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# Science Communication as Communication about Persons

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**ABSTRACT:** All science communication, even the most formal research paper, is ultimately communication about persons (at the very least, the projected persona of the writer). This paper draws insights from philosophy, sociology, and literary studies to explore what is at stake in communication about persons in science, and to articulate some general ethical principles.

**KEYWORDS:** science communication, ethics, virtue ethics, character, biography, climate science, Erving Goffman, Robert K. Merton, Charles Taylor, Alasdair MacIntyre, Henry David Thoreau

Every biography . . . brings together three lives: the subject's, the author's and the reader's.  
—David Cassidy, Preface to *Uncertainty: The Life and Science of Werner Heisenberg* (1992, p. x)

## 1. INTRODUCTION

Science communication might seem one of the most *impersonal* genres of communication. Yet science communication is also, always, communication about persons. Even the most dry and abstract research paper projects the author's self-image of competence, credibility, and authority. And in other genres, such as science journalism, the person of the scientist often takes center stage.

The goal of this paper is to explore the ethical dimension of communication about persons in science communication. We define science communication broadly. It can be thought of as divided into first-person and third-person accounts, and ranging from the most seemingly impersonal to the most obviously and intensely personal (see Figure 1). Communication *by* scientists ranges from technical literature to informal writings to autobiography. And communication *about* science and scientists ranges from textbook accounts through science journalism and social studies of science to biography.<sup>1</sup>

Within such a broad range of science-related genres, it might seem a challenge to draw general conclusions. I hope to show that making communication about persons the focal point of our inquiry enables us to see how insights from various quarters can be applied generally across the field. In particular, we will turn to sociology for a better understanding of the embedding of personal content in all communication, including the most formal science communication (section 2). Philosophy and social studies of science can help us understand what is at stake, why the qualities of persons matter in science communication (section 3). And those who write biographies and reflect on the nature of that craft, such as literary scholars and

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<sup>1</sup> This paper focuses on written (or verbal) communication. Communication about persons can also take place via imagery. See Fara (2007).

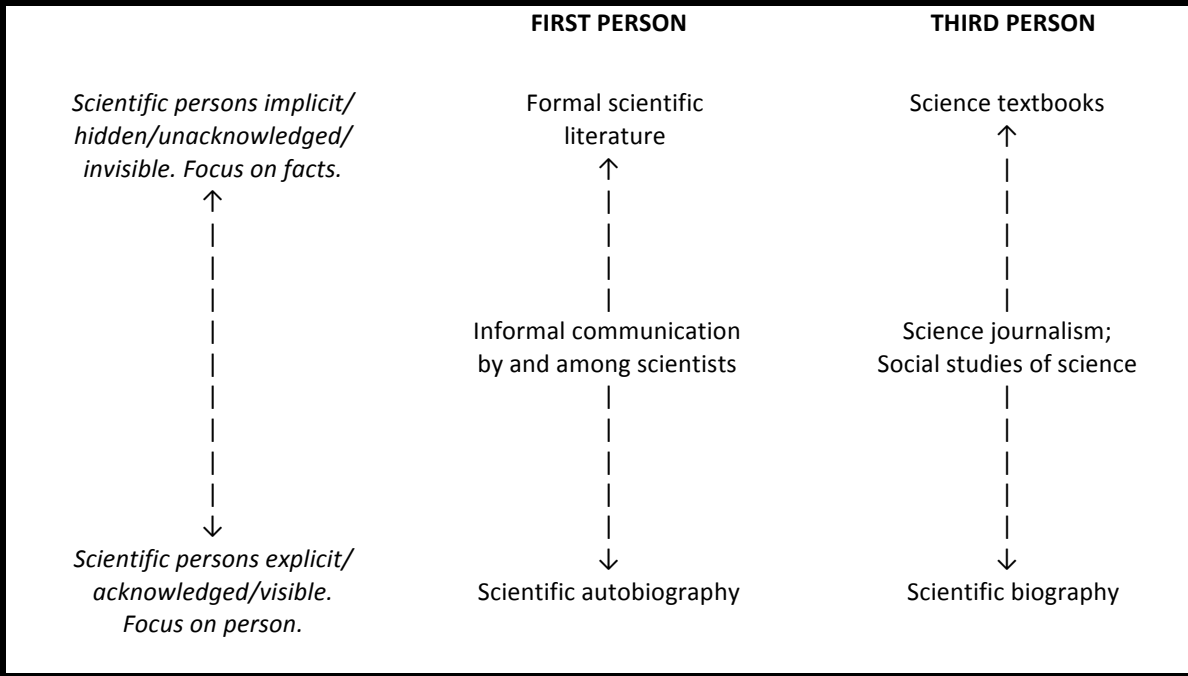


Fig. 1: Classification of science communication, with regard to communication about persons.

historians, have perceptive insights to offer into the ethical dimension of communication about persons (section 4). In seeking to lay out general ethical rules for communication about persons in science, I make no pretense that they are hard and fast rules: they represent views commonly expressed by those who have written on the subject, filtered through my own sensibility, and I offer them as a starting point for further reflection. Throughout the essay, we bear in mind that as first-person communication by scientists reflects on the character of the scientist, so third-person communication *about* scientists reflects equally on the character of the science writer. We conclude (section 5) by offering some general observations about this parallelism: the applicability of what are conventionally considered “scientific” norms to all scholarship, and possibility that science can learn from the ethics of humanistic disciplines.

Given the nature of the subject—communicating about persons—the reader may justly be curious about who I am and what experience I bring to the table. I am an environmental policy practitioner who spends a good deal of time collaborating with scientists and immersed in technical and scientific literature. I am also an independent scholar in science studies and the environmental humanities. One strand of my scholarly research has involved scientific norms, the Climategate affair, and the rhetoric of the climate science wars. At various points in this paper I will draw on my own experience to illustrate general points.

