible and intangible property.

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IT IS ALL VERY PERSONAL, IN ALL SORTS OF WAYS

Plagiarism is one of those notions that are stabilized by the emotions they express and elicit rather than by their conceptual clarity. Lacking a reliably applicable definition of plagiarism, the various uses of the term are unified (to the extent that they can be unified) by being about actions deemed to range from the unethical to the immoral. Moral condemnation is inherent in the very term itself (plagiarism deriving from *plagiarius*, Latin for "kidnapper") as well as in the invocations of "pillage" and "rape" encountered in plagiarism allegations.[8]

Unlike piracy (the unauthorized copying and selling of, say, a *Pirates of the Caribbean* DVD), or passing-off (attaching the label "Prada" to a Prada-looking bag you have made in your garage), plagiarism is described in a standard dictionary definition as a very specific form of appropriation without attribution:

> To steal and pass off (the ideas or words of another) *as one's own*; use (a created production) without crediting the source; to commit literary theft; present as new and original an idea or product derived from an existing source.[9]

Piracy may hurt the author financially, but does not take away her authorship. A pirated Lady Gaga CD is still attributed to Lady Gaga because maintaining that association is crucial to the market value of the pirated copy. Passing-off, in fact, attributes even more authorship to the producer of the appropriated item—you attribute to Prada a bag they never made—though that would be a gift of authorship the Prada people would reject as damaging to their brand. Plagiarism, instead, severs the link between the work and the name of the author and then reestablishes it with a different name.[10] The success of both pirates and those engaging in passing-off depends on their ability to erase the traces of their agency. To the contrary, plagiarists need to erase the agency and name of the original author, and put theirs in its place.[11]

Unlike piracy whose typical goal is to make money for the pirate, plagiarism may be practiced to seek advantages that are not inherently or immediately financial, like for example, importing somebody's moving speech or sermon into your own speech or sermon without acknowledgment, or producing a term paper by lifting paragraphs from other authors' texts.[12] And while the typical pirate makes and sells as many copies as possible, it may be enough for the plagiarist to make only one copy and use it him- or herself. A student might cut-and-paste a paper from somebody else's texts he or she finds on the web but does not need to multiply them. All is needed is a single copy to turn in at the end of the class to get a grade. (These quantitative differences are worth noticing because they imply qualitative differences: The meaning of "to copy" is not the same in the case of plagiarism, passing-off, piracy, or other kinds of intellectual property infringements.) Finally, one may engage in industrial espionage or manufacture knockoffs of valuable fashion items on behalf of somebody else, but the kind of acts that are usu-

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ally referred to as plagiarism are appropriations to oneself and for oneself, and are typically done by somebody acting alone.

We could say that plagiarism is a form of reverse impersonation. The plagiarist does not want to become the person he or she plagiarizes, but rather tries to turn something that was personal to that individual—an idea, a speech, an autobiographical narrative, a piece of expressive work—into something that becomes personally associated with the plagiarist (because he or she publishes it under his or her name). It may even become part of his or her persona if he or she delivers it with his or her voice, accent, and intonation, or reworks it in his or her own language and style. The *personal* nature of plagiarism is even more evident when it concerns somebody's autobiographical narrative, which then becomes part of the plagiarist's life story.[13] The plagiarist does not become or want to become the person he or she plagiarizes—to lose him- or herself in the original author, so to speak. Rather, he or she tries to incorporate something of the plagiarized by performing those facets of that person as him- or herself (rather than the other way around, that is, acting the plagiarized as themselves).

Plagiarism feels personal not only because it is perceived to take something personal away from the author, but also because it involves a personal decision on the part of the plagiarist. An inventor may involuntarily infringe on a patent he or she did not know about, and a writer may infringe on the copyright of a text he or she had no clear memory of. But it would be difficult to conceive of the verbatim lifting of substantial amounts of an author's text and its representation as one's own as an involuntary action.[14]

The plagiarist's choice is personal also in the sense that the plagiarized work cannot be separated from some features of the plagiarized author. Successful plagiarism is undetected plagiarism, and the chances of being detected increase with the fame of the plagiarized source relative to the plagiarist's audience. Adding insult to injury, being plagiarized may be a sign of one's relative lack of visibility at that specific time and place—something Pierre Bayle spelled out as early as 1697:

> I believe all Authors agree on this Maxim, that it is better to rob the Ancients than the Moderns; and that amongst the latter, we ought rather to spare our Countrymen than Strangers. Literary piracy is not in all things like to that of Privateers. The latter think themselves less criminal when they commit their Piracies in the New World, than [if] they did it in Europe. Authors, on the contrary, go more boldly a[t] privateering in the Old World, and have Reason to hope they will be commended for the Prize they shall make in it. [. . .] All Plagiaries, when it is in their Power, follow the Plan of the Distinction I have alleged; not out of a scruple of conscience: *but rather that they may not be found out*.[15]

This looks like the inverse of Robert Merton's "Matthew effect"—the more successful a scientist becomes, the more credit he or she receives for achievements he or she has not achieved.[16] (Margaret Rossiter has discussed the gendered counterpart of this dynamics as the "Matilda effect.")[17] With plagiarism, the less you are known in a certain place the more likely you are of being plagiarized there, not so

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much because you have less authority to go up against the plagiarist, but rather because fewer people are likely to notice that you have been plagiarized. Fame, however, does not necessarily provide protection either. If you are well known in your area, the plagiarist may republish your work in a different country, in a different language, or both.

Plagiarism, therefore, is more than just a plain appropriation but often involves a displacement and recirculation of the plagiarized work in new different communities—a feature already implicit in the etymology linking plagiarism to kidnapping. Several cases of plagiarism in nineteenth-century science, for example, involved "recycling" texts across European countries, or between Europe and the United States.[18] Today we see the same between East and West, or between the Anglophone world and other languages.[19] The plagiarist tends to import relatively unknown foreign authors (or re-import forgotten ones) into a given publication network, or export a well-known author to places and audiences where he or she is not well known. (Often the recycling takes place within the same publication sphere—say, Anglophone science journals—by moving an article from a top-tier journal to a third-tier one, where few, if any, readers would notice it.) Plagiarism hinges on republication, but republication is also the key to the plagiarist's demise.