## 2. ALL COMMUNICATION (INCLUDING SCIENCE COMMUNICATION) IS COMMUNICATION ABOUT PERSONS

Henry David Thoreau (1971) famously wrote that “in most books, the *I*, or first person, is omitted. . . . We commonly do not remember that it is, after all, always the first person that is speaking” (p. 3). This is as true of formal scientific literature as any other genre. A scientist who writes in the accepted format of a technical research paper commonly goes to great

lengths to hide the existence of an author. In a seminal science studies paper, P. B. Medawar (1963) asked, “Is the Scientific Paper a Fraud?” and concluded that, in a generic sense, it is. The underlying reality is that research is undertaken by human beings driven by passions and interests. Hypotheses are framed and insights are achieved in leaps of intuition, not stepwise logic. In spite of pretensions of emotional neutrality, a scientist normally, naturally, desperately wishes a hypothesis to be true.

That scientists write in a “barbarously impersonal style” (in the words of science scholar John Ziman (2002, p. 40)), and narrate the sequence of their research retrospectively as if it had proceeded in a logic, stepwise manner, shuts us off from access to the human side of science. But even as it hides, it also reveals. As Thoreau observed, the ego of the writer shines through even with the “I” is omitted. By writing in an impersonal manner, the scientist signals allegiance and a personal commitment to shared ideals of objectivity and disinterestedness. And further, by writing in the communally accepted manner, the scientist presents his or herself as competent and self-controlled, fit to be a member of the community, willing and able to play by the accepted rules of the game. By making new truth claims the scientist presents him/herself as industrious and brilliant, or at least competent. And the foundation of the scientist’s professional reputation is honesty and trustworthiness: “Every published research claim puts the author’s reputation for probity on the line” (Ziman, 2002, p. 40). Thus the formal scientific literature is brimming with subtexts about the authors who contribute to it.

Sometimes the efforts of social scientists to “strip away the mask” of objectivity and emotional neutrality are perceived as attacks on science, as if they were exposing hypocrisy among scientists (consider Medawar’s provocative use of the word “fraud”). In many or most cases they need not be interpreted this way. For a passionate person to put on a professional mask of disinterestedness is not fraud, it is just the way things are done (see Shapin, 2010, chs. 2-3; Ziman, 2002, ch. 3).

In truth, the scientist could hardly fail to put on some sort of mask or other. The sociologist Erving Goffman (1959) observed that every social interaction is a presentation of the self to the other, a presentation that expresses an intention or wish to be seen or viewed or judged in one way rather than another. If, for the sake of argument, a scientist was to attempt to strip off the mask of impersonal disinterestedness, to present his or her research in the form of an intimate personal confession, striving for the rawest Rousseavian authenticity in Proustian detail, he or she *still* would be presenting a mask, just a mask of a different sort.<sup>2</sup>

Arguably, a manner of self-presentation that involves bearing one’s soul, reporting with unflinching candor every aspect of one’s inner life during the conduct of research, would impede effective communication among scientists, and perhaps also complicate interpersonal

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<sup>2</sup> Goffman (1959, p. 250) intimated that there are “gentlemanly” ways of presenting oneself for viewing simply as one is, with no pretense. This does not seem credible. If one is conscious of being viewed, the logic of Goffman’s theory would imply that even supposedly “gentlemanly” pretenseless behavior amounts to a show of being gentlemanly and pretenseless. Arguably, if one were completely unconscious of being viewed and judged, the self on display might be considered more “authentic”—but only in the sense of not being deliberately adopted to manipulate this particular audience. It would still be a habitual persona of one sort or another. The “mask” metaphor (which, to his credit, Goffman—unlike the illustrator of his dust jacket—uses sparingly), ultimately, is flawed. There is no masking and unmasking, merely the presenting of various countenances. Note: Goffman was primarily concerned with self-presentation in face-to-face interaction, but his insights apply equally well to self-presentation in prose.

relations unnecessarily. If some sort of mask is inevitable, the mask of impersonality that is customary in science might be thought to serve a useful purpose.

We have established that any writing by a scientist, qua scientist, is necessarily a presentation of the scientific self, implicitly if not explicitly. It is always the first person who is speaking.

In a third-person account, the person of the scientist may be explicitly present, or implicitly present when the work of a particular scientist is being discussed in an impersonal manner (in much the same manner as the person of the scientist is implicitly present in his own formal research paper). In the most abstract textbook situation, where what is being presented is not the work of identifiable individuals but the legacy of the scientific community at large, the scientific person may vanish. But the qualities and characteristics of the scientific community as a *collective of persons* is implicitly present. And this is not trivial. In many kinds of the third-person writings about science, generalizations are made or evidence provided about scientific communities' collective brilliance or civility or otherworldliness or avarice or open-mindedness or closed-handedness. Such collective qualities matter as much as individual qualities, as we will see in the next section.

Also, we should not forget that even in third-person accounts of science and scientists, it is *still* the first person who is speaking. When the journalist or sociologist or biographer writes about science, she is presenting not only her subject to the reader, but also her self. The journalist, sociologist, and biographer, too, are liable to be seen and judged whether the "I" is included or omitted.

### 3. WHY COMMUNICATION ABOUT SCIENTIFIC PERSONS MATTERS

Having established that all science communication is communication about persons, the next question is: Why does this matter? What is at stake in thinking and communicating about the person of the scientist?

#### 3.1 *What is At Stake for Scientists and the Scientific Community*

##### 3.1.1 *Self-presentation: Authority and Credibility*

The standard answer from the social study of science is that scientists, being in the business of discovering and certifying truth, are constantly engaged in the task of establishing credibility and authority. Scientific claims are strongly backstopped by replicability of results, but no scientist is ever capable of personally verifying more than a fraction of the information he or she takes in from colleagues, and a layperson is typically unequipped and unprepared to personally verify any cutting edge science at all. We all take a vast amount of knowledge, including scientific knowledge, on trust.

In other words, truth does not simply speak for itself. Historian and sociologist of science Steven Shapin (2010, ch. 2) finds a parable for this in the story of King Lear. Cordelia speaks simple truth, unadorned, unprocessed, not specially tailored for its audience or packaged in a way calculated to be credible. As a result, much to the misfortune of both parties, the truth goes uncredited.

So what factors make a truth-claim credible in the eyes of the beholder? One factor that is within the speaker's control is the medium and packaging of the information in that medium: the traditional domain of rhetoric. Another that is entirely out of the speaker's control is the

“fit” of the new information within the second party’s existing stock of knowledge and belief. Still another, only partly in the control of the speaker, is the speaker’s own perceived authority and credibility. Authority and credibility are necessarily audience-specific. Research by Kahan and others (e.g., Kahan & Braman, 2006) shows that laypersons with particular cultural orientations (hierarchical versus egalitarian, individualist versus communitarian) will diverge, predictably, in the authority and credibility they attribute to “experts” whose appearance conforms to particular cultural stereotypes (the liberal professor, the conservative businessman, etc.). But there are some personal characteristics that appear to be widely shared in our culture as markers of a “good scientist.”

The most well-known formulation of these markers is sociologist Robert K. Merton’s doctrine of “scientific norms” (see essays collected in Merton & Storer, 1973). The research program in which Merton employed the norms has fallen out of fashion since he introduced them in the 1930s and 1940s, but the norms themselves have remained a useful framework for thinking about expectations scientists place on themselves and on each other, and the commonly shared expectations that members of the public have for the behavior and demeanor of scientists.

There are no canonical definitions of the norms (a problem that has plagued generations of scholars in both Mertonian and anti-Mertonian camps), but a rough-and-ready summary is that they include universalism (participation open to all, contributions to be judged on technical merits rather than the race, religion, nationality, etc., of the person who contributed them), disinterestedness (judgment not to be swayed by egoistic or material interests), communalism (open sharing of methods and results), and skepticism (critical scrutiny to be applied widely, no sacred cows). These four norms capture many of the most important expectations we have of scientists’ behavior and comportment. So, for example, we consider it inappropriate for a scientist to suppress findings inconvenient to a funder, or to attack the work of another scientist based on political differences.

One of my own research projects has been documenting expectations about the demeanor and behavior of scientists expressed by those who participate in the public debates over climate science. I have found that both climate activists and climate skeptics share fairly consistent expectations about what kind of persons they expect and want scientists to be. They want their scientists to be humble (self-effacing, open-minded, willing to critically revise their own opinions), and at the same time skeptical (hard-nosed, independent-minded, ready to challenge the work of others) (Ranalli, 2012a).

To take an illustrative example, here is an excerpt from a posting on WattsUpWithThat, the blog of climate skeptic Anthony Watts (2011):

[Scientist A], another affable Canadian from Toronto, with an office covered in posters to remind him of his roots, has not even a hint of the arrogance and advance certainty that we’ve seen from people like [Scientist B]. [Scientist A is] much more like [Scientist C] in his demeanor and approach. In fact, the entire team seems dedicated to providing an open source, fully transparent, and replicable method no matter whether their new metric shows a trend of warming, cooling, or no trend at all, which is how it should be. . . .

[Scientist D] hasn’t been very outspoken, which is why few people have heard of him. I met with him and I can say that [Scientist E], [Scientist F], [Scientist G], or [Scientist B] he isn’t. What struck me most about [Scientist D], besides his quiet demeanor, was the fact that it was he who came up with a method to deal with one of the greatest problems in the surface temperature record that skeptics have been discussing. His method, which I’ve been given in confidence and agreed not to discuss, gave me one of those “Gee whiz, why didn’t I think of that?” moments. So, the fact that he was willing to look

at the problem fresh, and come up with a solution that speaks to skeptical concerns, gives me greater confidence that he isn't just another [Scientist F] or [Scientist G] re-run.

Here judgments are being made about the character of scientists based on visible and tactile evidence (wall furnishings that suggest humility), personal demeanor, actions taken, and words spoken. And in the shorthand of the skeptical community, the names of certain scientists are taken to stand for particular character traits such as stubbornness or arrogance. None of this is to say that character is the *only* yardstick, or even the primary one, by which skeptics—or their intellectual opponents—judge the quality of contributions to science. Most participants in the climate science wars are primarily interested in the technical details of the science, and some would disavow any interest in scientists' character. But the evidence from the blogosphere indicates that character is *one* heuristic yardstick that laypersons do use to judge the quality of scientists' contributions, and to explain and justify their judgments.<sup>3</sup>

My own contributions to the framework introduced by Merton are twofold.

First, where Merton described norms (rules and standards of behavior), I have found that it is useful to focus on character. Usually when we think about ethics we are thinking about deontological or rule-based ethics. Deontological ethics has dominated anglophone professional philosophy for several centuries. Virtue ethics, an alternative popular in the ancient and pre-modern world, has only in the last several decades begun returning to academic respectability. But in everyday life, virtue ethics has always been a common, natural way to think about right and wrong. It is second nature for us to observe and evaluate people's character.<sup>4</sup>

My second contribution is the observation that the virtues exhibited by and attributed to scientists serve not only to enhance (or detract from) the credibility of science as individuals. They also enhance (or detract from) the credibility of entire scientific communities. That is, if a community of scientists reaches consensus on a particular point, the public is likely to judge the reliability of that consensus at least in part on the extent to which the consensus is "hard-won" rather than attributable to groupthink or bias or interest—and an important heuristical basis for evaluating the quality of a consensus is the character of individual members of the community. If individual scientists are (or appear to be) timid or conformist rather than independent-minded, for example, the consequence may be that they will fail (or will appear to fail) to challenge each others' views and seriously explore alternative hypotheses, making the consensus they achieve suspect.

Goffman (1959) writes about social self-presentation as not only the concern of individuals, but of teams of individuals, who "band together and directly manipulate the impression that they give" as a "performing team" (p. 251). This could be a description of the

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<sup>3</sup> And not only laypersons: Scientists, too, judge fellow scientists on the basis of personal qualities (see Ranalli, 2012a, p. 188 and fn. 5).

<sup>4</sup> My interest in the ethical dimension of modern science developed out of historical study, where I observed that propagandists for the new science in the seventeenth century described ethical ideals for science that were expressed in the language of virtue and vice. Some (Gaukroger, 2007, p. 39) have argued the seventeenth-century preoccupation with virtue marks off that era as alien from our own, in science and in general life. I agree that we certainly do live in a more casual, ironic, and permissive culture than did Boyle and Bacon and Descartes. But we are still very much concerned with virtue even if we don't regularly call it by that name. In the realm of science, the virtues extolled and embraced in the seventeenth century are not at all incompatible with the norms described by Merton. And they are not at all incompatible with ideals for scientists' character widely shared by the twenty-first century public.

scientific community seeking to uphold its collective credibility and authority. And this effort too need not be understood pejoratively. In making a show of being independent-minded rather than conformist, scientists behave independent-mindedly and reap the benefits of independent-mindedness: quality control of published findings, generation of new hypotheses, etc. Put another way, putting on a show of being independent-minded is *constitutive* of independent-mindedness.