Not all forms of appropriation entail publication. You may infringe on a patent or gain unlawful access to trade secrets in order to use that knowledge privately in your laboratory, factory, or garage. But because plagiarism functions like authorship, you can only gain from it by publishing or publicly delivering somebody else's work and, most importantly, *attaching your name to it*. (People who knock off Prada bags do not put their name on them, nor do those who sell or distribute pirated films.[20]) Paradoxically, as a plagiarist you have to turn yourself into a clearly visible sitting duck while hoping that nobody is carrying a gun, cannot aim it properly, or are too far away to get you. Conversely, plagiarism without publication does not qualify as plagiarism. If you make a verbatim manuscript copy of Joyce's *Ulysses* and tell your family that it is your brilliant new novel that you cannot publish because the world is not ready for it, they will probably call you something, but not a plagiarist.

Plagiarism, in sum, is personal both from the point of view of the plagiarized (who feels personally singled out and robbed—*robbed publicly*) and the plagiarist (who may have no personal animosity toward the plagiarized, and yet needs to choose his or her sources carefully to minimize the chance of detection). The plagiarist always targets not only a work *but a work and an author at the same time*.

CONCEPTUAL KIN: PLAGIARISM AND SCIENTIFIC AUTHORSHIP

The relation between author and work in science bears important similarities to the way the author is construed by the discourse of plagiarism. Unlike copyright and patent law, scientific authorship construes credit in terms of attribution, not

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property—credit that accrues on a scientist's name, not in his or her pockets. By publishing in journals or conference abstracts, a scientist places his or her claims in the public domain and receives back professional recognition, first by adding the publication to his or her bibliography, and second by collecting citations from peers. This professional recognition can translate into financial resources (well-published, visible scientists are more likely to get jobs and grants), but is not a monetary or property construct per se. It is also a kind of credit that is distinctly personal, to the point of being inalienable.

While it may be advantageous for writers to sell the film rights of their novels to Hollywood studios, what sense would it make for scientists to sell their rights of their discovery after having published it under their names? Assuming there was a way in which Darwin could have sold the rights in his discovery of evolution to John Doe after publishing the *Origins*, what would John Doe have gained from that? How could he claim credit for something everybody knew to have already been discovered by Darwin? Scientific authorship is very personal for many of the same reasons that make plagiarism personal. It construes credit (or, in plagiarism's case, damage) as inalienable and qualitative, something that concerns an individual as a name-carrying person, not a proprietor.[21]

The analogies continue. While a scientific article is protected by copyright, what makes that text important to its author is not what copyright law protects in that text—the *personal expression* of its author, that is, the literary form of that article or the specific look of its diagrams and illustrations. Scientific credit is about content (the claim, the idea, the results, the techniques) not the form. Some scientists can patent their work when it falls within the legal definition of patentable subject matter, but that is a different credit regime based on the utility of the marketable products stemming from that work, which is quite separate from—and potentially in conflict with—that of scientific publications. The kind of credit generated by scientific authorship is categorically distinct from the rights granted by either copyright or patent law. The core element of scientific authorship is attribution—the professional rewards (not the property rights) that grow from the relation between the text and the author's name. This probably makes plagiarism the most dangerous kind of appropriation in the sciences. The appropriation of a scientist's work damages the scientist not as copyright infringement would damage a literary author but rather the way plagiarism would damage an author's name and reputation by denying the author attribution, not just royalties. Prosecuting a scientific plagiarist for copyright infringement would be like going after Al Capone for tax evasion.

There are, however, some relevant differences in the author function as construed by scientific authorship and plagiarism. For one, scientific plagiarism comprehends a wider range of objects than "normal" plagiarism, which was quite capacious to begin with. The current definition published in the *Federal Register* in May 2005 defines it as: "the appropriation of another person's ideas, processes, results, or words without giving appropriate credit."[22] Processes, and results (or

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data) are not found in dictionary definitions of plagiarism. Also notice that the *Federal Register* lists ideas first and words last, confirming that a scientist's work's value attaches primarily to ideas, techniques, and the design of the study or experiment rather than to the words that describe them. This also suggests that the detection of textual similarity in scientific publications may not capture the more damaging forms of plagiarism.

Another important difference between scientific and literary texts is that while a novel or a poem is a novel or a poem from beginning to end, a science article is made up of very different sections that, while all necessary and often required, have very different value and reflect different levels of authorial agency, labor, and originality. This is not how investigators and agencies involved with defining and prosecuting scientific misconduct typically see things. Like copyright lawyers who see an article like a unitary "work," they do not differentiate between the various sections of a scientific text, thus treating plagiarism of any part of it as equally unacceptable. Some scientists, instead, do not see the literature review section as valuable—and certainly not as original—as the sections reporting and discussing the results. A recent poll of Brazilian scientists, for example, found that: "although our participants unanimously regarded the use of the ideas and data of other researchers as wrong, *they had mixed opinions about using passages of text*."[23]

This is where the politics of language and the divide between Global North and South intersect with discussions of plagiarism. The most common form of plagiarism in science involves nonnative English speakers recycling portions of articles (like the literature review section) published in Anglophone journals.[24] Commenting on recent cases of plagiarism in China, Peking University officials have reported that:

> Some Chinese scientists think that they can't compete equally in Western journals because of a problem with English. So they like to copy what others have done and then fill in what is new. . . . To many people, what was done is not considered an aberration but part of an attitude that says it's OK to copy as long as you've done the work yourself.[25]

As shown by Ihsan Yilmaz, a Turkish physicist accused of plagiarism, a typical defense is that there is an implicit editorial bias in the Anglophone publishing world against less than smoothly written manuscripts which hurts smart and hard-working foreigners the most:

> Borrowing sentences in the part of a paper that simply helps to better introduce the problem should not be seen as plagiarism. Even if our introductions are not entirely original, our results are—and these are the most important part of any scientific paper. In the current climate of "publish or perish," we are under pressure to publish our findings along with an introduction that reads well enough for the paper to be published and read, so that our research will be noticed and inspire further work.[26]

No matter what side one picks in these debates, in science the content of the claim trumps the importance of its literary expression and that there is a distinctly non-

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uniform distribution of value over the various tranches of a scientific text (the literature review is not considered as *authorial* as the results and their discussion). This constitutes a "bell curve of authorship" that neither copyright law nor blunt-edged definitions of plagiarism and textual similarity algorithms can address or easily adapt to.

STEALING TIME, NOT TEXT

That said, the main difference between authorship and plagiarism in science compared to other fields has to do with *priority*. Scientific credit goes to the person who makes new claims and publishes them first.[27] However independently achieved, a major discovery made public shortly after somebody else has published it carries very little credit to the second scientist (unless the second scientist comes to be recognized as the one who "worked out" the insight of the first).[28] The history of science is littered with bitter priority disputes, which are as distinctive to science as patent infringement cases are to industry. Furthermore, as shown by the quote at the beginning of this article, accusations of plagiarism are quite common among scientists as they try to establish their priority, or contest that of their opponent.