### 3.1.2 *Self-definition: Moral Self-authorship*

There is a tradition in biographical studies that argues for the centrality of the moral dimension in all life writing. The contributions of two virtue ethicists, Charles Taylor and Alasdair MacIntyre, are touchstones of this school of thought.

Whereas deontological ethics seeks to answer the question, “What is it right to do?,” virtue ethics asks, “What is it good to be?” (Parker, 2004, p. 53). Taylor and those who work in his tradition emphasize that “as moral beings . . . we grasp our lives as narratives,” where narratives are understood to range from “the mostly implicit stories we have of where we are ‘at’ in our lives” to full-fledged formal autobiography (Parker, 2004, pp. 57–58). Indeed, if as Taylor argues the self is “something which can exist only in a space of moral issues” (as cited in Eakin, 2004, p. 14), then surely it is true that “ethics is the deep subject of autobiographical discourse,” (Eakin, 2001, p. 123) and that all communication about the self—that is, all communication—“cannot but reflect the self’s orientation, or pattern of orientation, in moral space” (Parker, 2004, p. 61).

If Taylor teaches that we are continually confronted with the question “What is it good to be?,” Alasdair MacIntyre (1978, 1984) explains what form the answer must take. He argues that what it means to *be good* is role-specific. To be a good chess-player, or parent, or warrior, or scientist, requires cognitive work—understanding and internalizing the written and unwritten rules and approved goals—and moral work—striving excellently to achieve those goals within the given constraints.

What this tradition offers to us is the insight that the self-definition done by scientists in their formal and informal writings (and a thousand other ways) is not only *self-presentation* done to create an impression in others of competence and credibility and authority. It is normally *internally motivated* as well: the product of an individual striving, in the best way he or she knows how, to fulfill a socially defined role that he or she has voluntarily adopted as a life project (Söderqvist, 1997).

## 3.2 *What is At Stake for the Layperson*

Until now we have been discussing why science communication matters for *scientists*, the scientific community and the scientific enterprise. But we should consider the lay public audience as well. What value does communication about scientific persons offer to the public, what is at stake for the public in this aspect of science communication?

### 3.2.1 *For the Citizen, a More Accurate Understanding of the Scientific Enterprise*

Perhaps most importantly, candid biographical and autobiographical writings about people who do science *humanizes* and *demythologizes* science. It helps people orient themselves in



their universe by providing a more accurate and clear-eyed view of this important institution than they might otherwise come to if all they had was a schoolbook understanding of the “scientific method” and an appreciation of the amazing technical marvels and immense destructive power that flow from scientific laboratories. Humanizing science can relieve the semi-divine aura that all too easily can come to surround an institution with such immense cultural authority.

For the student in particular, who might contemplate a career in science, communication that provides a clearer understanding of the human dimension of science can be an important public service. The conventional myth of objective disinterestedness does a disservice in this regard. Philosopher Steven Toulmin (1978) observes that there is “a strong element of pious fraud” in the “polite convention” that “an unworldly love of truth and/or rationality for its own sake” is the only acceptable or operative motive among scientists (p. 61). Under the sway of this popular illusion, people-oriented individuals might pass up a potentially rewarding career in science. At least one writer (Holton, 1975, p. 45) has suggested that science has suffered by its failure to attract more people-oriented persons to its ranks. Shining a light on the actual day-to-day life of working scientists could help recruit to the field individuals who will thrive in and enrich that environment.

### *3.2.2 For the Science Scholar, an Additional Dimension of Insight*

For those who wish to know how science works—and this category includes both the professional ranks of humanists and social scientists and the interested lay public—an understanding of scientists as people is indispensable.

That indispensability hasn’t always been appreciated. For much of the twentieth century, serious historians of science eschewed biography as an inferior form of scholarship. This prejudice was born out of antipathy for the moralistic “great man” narrative that was typical of scientific biography in the nineteenth century (see Söderqvist, 2007, p. 244ff for a historical overview of the genre). For much of the twentieth century, the essence of science was sought in methodology, or conceptual commitments, or social norms. As each of these approaches has failed to entirely satisfy, the science studies community has largely fallen back on a pragmatic definition of science as simply “what scientists do.” Greater interest has followed in scientists as people, indeed scientists as (in the inelegant title of one excellent book on the subject) “people with bodies, situated in time, space, culture, and society, and struggling for credibility and authority” (Shapin, 2010).

Correspondingly, biography has found renewed scholarly respectability. And the new willingness to view science as one component in the larger context of scientists’ lives shows great promise. The Danish scholar Thomas Söderqvist found the stormy personal life of twentieth-century immunologist Niels Jerne such a rich mine for interpreting and explaining the origins of Jerne’s scientific theories that he saw fit to use the motto “Science as Autobiography” as the title of Jerne’s biography. Söderqvist (2003) explains that Jerne’s creative theorizing about the nature of the immune system, later validated by empirical research, “was, to use Nietzsche’s words, ‘the confession of its originator, and a species of involuntary and unconscious auto-biography.’” (p. xxv)

Söderqvist (1996) offers physicist Percy Bridgman (p. 60) and zoologist Ilya Metchnikoff (p. 70) as additional examples of scientists whose creative professional achievements can be best appreciated in context of their personal existential struggles. It may

not be in every case that a scientist's contributions are so transparently autobiographical. But personal stories will undoubtedly provide insight in many cases.

### 3.2.3 *For Disputants, Humanizing the "Other"*

Reading about the lives of others offers a reflective opportunity to step into the others' shoes. As literary scholar Larry Lockridge (1999) writes, "readers of biographies are tacitly engaged in a continuous hypothetical testing of whether a substitution could be made of their own identity for that of the biographical subject. . . . Readers of biographies in effect ask themselves, . . . 'Could I conceivably do that? Could I be that?'" (p. 136). Reading biography provides an opportunity to expand our moral universe through empathy and imagination (Eakin, 2004, p. 14). It allows us to appreciate our common humanity in spite of superficial differences, and it also may open our eyes to ways of being that are quite different from those we expect or consider the norm.