Setting aside questions about the specific validity of such allegations, it makes a lot of sense to see them emerge during priority disputes, and not only because accusing a competitor of plagiarism is an effective move to impeach their priority claim. Given the crucial relation between credit and priority in science, the plagiarism that hurts the most is one that deprives a scientist of his or her priority. That is, not a plagiarism that appropriates a published claim, but one that takes it *before the author can publish it*.

This is supported by empirical findings of scientific misconduct. Data by the Office of Research Integrity (ORI), which is in charge of misconduct investigations at the U.S. Department of Health and Human Services, shows that the majority of cases of plagiarism in U.S. biomedicine between 1992 and 2006 involve the peer review process of manuscripts and grant applications, not printed articles.[29] Furthermore, these cases typically involve the plagiarism of ideas, research questions, and protocols. A typical scenario of this kind of plagiarism is described in a case investigated by the National Science Foundation (NSF) Office of Inspector General:

> "*Professor Reviews Proposal for NSF, Then Plagiarizes from It into His Own Proposal.*" Our inquiry into a significant allegation of plagiarism confirmed that a proposal by a professor at an Oregon university contained extensive sections of text and multiple figures duplicated from an earlier proposal that NSF had asked the professor to review.[30]

Similarly, ORI's Alan Price, who has reviewed all plagiarism cases investigated by his office through 2006, comments that

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> All but 1 of these 8 ORI cases of solely plagiarism [as distinct from cases concerning plagiarism mixed with other misconduct] involved the copying of words and/or ideas in [National Institutes of Health] grant applications, detected by a reviewer, who was in most cases the original applicant whose own grant application to NIH (or to the NSF), or the original author whose own publication, had been plagiarized; they just happened to become a reviewer for NIH or NSF of the questioned application and then reported the plagiarism to agency officials.[31]

The predominance of plagiarism cases involving grant applications (or manuscripts submitted for publication[32]) is striking, and the fact that they were reported to the ORI mostly by the plagiarized scientists themselves (who happened to review the application or manuscript) suggests that there may be considerably more cases that go undetected because they are reviewed by referees who do not have the same in-depth knowledge of the plagiarized sources. There seems to be widespread knowledge of and concern about this kind of appropriation within the scientific community. Interviewed during a survey of scientists' opinions about professional misconduct, a participant reported that:

> I'm always wary of submitting grants to study sections, because those people who sit on the study sections, it's not unknown for them to take your ideas, kill your grant, and then take and do it. And I think all of us have either had that happen to them or know somebody who had that happen to them.[33]

Appropriating somebody's claim after it has already been published in a high-visibility journal is, instead, a game with little gain for the plagiarist and relatively little damage to the plagiarized. It is a bit like pirating a Prada bag after it has gone out of fashion, and to sell it to people who do not know better.[34] It is also an easier kind of plagiarism to pursue, thanks to textual similarity algorithms.

Not so the plagiarism of proposals or manuscripts. As indicated by the last quote, if the reviewer-plagiarist is a competitor (which is likely to be the case, given that direct competitors have the most expertise in the application's specific field and may thus be asked to function as referees), he might give it a bad rating to try to have the grant denied and the project delayed or stalled. That gives the plagiarist time to put together a competing application or, if he or she has already the necessary resources, pursue the plagiarized research project right away. Furthermore, by plagiarizing an idea or project when it is still in a developing stage, he or she could cover his or her tracks by doing some additional work on the proposal and further articulate it.[35] Going back to the early image of plagiarism as child kidnapping, we could say that in this case the *young work* would *grow up* as the plagiarist's own.

What a scientist loses to this kind of plagiarism is not a work or product but the *potential* of making one and gaining priority credit for it. It may therefore foreclose that scientist's opportunity of having a certain career based on the recognition that work might have engendered. It takes away possible futures, not the

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credit for past work. If plagiarism is about stealing, then this one is about stealing time.

IMPORT, HIDE, OR BOTH

The plagiarism of scientific publications (as distinct from that of grant applications or manuscripts) does occur, and is in fact the main, if not exclusive, object of software-based studies of plagiarism in science. It is telling, however, that few scientists are reporting this kind of plagiarism to the ORI, even though recent studies indicate that about 10% of the polled scientists report direct knowledge of plagiarism.[36] The different response and concern that scientists show toward the plagiarism of unpublished material compared to that of published articles is not surprising given the crucial relationship between credit and priority, rather than simply between credit and publication as found in other fields. Unless the plagiarized article manages to come out ahead of the original one (which, most likely, could happen only if the plagiarist was the peer reviewer of the manuscript), or is published in a higher impact journal than the one the original author could have published it in, the plagiarized text is not likely to cause significant professional damage to the legitimate author.[37] Among the documented responses to plagiarism of scientific publications we find surprise (93% of plagiarized scientists are unaware of it), some anger, some sense of humor, abundant disdain for the plagiarists, and disappointment with the performance of peer review, but not remarks that one's career has been damaged or could have been different had the plagiarism never happened.[38]

Still, the plagiarism of scientific publications is quite interesting precisely because it is an altogether different species of misconduct compared to the plagiarism of unpublished grant applications and article manuscripts. And while it clearly displays the import-export traits of scholarly authorship already described by Bayle in 1697, it also adds a new and interesting twist to the genre. In the model discussed by Bayle, the plagiarist tried to avoid detection by appropriating ancient texts few knew or remembered, and then fearlessly maximizing the visibility of his or her own derivative text. That is the plagiarist's best-case scenario: You can show off your plagiarized work and reap all the credit you possibly can because the chances of being found out are minimal.

Some plagiarism of published articles does indeed involve the importation of a significant work to a place where it is not yet known. One may plagiarize an article by a notable European scientist published in a notable European journal by translating it in a language few scientists read and republishing it in a venue outside of the Anglophone empire of science—a journal whose readers are not likely to read European science journals. This is a fairly safe option for a plagiarist. So-called translation plagiarism is hard to detect, but would gain you credit only in the relatively isolated niche where you are recirculating the translated plagiarized

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paper.[39] That could work if you are a young U.S.- or Euro-trained PhD trying to establish yourself as a player at home, pursuing a big-fish-in-a-small-pond strategy. If, however, you are trying to accelerate or consolidate your career closer to the center of the global community, you need to tweak Bayle's model.