Consider an example from the climate science wars: One of the memes that is popular in climate-skeptical circles is a suspicion, or conviction, that climate scientists are "only in it for the money." This, it seems to me, reflects a certain amount of naiveté about how science funding works and an even greater naiveté about the character of scientists. Greed is far from the characteristic vice of scientists. Scientists may be subject to pride—pride in their cultural authority, pride in their reputation for probity—and perhaps envy as well, each wishing to earn honors and set a mark on history. But on the whole, greed would appear to rank fairly low among scientists' motivations. (This is at least the distinct impression I am left with, based on personal experience and extensive reading.)

Why would so many of those who question scientists' output assume as a matter of course that the scientists are strongly motivated by the lure of material rewards? I'd speculate that, at least in part, it reflects a failure of the moral imagination on the part of climate skeptics, who are predominantly conservative and libertarian: champions of the private sector, markets, the individual's unfettered pursuit of happiness, and the profit motive. To paint with a broad brush, the typical skeptic who extrapolates from his own personal and cultural experience may find the lure of material rewards a probable default explanation for the other's behavior.

If I am right about this, science communication that paints an accurate portrait of leading climate scientists might help the public form a more accurate estimation of the scientists' character and motivations, and might help open-minded climate skeptics to appreciate and understand a personality type that is significantly different than their own.

By the same token, environmental activists—the sort of persons who are inclined to act in solidarity to limit their own standard of living for the sake of future generations—might make a default assumption that climate scientists conform to a similarly self-abnegating, heroically public-spirited stereotype. Some may, but others certainly do not. This too could be clarified with greater knowledge of actual scientists' personalities.

Fred Pierce (2010), a British journalist who has written extensively about the climate science debates, has rightly called the circumstances that led up to the Climategate affair a "tragedy of misunderstood motives" (p. 13). The climate scientists assumed (based on previous experience with well-orchestrated smear campaigns) that skeptics were simply out to harass and disrupt legitimate science, not to acquire knowledge. Skeptics assumed that the scientists' refusal to share data meant the scientists had something to hide. In each case, a more accurate

estimation of the others as persons—their knowledge, experience, habits of thought—might, arguably, have defused the conflict.

Thus, much good could be expected from communication *about people*—scientific and otherwise—that draws full and human portraits, to reduce the scope for misunderstanding and impute correct motives.

#### 4. ETHICAL GUIDELINES FOR COMMUNICATING ABOUT PERSONS

In this section of the paper we introduce and discuss two broad and multifaceted ethical imperatives for communication about persons (in general, and in the context of science). One is addressed to the rights of the reader, the other to the rights of the subject.

Many of the ethical insights discussed in this section come from the study of biography. I will not argue in detail in the case of each insight, but I assert here—and invite the reader to consider for him or herself whether it is true—that what is true for biography as life writing writ large also applies, *mutatis mutandis*, to more modest forms of life writing (journalism, social science, and the more implicit forms of personal characterization and self-presentation).

##### 4.1 First Imperative (*Vis-à-Vis the Reader*): *Be Truthful*

What does the writer owe the reader? The first, most important, and most universally acknowledged ethical rule for communicating about persons is the imperative to *be truthful* (e.g., Eakin, 2001, pp. 113–114; Eaken, 2004, p. 1ff; Hankins, 1979, pp. 1–2; Lockridge, 1999, p. 133; Mills, 2004, p. 104; Shortland and Yeo, 1996, p. 35)

This simple imperative is anything but simple to put into practice. As historian of science Thomas Hankins (1979) observes, it “places a moral obligation upon the biographer, but does not give him much direction” (pp. 1). What does it mean to be truthful when talking or writing about a person’s character, and can truthfulness be achieved in absolute terms?

##### 4.1.1 *Fact versus Essence*

The imperative to be truthful can be understood as an imperative to *be factual*. This means avoiding outright falsehoods, and also being scrupulous to avoid narratively convenient but unsubstantiated assertions, what Lockridge (1999) calls “novelization”<sup>5</sup> (p. 133).

But even strictly hewing to facts is not enough. Biography should be, in Hankins’s (1979) words (epitomizing the view of eminent biographers such as Nicolson and Condorcet), “both a true *and essential* account—one that not only relates facts, but also uses those facts to recreate accurately the subject’s character” (pp. 1–2, emphasis added).

As it is possible to lie with statistics, so it is with facts. In a qualitative analysis of any kind presented in prose, a general point is usually illustrated with no more than a handful of examples. In the life-writing context, it can hardly be doubted that a handful of (true) examples of behavior could be cherry-picked to support nearly any conceivable generalization about an individual’s character. It is wrong to cherry-pick examples of behavior to fit a preconceived

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<sup>5</sup> Novelization is “the unacknowledged use of narrative bridges and interior monologue where no direct substantiation exists, or where there is direct counter-evidence. It is a mix of inference and invention that goes unannounced. As such, it differs from honest, outright speculation” (Lockridge, 1999, p. 133).

notion of character, and it is also wrong to generalize (without appropriate caveats) about character from a limited sample of observations. Reliable assessments of character will be based on extensive and intimate knowledge. Life writing is thus “an inductive process, the biographer building his character as much as possible from the evidence, and not from any preconceived ideas or anachronistic interpretations” (Hankins, 1979, p. 2), and in this sense follows methods and norms not unlike those commonly prescribed for science.

#### *4.1.2. Imposition of the Author’s Perspective*

Any writing necessarily imposes some sort of order on a complex and subtle reality. Some literary scholars take this to mean that no biographical writing can be considered strictly truthful. Ira Nadel, for instance (as cited in Lockridge, 1999), writes that “the narrativity of biography gives real events the form of a story, imposing meaning and pattern on reality, which does not organize itself into either meaning or truth.” It is “narrative desire, the urge to tell the story of the subject” that “in its telling establishes meaning” (p. 131). Scientific biography may be cast as a moral parable of vindication or condemnation, the tale of an outsider’s struggle with peers and institutions or a hero-explorer’s quest, or a Bildungsroman (narrative of self-development), among other narrative forms; discovery dreams and eureka moments are familiar narrative devices in the genre (Nye, 2006, pp. 325–327).