While not many of your colleagues read distant languages and journals, they may be able to detect your plagiarism if you publish it in peer-reviewed Anglophone journals. The answer is "publish and hide." Not only hide your sources (as suggested by Bayle), but try to conceal your plagiarized publications too. If the plagiarism of unpublished materials is about "stealing time," the appropriation of published articles is about creating credit out of "invisible publications." The key element of this strategy is to republish in formally credible but low-impact-factor, peer-reviewed Anglophone journals—journals that are good enough to give you some credit when you add that publication to your vitae, and yet bad enough that they are unlikely to be read by your direct colleagues and competitors.[40] An additional safety measure is to publish on marginal topics in marginal journals.[41] If plagiarism can be said to be a secondary economy of authorship, this specific variety represents the lower tier of a secondary economy. Still, it is quite interesting for those interested in questions of authorship because of the way it implicitly redefines what a work is.

Ultimately, the text the plagiarist wants to claim credit for is his or her vitae rather than his or her plagiarized article. In this context, the latter becomes a device to improve the former. The vitae has typically few readers—the chair, the dean, the promotion committee—thus making it a relatively safe text compared to an article that could be potentially read (and even cited!) by an unsafely large number of people. The plagiarist's goal here is not to pursue the premium priority credit associated with original publications. Plagiarizing scientific publications is therefore radically different not only from the plagiarism of grant proposals but also from "normal" plagiarism like appropriating a sermon or speech and redelivering it as yours. The scientist who plagiarizes a published article does not want to show off the article to the world as if it was his or her own. He or she wants to show off a longer publication *list* to the dean.

This is a unique scenario, distinct from all kinds of plagiarism I know of, because it involves *three texts*, not two: the source article, the plagiarized article, and the resume. The latter is the raison d'être of the whole process of appropriation and (effaced) republication—not only the motive for it, but also its conditions of possibility. This strategy would not make sense if we take the resume out of the picture. If the plagiarist were to gain credit exclusively from his or her plagiarized articles (as distinct from the credit he or she would receive from a vitae made longer by those publications), the plagiarist would have to publish them in high-impact journals (to maximize credit from the publication). But that would likely lead to detection and demise. Conversely, if the plagiarist chose to avoid detection, he or she would then probably have to avoid publication, and thus plagiarism.

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The vitae allows the plagiarist to bypass this dilemma, enabling him or her to gain credit in a relatively safe fashion by publishing while not really publishing, that is, by publishing in a way that negates the traditional effects of publication: dissemination, reading, dialogue, and so forth. Because all that matters to the plagiarist is credit itself—an additional entry in his or her vitae rather than the claim whose trace that entry is—all the plagiarist needs is a publication *effect* or, even better, a publication event that is as invisible as possible and yet tangible enough to create the effect that there was a publication—a publication that would justify a new entry in the resume. The actions of somebody pursuing this specific kind of plagiarism amount as much to resume fabrication (a form of fraud) as to the plagiarism of an article, which is only a means to the former.

The logic of this whole strategy hinges on the relationship between a public text (the published article) and a more private one (the resume), and what can be moved (or, more importantly, what *cannot* be moved) from the former to the latter. In the eyes of the plagiarist, the beauty of the literary and institutional genre of the resume is that it is not supposed to contain the whole article but only a short and effectively content-free reference to it. Unless the plagiarist has not even bothered to modify the original article's title, his or her plagiarism would be undetectable on the basis of the resume alone. The culture of publish or perish provides plagiarists with more than motivation. The quantitative logic of professional evaluations construes the publication list as a work in and of itself (rather than simply a *record* of somebody's work); provides scientists with an incentive to plagiarize in order to feed their vitae; and helps them go undetected by focusing the evaluation process on a reading of their vitae rather than of the articles listed therein.

RECONFIGURING THE VICTIM, ELECTRONICALLY

Commentaries and policy proposals based on large-scale textual similarity studies are surprisingly silent about the crucial relation between scientific credit and priority and, consequently, about how different the damages of plagiarism of published texts are compared to that of unpublished texts and ideas. There is in fact little or no mention of unpublished texts plagiarized during the peer review process. Quantitative textual similarity studies seem to go for the low-laying fruits that can be picked up by their algorithms while skirting the more complex forms of appropriation that are not currently detectable with those technologies and yet of greater concern to scientists: the lifting of ideas, research techniques, funding proposals, or the denial of authorship. In a very recent (January 2012) series of eight interventions in the journal *Nature* on the subject of "How to Stop Plagiarism," only one mentioned plagiarism of ideas, acknowledging that is hardly captured by textual similarity algorithm.[42] As another commentator puts it, "little if any data exist on the plagiarism of ideas."[43]

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If most recent studies of scientific plagiarism focus on forms of appropriation that are not highly damaging to scientists, it is not just because of the limits of their heuristics. Their goals are distinctly different from those of the traditional victim-centered discourse of plagiarism focused on the harm done to an author by a plagiarist.[44] The new discourse of plagiarism does focus on detection, but largely to exemplify the power of these techniques as a surveillance system—a panopticon aimed at preventing future plagiarism. If concerns with general prevention have come to trump those for the damages suffered by plagiarized scientists, the characterization of the victim has changed too. In the past, it was assumed to be a specific individual author, but as will be seen below that figure is now being replaced with the "public"—generic nameless readers who are "deceived" when reading an article listing the wrong person as the author.[45] From the protection of authors and producers, we seem to have moved to that of readers or consumers.

Concerns with the protection of users are not without precedent in intellectual property law. While patents and copyrights are construed as tools to incentivize innovation and protect authors and inventors from the kind of appropriations that would deflate their inventive spirit, trademark law protects business and corporate brands partly because, we are told, protecting trademarks is in the consumers' best interest. Unless I can trust that the Coca-Cola logo that appears on the soft drink bottle I've just bought means that its content has been indeed produced by the Coca Cola Company or a legitimate licensee, my shopping experience could turn into a nightmare of incertitude. The justification of trademark protection based on the customers' best interests, however, is not easily applicable to scientific plagiarism. While one can imagine the damages that the passing off of brands and commercial products could cause to a customer (like paying a lot of money for a fake Rolex watch worth a fraction of a real one), it is difficult to pinpoint what kind of damages would result from the reader's confusion about the identity of a science article's author.[46]

Trademark law assumes that not all manufacturers produce and sell high-quality goods. Consequently, the trust a customer develops for a brand whose reliability and quality he or she comes to appreciate is something valuable to the customer and manufacturer alike. But the name of the author does not play the same quality assurance role in science. Contemporary science is quite adamant in presenting peer review as its primary quality control system.[47] Articles published in journals with good impact factor should be valuable and epistemically trustworthy no matter whose name appears on the byline. Peer review does not guarantee the truth of a scientist's claim, but it still tells the reader that the manuscript was audited and found sufficiently relevant and credible to warrant publication.