While it is undeniable that narrative form imposes meaning, sometimes seductively, it is nevertheless also true that facts also impose and constrain meaning. Lockridge (1999) points out that a biographer’s job typically involves uncovering and reporting new documentary evidence, and this evidence may overturn established narratives and suggest new ones (p. 131).

Lockridge (1999) observes that “biographers are always confronting narrative choices based on their sense of probability” (p. 132). In other words, the form of the biography is under-determined by the facts of the life, and the biographer must make choices and judgments, choices that cannot fail to reflect the biographer’s own worldview, maturity, and character.

This is an instance where biography is also autobiography. Science historian Mary Jo Nye (2006) points to the example of Richard S. Westfall, who “arrived at the insight that the Puritan ethic that informed his own life furnished the set of categories that he used to construct his picture of Newton” (p. 327). Westfall frankly acknowledged that “in writing [Newton’s] biography I have nevertheless composed my own autobiography . . . a portrait of my ideal self, of the self I would like to be” (as cited in Nye, 2006, p. 327).

Westfall’s predicament may be inescapable, but we should be on guard against it. As we observed earlier (section 3.2.3), another’s character and worldview may be radically different than our own. Lockridge (1999) urges us to respect the “alterity” (a Coleridgean term) of the other (p. 129). If we contentedly interpret the life and character of another as merely a distorted mirror of our own, we will fail to do justice to the subject and fall short of our responsibility to the reader.

In an essay about science biography, Söderqvist (1996) suggests how the problem of alterity may be tackled. The writer must “adopt an empathetic stance which does not falsify the scientist’s position by imposing an alien vocabulary.” He or she must “be sensitive to the vocabulary the person uses about himself, his work and the world around him”; in other words, the writer must “go native.” (p. 63). To be sure, we can never step outside our own personal perspective and mental categories. But in studying another human being with empathy we can

strive to expand our perspective and augment our set of mental categories, what Söderqvist calls our vocabulary.

#### 4.1.3. *Emotional Involvement*

As Medawar observed, every scientist has some emotional involvement with his or her chosen topic, be it ants, or plants, or planets. This involvement makes absolute objectivity unattainable. The biographer, too, necessarily has emotional involvement with his or her subject. The fact that the subject is a human being—and sometimes a living human being—makes the problem of emotional involvement more acute and complex.

As Söderqvist (2003, p. xxi) and Smocovitis (2007, pp. 216–17, see also literature cited on p. 209) testify, those who write about scientists are susceptible to attachment, identification, and emotional involvement. The emotional involvement need not be sympathetic. Biographers may come to loathe their subjects. Nye (2006, p. 328) lists Thomas Hager (biographer of Linus Pauling), Söderqvist (biographer of Jerne), and possibly Martin Sherwin (co-biographer of Robert Oppenheimer) as examples of disaffected scientific biographers. Söderqvist (2003) records that at one point he needed to unburden himself to a therapist who specializes in treating biographers(!), and it was only by giving himself permission “not to like Jerne” that he was able to complete the biographical project (p. xxi).

Personal feelings add an irreducible bias to communication about persons. They make perfect objectivity impossible. But they do not make the exercise entirely futile. It is possible to *strive* for objectivity and detachment and to achieve it to a substantial degree. As Lockridge (1999) puts it, “all biographers have an interest of one sort or another.... But the standard of disinterestedness remains to help guard against dual errors—the negative idealization of the hatchet job, and the positive of hagiography” (p. 133).

Multiple biographers report that in spite of strong emotional involvement with the aging rock-star scientists they interviewed and shadowed, they were able to achieve substantial detachment after the death of the subject (Smocovitis, 2007, p. 217; Söderqvist, 2003, p. xxi). Death, of course, is not required: the key ingredient is personal distance and the passage of time, which puts all sorts of relationships, not just those between biographer and subject, in proper perspective. And the process of writing itself may help to achieve the necessary emotional distance (Söderqvist, 2003, p. xxi-xxii). “The final result should emerge as a happy divorce,” testifies Söderqvist (2003), “a certification that the writer has freed himself from the central figure” (p. xxii).

Emotional involvement poses a challenge to the biographer, but adds to the depth of insight the biographer is able to achieve. Vassiliki Betty Smocovitis (2007), biographer of evolutionary biologist George Ledyard Stebbins, reflects that “conflicting feelings . . . if explored and integrated into the writing of the biography, may even enhance the quality of the biographical product” (p. 216). They make possible a portrait that is more vivid, more “true to life” (Smocovitis, 2007, p. 217).

#### 4.1.4. *Striving for Objectivity—a Reflection on the Writer’s Own Character*

Ultimately, what truthfulness requires is a *commitment to accuracy and objectivity* on the part of the writer in spite of epistemic challenges and ambiguities and personal feelings. This speaks to the character of the writer, whether a biographer, journalist, or social scientist. As

Lockridge (1999) says, “even if truth-telling . . . cannot be absolutely commanded in either biography or autobiography,” it is “*meritorious* wherever and to the degree this happens” (p. 139, emphasis added).

#### 4.1.5 Truthfulness in First-person Writing

Both the biographer and the autobiographer must meet minimum standards for factual accuracy. But beyond that, there is a certain asymmetry that leads us to allow a first-person writer greater leeway (see Lockridge, 1999, p. 136ff).

In the first place, one simply can’t be as objective about oneself as others can. We have unmatched access to the data of our own lives, but we simply do not have the opportunity to cultivate the detachment necessary for a balanced account (see section 4.1.3).

That much is methodological. The second reason is more essential: Writing in the first person is not simply describing or narrating, it is active self-fashioning (c.f. section 3.1.2). “The autobiographer’s act of composition may be regarded as itself part of a life still in the making. Writing autobiography is a continuation by other means of the life being narrated, on the edge of the compositional present” (Lockridge, 1999, p. 138). Personal autonomy requires that we respect an individual’s right to explore self-definitions and find meaning on their own terms. That does not mean an outside observer can’t pass judgment on the success of the autobiographical effort, and it doesn’t excuse the autobiographer from striving for truth, or give the autobiographer the latitude to harm others in his or her writing. But it suggests a wider range of tolerance than we would give to third party.