Furthermore, while plagiarism misrepresents the origin of a work, it does not amount to passing off—the kind of practice that trademark law is after. A peer-reviewed article that has been plagiarized and republished verbatim is not like a cheaply made fake Rolex, but rather the original product with a fake name on it. The packaging differs, but the epistemic value should be the same because the

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substantial part of the product is the same.[48] Given that people read science articles for their content and not because they make the readers look cool by associating them with the author's "brand," it is not clear what damage a reader would sustain from using a fully plagiarized peer-reviewed article. One could even say that a fully plagiarized article, if reprinted in a peer-reviewed journal, would have undergone two rounds of review, thus making it even more trustworthy.

Recent studies of plagiarized literature are on a sounder course when they point to financial costs (the republication of the same claims and data), the misuse of human resources (the time wasted by scientist to re-review, re-read, or re-check manuscripts and publications), or the unfair promotion of scientists based on publications they in fact did not author.[49] But they do not stop there, intimating that the damages of plagiarism spread further, affecting the trust between science and the society that supports it. Plagiarism makes scientists look like cheating students. Unless they know somebody is watching over their shoulders, scientists can no longer be expected to abide by the honor code:

> We find it odd that automated text-matching systems are used regularly by high schools and universities, thereby enabling us to hold our children up to a higher standard than we do our scientists. In our view, it would be fairly simple to fold these tools into electronic-manuscript submission systems, making it a ubiquitous aspect of the publication process.[50]

It may be useful to use software to compare manuscript submissions to different journals to detect possible similarities; the devil is not in the principle but in the details, that is, in how the detected similarities are interpreted and what kind of decisions are made based on those evaluations.[51] What is more interesting about this quote, however, is the language. The comparison between "our scientists" and "our children" casts both of them as in need of supervision from "us"—an undefined parental entity hovering above high schools, research universities, and federal labs. "We" trusted and funded the scientists, but they cheated us, like ungrateful children. Fortunately, we now have textual similarity software to stop them even before they publish. Although plagiarism is something that scientists do to other scientists, we—not the plagiarized scientists—are the victims.

But how big of a threat are we under? Recent statistics (cited in the textual-similarity algorithm literature) put the percentage of plagiarized articles between 0.04% and 0.2%—not reassuring, but not exactly panic-inducing either.[52] The call for the ubiquitous deployment of text-similarity algorithms is not, therefore, a response to a clear and imminent danger but more likely an attempt to create a larger market and demand for these techniques and the expertise that goes with them. The construction of so-called self-plagiarism is emblematic of this trend. When textual-similarity algorithms turned up relatively modest percentages of textually similar articles by different authors (that is, potentially plagiarized articles), they also detected a much higher percentage of similar texts published by the same authors (that is, articles in which authors reused parts—large or small—of other

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articles of theirs).[53] These publications, however, were not termed "duplicate publications" or "partially duplicate publications" (which indeed they are) but have been almost exclusively referred to as "self-plagiarism." This is a puzzling linguistic choice because, if plagiarism is defined as misappropriation, how can an author be said to steal what is already his or her own?[54] The only relation (and a merely phenomenological one) between plagiarism and duplicate publications is that they may be detected by the same technology in the same way a thermometer recording an elevated temperature in a patient's body may indicate both heat stroke and bubonic plague, and a variety of other unrelated conditions in between.

But instead of doing some qualitative homework to understand why scientists sometime republish their work and determine the conditions under which those practices may or may not be admissible, an assumption was made that there is no categorical difference between plagiarism and duplicate publication or between partially and fully duplicate publications, and that they are all unethical across the board.[55] Without in any way suggesting that it is unproblematic for an author to republish the same article under a different title, I believe that the newfangled notion of self-plagiarism is not an innocent, if remarkable, category mistake. Given that there are many more duplicate publications than potential plagiarized articles, mixing the apples of plagiarism with the oranges of self-plagiarism has created a significantly bigger target for textual similarity tools—one that can be better used to gain visibility and justify the urgency for further research.

MISCONDUCT STUDIES

Over the last few decades, scientific misconduct has moved from being addressed on an ad hoc basis, within local institutional contexts, and with limited transparency or concern with due process, to becoming the object of a new professional discourse jump-started by a first generation of self-trained experts responding to institutional concerns about misconduct, often in the form of high-profile cases of scientific fraud.[56] Science graduate students are now typically required to receive training on how to recognize and avoid misconduct—classes for which textbooks and case studies are now available. This growing field is anchored in institutions like ORI, which are increasingly emulated in other countries. They develop best practices for handling and prosecuting misconduct allegations; coordinate their efforts and jurisdictions with those of universities, journals, and various other stakeholders; articulate definitions; promote training; organize conferences; publish newsletters; post findings, and so forth. There is no doubt that if we now know a lot more about misconduct, and see a great deal more transparency in its control and prosecution, it is largely because of institutions like ORI and consortia of journal editors like the International Committee of Medical Journal Editors and World Association of Medical Editors, which share many of the ORI's concerns (or those of similar bodies within other federal fund-

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ing agencies) when it comes to misconduct. In sum, a new discipline has emerged, aimed at disciplining scientists to prevent misconduct.

The traditional discourse of plagiarism (especially literary plagiarism) with which I started this essay reflects the point of view of the plagiarized or of those speaking on his or her behalf. There was (and there still is) no institution in charge of literary plagiarism—the "Literary Court of Judicature" hypothesized in the opening quote. Intellectual property law, as we have seen, has not been able to take up that role either. Literary plagiarism has consequently remained largely confined to a regime of "private justice," narrated and acted in the first-person singular, deploying pointed fingers and shaming tactics. This is profoundly different from the new discourse on scientific plagiarism—a discourse that is not of the plagiarized or on behalf of the plagiarized but is articulated by new "plagiarism experts" who are charged (or self-charged) with developing academic studies of scientific misconduct on behalf of universities and the federal agencies who support them. In this new landscape, the generic taxpayer replaces the specific plagiarized scientist as the victim of plagiarism, which in turn becomes a ubiquitous threat rather than a specific local event. As suggested by the slippage between plagiarism and self-plagiarism found in so much of the recent literature, the very object of the new discourse may have changed as well.

The study and regulation of scientific misconduct are displaying most of the typical sociological traits of the professionalization process: institutionalization, standardization of training, certification of expertise, articulation of best practices, and so forth. But the expansion of the definition of plagiarism through the use of textual similarity software shows that this is more than an institutional affair. The development of plagiarism studies is crucially connected to the introduction of a technique—textual similarity algorithms—whose role goes well beyond their ability to produce more evidence of possible plagiarism, more quickly, by scanning an increasingly wider body of publications. These technologies are attributed the kind of objective protocols and methodologies that can give credibility to a new field by providing previously unavailable evidence while casting its production as free from qualitative personal biases. At the same time that the detection of plagiarism in science has largely ceased to be the victim's personal business,[57] it has been further depersonalized by being taken over by software. Produced by people more likely to have a background in bioinformatics than literary studies, textual similarity algorithms may provide plagiarism studies with their "DNA fingerprinting"—the kind of black-boxed evidence deemed to have lifted the field of forensics from a skilled art into a science.

Setting aside the very interesting shift in the disciplinary background of plagiarism experts from literature or philology to computer science, we see that the computerization of the detective's role and the marginalization of the individual plagiarized author from the picture goes hand in hand with a depersonalized and delocalized notion of evidence. The new technologies do not engage in fine-grained contextual (and therefore author- and plagiarist-specific) analyses of spe-

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cific plagiarism allegations, but in large-scale statistical studies. The combined effect of the development of misconduct studies and its reliance on textual similarity software has evacuated the individual—as victim, accuser, stakeholder, or detective—from the discourse of plagiarism. It is now objective in its methodologies but, no longer set in motion by specific people and grievances, it is also impersonal in its motives. These traits will be only enhanced when this kind of data mining becomes an automated and virtually autonomous system of detection and surveillance, designed by human actors but operating on its own, in a continuous fashion, according to its protocols.

The public was never construed as a stakeholder in the traditional discourse of plagiarism, and would not, I believe, have become part of the story without the advent of textual-similarity software. If it is difficult to pinpoint what exactly is the public on whose behalf this new discourse on scientific plagiarism is being developed, it may be because it is an empty name or, more precisely, a role emptied, and left empty, by the evacuation of the individual from this new discourse. Is it society? The readers? The government?[58] The journal editors? The science publishing business? The software providers? Given the proliferation of heterogeneous possible signifieds, this public may in fact be the name of an absence, the name of the default and yet undetermined stakeholder that the new surveillance discourse of plagiarism constructs for itself.

Changes in the discourse of plagiarism may provide an unexpected window on the complex transition from a disciplinary society to a society of control.[59] My concluding point, however, is a much simpler one, namely, that the new surveillance apparatus for plagiarism is doing a poor job at fulfilling the goals it has set for itself. The way they are currently developed and deployed, these technologies and their accompanying discourse are not particularly useful to the victims of scientific plagiarism or to any other easily identifiable stakeholder because they fail to provide evidence about the most damaging forms of misappropriation of scientific work—misappropriation of proposals and unpublished manuscripts, not publications. It misses the big target, blurs together the targets it can resolve (plagiarism and self-plagiarism), and cannot identify what is the public it is working for. A cross-eyed panopticon with identity issues.

ENDNOTES

1. Anonymous, *An Enquiry*, 36–37. Sometimes erroneously attributed to William Warburton, this text is discussed in Deazley, *On the Origin of the Right to Copy*, 149–67.

2. On this dispute between Newton and Leibniz see Hall, *Philosophers at War*.

3. The field-specific nature of plagiarism becomes quickly evident to anyone taking the time to compare definitions, thus suggesting that plagiarism is, at best, a discipline-based construct. However, a prominent scholar of plagiarism has argued that even if one looks at just one set of practices—"student cheating"—one can discern various forms of appropriations that make it virtually impossible to define plagiarism even in one specific field. As Moore Howard, *Standing in the Shadow*, 157, puts it: "The epistemological desire that propels us to attempt plagiarism regulations that would accom-

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plish neat definitions to be cleanly applied to all cases cannot be fulfilled. Textuality and authorship can never be fully articulated—much less regulated. They can only be enacted." Her website "Plagiarism: Some Sources on Attitudes, Definitions, and Detection Methods" ⟨http://wrt-howard.syr.edu/Bibs/PlagDefs.html⟩ is an important resource for anyone interested in plagiarism.

4. Loshin, "Secrets Revealed"; Oliar and Sprigman, "Intellectual Property Norms"; Fauchart and von Hippel, "Norms-Based Intellectual Property"; Biagioli, "Rights or Rewards?"

5. Foucault, "What is an Author?"

6. Kelty, "Inventing Copyleft"; Tushnet, "Payment in Credit." See also note 4 above.

7. Modern Language Association, *Statement of Professional Ethics*; American Historical Association, *Statement on Standards of Professional Conduct*. While both associations uphold broad definitions of plagiarism that include the appropriation of ideas, not just texts, the historians go further by including data and empirical findings on the list of the objects whose appropriation amounts to plagiarism.

8. On plagiarism as "pillage," see Randall, "Imperial Plagiarism," 132–35. On plagiarism as "rape" see Mallon, *Stolen Words*, 134, 164; and Moore Howard, "Sexuality, Textuality," 473–91. I discuss the figure of plagiarism as kidnapping in "A Crime of Kinship."

9. *Merriam-Webster's Collegiate Dictionary*, 870 (emphasis mine).

10. Both piracy and plagiarism are different from the most common form of trademark infringement—passing off—that involves attaching somebody else's brand or mark to a product made by somebody else like, say, using the Louis Vuitton logo for bags that may be similar but not identical in design and materials to those of Vuitton. Plagiarism, however, is conceptually similar to "reverse passing off," that is, the selling of somebody's product under a different brand, like buying Rolex watches and reselling them under the "Biagioli Watch" brand. This would not be a particularly smart business decision because in high-brand products the brand is more valuable than the product, but in the case of plagiarism the work is appropriated because of its use value to the plagiarist, not the value of the original "brand"—the author's name.

11. Failing to give attribution is not plagiarism in and of itself, but becomes so when one erases the first author's agency with the purpose of passing off the work as one's own.

12. See for instance the recent plagiarism by Senator Scott Brown of a speech by Elizabeth Dole. The lifting was not motivated by financial gain but by desire to find the "right" narrative for how Senator Brown came to develop certain positive personality traits as a youth—an image that was found in Ms. Dole's own story about such process, see "Scott Brown Accused of Plagiarism: Elizabeth Dole Remarks 'Lifted Verbatim' Update," *Huff Post Politics* ⟨http://www.huffingtonpost.com/2011/10/12/scott-brown-plagiarism-elizabeth-dole_n_1008139.html⟩. What was lifted was, literally, an autobiographical fragment, not a financially valuable text.