Lockridge (1999) draws an analogy with other ethical arenas:

We could probably come to some agreement that murder is morally wrong. But we would debate the ethics of suicide all night. Similarly, we might grant autobiographers greater latitude and entitlement as to what they can *say about* themselves, just as we grant people greater latitude as to what they *do to* themselves. Autobiographers are free to hang themselves, as many unintentionally do. (p. 137)

In the end,

autobiographical truth is something more and other than factuality. If the autobiographer is on oath, it is to construct an identity plausible and public enough for the reader to recognize it, to entertain it. . . . So considered, a ‘self-mythology’ may be the autobiographer’s truth and a usable public truth as well. (Lockridge, 1999, p. 139)

A sincere commitment to the goals and standards of a scientific profession as a life project (see section 3.1.2) may be considered such a “self-mythology.”

#### 4.2 Second Imperative (*Vis-à-Vis the Subject*): Be Respectful

Both the scientist (student of things) and the biographer (student of persons) have an obligation to be truthful. But the biographer, whose subject is a person’s life, livelihood, and character, has an additional obligation: to be respectful. Literary scholar Paul John Eakin (2004) calls “respect for the person, whether oneself or another,” a “guiding value” (p. 15). Being respectful doesn’t mean refraining from criticism, even strong criticism, but it sets some bounds to life writing.

#### 4.2.1. *Judicious Exercise of Biographer's "Predatory" Power*

The civilized, urban carnivore may seek, by taking its carcasses in the form of breaded nuggets and hamburger patties, to escape from the guilty knowledge that he or she is responsible for taking lives. The indigenous hunter, on the other hand, recognizes and accepts his or her culpability and seeks to expiate or redeem it.

The biographer too is a carnivore of sorts. Legal scholar Jeffrey Rosen (as cited in Eakin, 2004, p. 8) observes that “there are few acts more aggressive than describing someone else.” Journalist Janet Malcolm (as cited in Eakin, 2004, p. 9) characterizes the biographer as a “professional burglar, breaking into a house, rifling through certain drawers that he has good reason to think contain the jewelry and money, and triumphantly bearing his loot away.” The burglary metaphor is only barely an exaggeration. Quite actual “rummaging through closets and reading of other people’s mail” is all in a good day’s work for the biographer (Lockridge, 1999, p. 132).

Lockridge (1999) states frankly that “the biographer incurs the moral jeopardy of a predator”:

In a sense, the biographer takes possession of another, in the current metaphors colonizing or cannibalizing the life in *finding it out*, and using the subject as a means, especially the personal career advantage of getting a book published. This *violates Kant's imperative to treat other human beings not as means but as ends in themselves.* (p. 132, emphasis added in final sentence)

This violation can be keenly felt. One of my early scholarly articles, which dissected the rhetoric of the public climate debates, was in turn reviewed and dissected on several prominent climate blogs. As a fairly private person, I found this attention partly flattering, but also discomfiting. My article argued, in part, that when we pass judgment on the credibility of others’ arguments and conclusions, frequently we also pass judgment on the other’s character as well. In the ensuing blog chatter, I unsurprisingly found myself on the dissecting table alongside my own arguments and conclusions. I was called “naïve.” It was assumed that I was the sort of person who “can’t do science” and therefore turns to social science “to create an impression of relevance.” Though I was “brainy” and “an apparently reasonable, even-handed, intelligent figure,” the fact that I had not grasped “the blindingly simple truth” about X and Y and Z made it clear that I was “obviously disingenuous.” One commenter objected to my “prissy writing style” and “the apparently self-conscious attempt to appear above the fray.” Another considered me “de haut en bas” (a phrase I had to look up): a sneering elitist (if “marginally more sophisticated” than your average sneering elitist) and the moral equivalent of “a stone-age witch doctor.” I was accused of wasting time and probably taxpayer money. I was given props for allegedly “admitting” that my own article was a “weak effort.”

Lockridge (1999) speaks the “discomfort” we feel “when overhearing others speak of us—our indignation when they have it wrong, our despair when they have it right” (p. 133). That was my experience.

But if I was a victim, I was also as guilty as any predator. The bloggers who judged me did so based on words that I had carefully polished and submitted to a journal for publication, in full knowledge (or hopeful expectation) that they would be read by strangers. I, on the other hand, based my analysis in part on the stolen private emails of climate scientists.

In other words, I myself had trespassed on other’s lives (in fact, both the beleaguered scientists’ and their opponents’) by describing them in my words, and by treating their own public and private communications as artifacts: in Lockridge’s (1999) terms, “forging through

the debris of somebody else's life" (p. 132). Where is justice in this scenario? Can such an offense be justified or redeemed?

To state the problem more generally: as the predator has no other way to subsist but to eat flesh, the scholar or journalist who wants to communicate something of value about science and scientists has no other choice but to write about science and scientists. As Lockridge (1999) says of the conflict between the interest of the biographer and the rights of the subject, to categorically decide the "irresolvable moral antinomy . . . in favor of the subject would be to pre-empt the entire biographical project" (p. 132). Ethical philosopher Claudia Mills agrees (as paraphrased and quoted by Eakin, 2004, p. 10) that "the cost of telling someone else's story is inescapable: 'The sharing of stories does require that stories be shared.'"

Given that the writer who writes about people will trespass morally on his or her subjects, what is to be done? The trespass must be expiated with, as Mills (2004) writes, "appropriate care and respect for the stories told . . . with sensitivity and concern both for the stories themselves and even more for the persons, for the human beings, whose stories these are" (p. 114). What, then, are the relevant criteria? What exactly does "appropriate care and respect" entail?

#### *4.2.2 Telling Stories with Redeeming Value*

First, one must ask: Is this a story that deserves to be told? Does it have some redeeming value? Mills (as paraphrased by Eakin, 2004, p. 10) argues that "to say that one is simply telling the truth, the usual all-purpose defense embraced by life writers whose motives have been impugned, is not enough to let one off the hook." Literary scholar Nancy K. Miller (as paraphrased by Eakin, 2004, p. 11) also finds that "telling the truth is not . . . in and of itself enough to justify disclosure."