13. See the Brown-Dole case in note 12 above.

14. The typical defense against accusations of plagiarism is to acknowledge the facts (which, in the case of verbatim plagiarism, would be quite difficult to refute) and then blame an associate for the appropriation: a research assistant, a collaborator, or, in Senator Brown's case, a summer intern.

15. Bayle, *The Dictionary Historical and Critical*, 773–74 (sub vocem "Ephorus"). I have first encountered a partial citation of this passage in Randall, "Imperial Plagiarism," 133–34.

16. Merton, "The Matthew Effect in Science."

17. Rossiter, "The Matthew Matilda Effect." She articulated this construct by focusing on the second half of the passage that Merton quoted from the Gospel according to Matthew 13:12, "For whoever has, to him more shall be given, and he will have an abundance; but whoever does not have, even what he has shall be taken away from him." The "Matilda Effect" is explicitly gendered—Rossiter identifies men as the beneficiaries of the Matthew Effect and women as the victims of the Matilda Effect—which is different from the more gender-neutral plagiarism scenarios that concern me here. Still, some of the patterns of invisibility behind the Matilda Effect are similar to those that enable plagiarism of distant or less visible sources.

18. LaFollette, *Stealing into Print*, 5–7.

19. For example, Xiguang and Lei, "Chinese Researchers Debate," 337: "Li Fubin, then a lecturer in physics at China Mining University at Xuzhou in eastern China's Jiangsu province. In his pursuit

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of promotion to associate professor, Li copied the whole text of a paper co-authored by a Turkish professor and an Italian scholar from a physics journal published in Italy. Li then submitted the copied article, under a new title, to a Swiss physics journal, which published it in 1990."

20. There are liminal cases, however, when the brand name is tweaked to maintain a close association and yet signal some marginal difference in an attempt to stay clear of the law, like Proda bags, Sany electronics, or Bolivia (instead of Bulova) watches. Thanks to Berris Charnley for this.

21. The significant differences between scientific authorship and the way the author or inventor is construed in intellectual property law are discussed in Biagioli, "Rights or Rewards?"

22. *Federal Register*, 28386.

23. Vasconcelos et al, "Discussing Plagiarism in Latin American Science," 677.

24. Roig, "Plagiarism in the Sciences," 48.

25. Xiguang and Lei, "Chinese Researchers Debate," 337.

26. Yilmaz, "Plagiarism? No, We're just Borrowing," 658. On that case see Brumfiel, "Turkish Physicists," 8.

27. Merton, "Priorities in Scientific Discovery"; Schaffer, "Discoveries and the End of Natural Philosophy"; Biagioli, "From Ciphers to Confidentiality."

28. Wikipedia, "Hardy-Weinberg Principle." An example is the "Hardy-Weinberg" principle: "both allele and genotype frequencies in a population remain constant from generation to generation unless specific disturbing influences are introduced." Wilhelm Weinberg presented the principle in a lecture, in Germany, in 1908 shortly before it was "rediscovered" and published in English by Godfrey Harold Hardy. For several decades Hardy was given priority, but the principle was then credited to both scientists (despite the fact that Weinberg had never published it), when the near-simultaneity of the discovery was accepted. Although chronologically first to discover, Weinberg is now listed second, perhaps because, unlike Hardy, he did not go print.

29. Price, "Cases of Plagiarism." Price's article contains brief summaries of all plagiarism cases investigated by the ORI over this period, including the sanctions handed out. Thanks to Berris Charnley for this point, and for the many other useful comments.

30. National Science Foundation (NSF), "NSF/OIG Semiannual Report to Congress, September 2007-Investigations" http://www.nsf.gov/pubs/2007/oigSept2007/oigsemiannualsept2007_4.pdf, at p. 29.

31. Price, "Cases of Plagiarism," 49.

32. Plagiarism of article manuscripts during peer review is discussed in Rennie, "Plagiarism," 110–11, 117.

33. De Vries et al., "Normal Misbehavior," 47.

34. The analogy is not arbitrary because in both cases the plagiarist/pirate seeks credit in marginal and poorly informed markets.

35. That option would be difficult to pursue in the case of published work, by which time the plagiarist could do little more than paraphrase or translate it into a different language.

36. Garner, "Publication Integrity Quantified," 6. That not more scientists are aware of being plagiarized matches the evidence that plagiarized articles circulate in not so visible venues, otherwise the author or her collaborators and colleagues would be likely to notice them more frequently.

37. Errami and Garner, "A Tale of Two Citations," 399: "Unlike repeated publication by the same authors, simultaneous publication is rarely observed for duplicates that do not share authors [. . .] undoubtedly due to the fact that it is usually difficult to reuse someone else's work before it appears in print—unless the duplicating author also happens to have been a referee of the original."

38. Long et al., "Responding to Possible Plagiarism": see "Supporting Online Material: Supplement with Materials and Methods, Tables S1 to S5, References," 3–5 ⟨www.sciencemag.org/cgi/content/full/323/5919/1293/DC1⟩ accessed 24 July 2012.

39. Garner et al., "How to Stop Plagiarism," 23. Plagiarism-detecting software like Turnitin and iThenticate has recently added translation modules to detect plagiarism across linguistic boundaries, but the effectiveness of these new features remains unproven.

40. In general, duplicates [i.e., "self-plagiarized" articles] are often published in journals with lower impact factors (undoubtedly at least in part to minimize the odds of detection)." (Errami and Gar-

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ner, "Tale of Two Citations," 399). A Chinese scientist involved in the current anti-plagiarism campaign reported that: "Plagiarists often send their copied papers to second-rate journals, making their misdeeds harder to detect." (Xiguang and Lei, "Chinese Researchers Debate," 337). An investigation into plagiarism by a team of Turkish physicists reported: "the search has turned up 67 papers, about half of which have appeared in low-profile peer-reviewed? journals." (Brumfiel, "Turkish Physicists," 8). Also: "[. . .] we recorded the impact factors for each journal in which the 212 articles and their duplicates were published using the Thomson Scientific Journal Citation Reports feature. A large portion of the duplicates were published in low-profile journals; thus, impact factors were available for only 199 of the 285 different journals. The impact factors of journals publishing original articles were significantly higher ($P < 0.001$), averaging 3.87 and spanning 0.147 to 52.589, than those of the journals publishing duplicate articles, averaging 1.6 and spanning 0.272 to 6.25." (Long, Errami, George, Sun, Garner, "Responding to Possible Plagiarism," 1293.

41. Brumfiel, "Turkish Physicists," 8: "Many of the papers concern an obscure theory of gravity known as the Møller version of general relativity. Few people would be likely to check such work, allowing the students and professors to build their publication record without fear of being caught, says Ginsparg. 'They were following the optimal strategy.'"

42. Garner, "How to Stop Plagiarism," 22: "The unattributed rehashing of original ideas in an author's own words is much harder to detect. Consequently, we rely on a high-level peer-review process and careful editing to spot such plagiarism."

43. Roig, "Some Reflections on Plagiarism," 38.

44. Although it would be unfair to expect that one type of study could cover all aspects of plagiarism in science, it remains striking that, to the best of my knowledge, the issue of damage and redress to the plagiarized scientist is never mentioned in this literature—not even as a desideratum. This is even more curious given that, unlike most kinds of plagiarism where redress can be just primarily symbolic, the most damaging form of plagiarism in science—that of grant applications turned down because of fraudulently poor reports by the plagiarizing referee—could be substantially corrected by collecting the illegally claimed research funds from the plagiarist and redirecting them to the original applicant who deserved them.

45. It is not clear, however, whether such consumers are the scientists themselves, the journals, the universities, the funding agencies, the state, the taxpayers, or all or the above.

46. The only specific argument I have found (distinct from general claims that plagiarism erodes the trustworthiness of science in the eyes of the public) for the damages that may be produced by duplicate publication (either plagiarized or "self-plagiarized) is by Errami and Garner: "Duplication, particularly of the results of patient trials, can negatively affect the practice of medicine, as it can instill a false sense of confidence regarding the efficacy and safety of new drugs and procedures" ("Tale of Two Citations," 399). They do not, however, produce evidence that this scenario has actually materialized. Garner makes the same point elsewhere, citing the response of one author whose paper was found to be plagiarized: "'[My] major concern is that false data will lead to changes in surgical practice regarding procedures' was the response from one author whose plagiarized paper was found by the Déjà vu project. This author correctly pointed out that, as researchers and clinicians, we are guided by the literature, and if it is corrupt the results can be disastrous, affecting clinical decisions or research and career directions." (Garner, "Publication Integrity Quantified," 1). This is a possible scenario, but an imagined one. No evidence is provided to support this fear and no attempt is made to spell out how plagiarized claims equal "false data." The Déjà vu project is described in Errami, Sun, Long, George, and Garner "Déjà vu."

47. Biagioli, "From Book Censorship."

48. This would not amount to passing off (I sell you a cheaper article by disguising it as a high-quality one), but rather a case of reverse passing off, where I would sell you a top-brand item with a different logo on it.

49. Garner, "Publication Integrity Quantified," 1.

50. Errami and Garner, "A Tale of Two Citations," 399.

51. This is already happening, through the CrossCheck software used by various journal publishers like Elsevier, Taylor & Francis, Wiley-Blackwell, the British Medical Journal, and Nature Publishing.

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52. Errami and Garner, "A Tale of Two Citations," 397: "The study suggested a low number of suspected acts of plagiarism (0.2% of arXiv papers), but a much higher number of suspected duplicates with the same authors (10.5%). In 2002, an anonymous survey of 3247 U.S. biomedical researchers asking them to admit to questionable behavior revealed that 4.7% admitted to repeated publication of the same results and 1.4% to plagiarism" and "In recent work, we have used eTBLAST [a textual similarity algorithm] to search a subset of more than 62,000 Medline abstracts from the past 12 years to identify highly similar entries. The 421 potential duplicates found have been deposited in a publicly available database, Déjà vu, and after manual inspection were confirmed as duplicates with different authors (0.04%; based on inspection of full-text articles), or duplicates with the same authors (1.35%; based on inspection of the abstracts). The rate of false positives in this study was only 1%." I have not cited, in the body of my text, Errami and Garner's claim that 1.4% of the scientists polled in a 2002 study admitted to plagiarism because I believe they misunderstood the sources they cite. They refer to the results reported in Martinson et al., "Scientists Behaving Badly," 737, Table 1, showing an average 1.4% of positive answers to the question of whether scientists have used "another's ideas without obtaining permission or giving due credit." The study by Martinson and his colleagues was explicitly aimed at mapping the incidence of other forms of misconduct outside of the "normal" ones—fabrication, falsification, plagiarism. This means that the question about "using another's ideas without obtaining permission or giving due credit" is not about plagiarism of printed sources (which is, instead, the topic of Errami and Garner's "A Tale of Two Citations") but about the appropriation of ideas. What Martinson and colleagues are reporting is precisely the kind of plagiarism that cannot be easily detected by textual similarity algorithms, and is much closer to the plagiarism of unpublished sources that I discuss here. Martinson's data, in fact, shows that the frequency of idea plagiarism (1.4%) is substantially higher than the 0.2% textual plagiarism found in the arXiv study, and the 0.04% Errami and Garner found when they actually compared full-length articles rather than simply abstracts in "A Tale of Two Citations," 397.

53. Errami and Garner, "A Tale of Two Citations," 397.

54. Rennie, "Plagiarism," 102. ORI's Alan Price is among the few who point to the category-hopping performed by the notion of "self-plagiarism": "Plagiarism is appropriation of someone else's words, without giving proper credit. Self-plagiarism is really duplicate publication. [. . .] it is inappropriate, a real problem for editors, and an expensive one. But basically it does not fall under 'scientific misconduct.' Self-plagiarism is not 'plagiarism,' it is something else."

55. A contextual analysis of "self-plagiarism" is in Samuelson, "Self-Plagiarism or Fair Use?"

56. Kevles, *The Baltimore Affair*, 6–117. Daniel Kevles' analysis of the so-called Baltimore affair discusses the emergent, and typically ad hoc procedures and conflicting expertise mobilized in early scientific misconduct cases, as well as the poorly developed sense of due process that characterized that phase of the field. Particularly interesting is the case of Ned Feder and Walter Stewart—two NIH scientists who turned themselves into fraud busters, developing new techniques along the way.

57. Long et al., "Responding to Possible Plagiarism," 1293. A recent study indicates that 93% of plagiarized scientists are not aware of having been plagiarized.

58. Also, which government? The international and indeed, global nature of the field, and the fact that journals are not only located in many different countries (and run by typically international editorial teams) and publish work from all over the world (work that is often coauthored by scientists of different nationalities) further complicates the identification of such a government, rendering this discourse's stakeholders even more generic.

59. Deleuze, "Postscript."

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