Justifications for putting another person under the microscope range widely. Most scholars would agree that making a "contribution to knowledge" is normally sufficient. Journalists may appeal to the public interest. Many would agree with Mills (paraphrased and quoted in Eakin, 2004, p. 10) that voyeurism, "the debasement of 'talk show broadcasting,'" is not sufficient.

The difference between a story with redeeming value and one without is not only found in the subject matter: the manner of telling the story matters just as much, or more so. So criticism or a harsh assessment of another person, for example, can be character assassination or can be something more edifying. Mills (2004) quotes Brenda Ueland's praise of the "honesty, earnestness, and extraordinarily clear vision" of the great Russian writers in this regard:

When they write about repulsive people, whom no doubt they knew well, there is nothing caddish or reprehensible about it. . . . Why is that? Is it because Tolstoi and Chekhov and Dostoyevsky and Gorky were so serious, so impassioned, so truthful about everything and would never let themselves show off or jeer or exaggerate? If you are serious in describing bad people and not mean or derisive or superior . . . even the bad people will be grateful. I would never resent being described by Chekhov, no matter how repellent the picture. I would try to be better. If Sinclair Lewis did it, or D. H. Lawrence or H. L. Mencken I would sue for libel,—a million dollars. (p. 114)

This is another instance where the (perceived) character of the writer matters. Earnest or snide can make the difference between a worthy and unworthy story, and one that will fall on receptive or deaf ears.



#### 4.2.3 *Extra Vigilance in Truthfulness, Out of Respect for the Subject*

Second, respect for the subject means a redoubled commitment to truthfulness. This is because errors and failures of judgment not only reflect poorly on the character of the writer (if they are found out), but may easily also have repercussions for the subject or his/her memory. As Lockridge (1999) writes: “publishing a biography inevitably poses the question of the subject’s moral worth within the virtual court of a readership, whether or not the biographer encourages such judgment” (p. 133). Everyone has a right to a fair trial. When a writer drags another person into the court of public opinion, the writer has an obligation to be scrupulous about the facts and what can or cannot be inferred from them: “To tell the story of another’s life imposes an obligation to be as truthful and fair as possible” (Lockridge, 1999, p. 133).

#### 4.2.4 *Respecting Boundaries / Rights of the Subject*

Respect also means setting and observing reasonable boundaries, so as to respect privacy and not to cause undo harm. Söderqvist (2003), for example, reports that in his biography of Jerne he refrained from divulging any more details of the intimate personal life of the subject than necessary to make points essential to the narrative, and as little as possible about living family members (p. xxi). Smocovitis (2007) similarly felt obligated, as a guest invited into the homes of her subject and his wife, to take seriously the “trust, confidence and the dignity that both had a right to” (p. 214).

What constitute “reasonable” boundaries can vary widely from genre to genre, and reasonable people might disagree. Greater latitude is forgivable with dead subjects than with living ones.

#### 4.2.5 *Striving for Appropriate Care and Respect—A Reflection on the Writer’s Own Character*

Each of these criteria for respectfulness—telling a worthy story, striving for truthfulness, and seeking to minimize harm—can be seen as a reflection on the character of the author. As Lockridge (1999) says, capturing at least two of the three criteria, “by way of compensation for violation of the subject, the biographer may aspire to certain virtues—of disinterestedness, honesty, accuracy and fairness in a just telling of the life, a life that for one reason or another *ought* to be told, after all” (p. 133).

### 5. CONCLUSION

In closing, it is worth remarking again on the parallels between common ideas about the ethic of science and the ethics of writing about science. Another way of saying this, as I have remarked in other contexts (Ranalli, 2012a, p. 200), is that *scientific norms* shade neatly into *general scholarly norms*.

Both the scientist and the science writer are expected to demonstrate a commitment to objectivity and truthfulness—a commitment that is no less crucial for the fact that its object can never be achieved in absolute terms. Both are expected to strive for emotional detachment, despite their very human interest and involvement in their subject.

Less obviously and less transparently, both the scientist and the science writer are engaged in self-fashioning at every turn. They are aiming to demonstrate competence and

credibility, among other virtues. And in striving to excel at their craft, they are answering the moral question, *what is it good to be?*

The imperative to be respectful is one area where the science writer appears to part ways from the scientist. This is because the science writer deals with persons qua persons, while the scientist does not—even the social scientist deals with persons formally only as a bundle of urges and tendencies (as homo economicus, or an oedipal ego, or any number of other abstractions). But does it necessarily have to be that way? Among critiques of science are strands that consider the impersonality of modern scientific thought and practice a pathology. Berman (1981), for example, sees in the patent neuroses of men like Newton and Descartes a prototype of the modern “disenchanted” way of viewing and treating the world as inanimate. The alternative, to treat the world and its many components as animate—imbued with a certain degree of personhood, personhood that commands *respect*—is alien to common secular modern modes of thinking, but not outside our experience as a species and arguably not incompatible with the modern urge to know and explore. (c.f. Ranalli, 2012b)

Henry David Thoreau is sometimes held up as an exemplar of a more humanized scientific practice, one that engages the scientist as a whole person and seeks to treat the scientific object as much as possible as a subject (Walls, 1995). His famous poetic sensibility gave him empathy with both living and nonliving objects of study. (The story is told that when a local wag asked Thoreau if it was true he didn’t shoot birds in order to study them—as did contemporaries like James Audubon and Louis Agassiz—he retorted, “Do you think that I should shoot you if I wanted to study you?” (Harding, 1982, p. 356))

Thoreau’s poetic sensibility did not, as one might be tempted to fear, preclude the emotional distance required for objectivity: Thoreau equally famously possessed a ruthless critical sensibility (arguably, honed by his practice of journaling) that he applied generously to himself and to the habits and opinions of others. The poetic sensibility (anthropomorphizing the owls, loons, and whip-poor-wills around Walden Pond, seeing armies of Troy and Greece in ant colonies, etc.) did not impede in the least his ability to produce valid findings in phenology, ethology, ecology, etc. To speak more generally: a capacity for empathy and a capacity for skeptical inquiry might seem to be opposed, but they are actually two separate virtues and it is possible to cultivate both. As Smocovitis (2007) pointed out in the context of scientific biography (section 4.1.3), to write well about a subject requires *both* that we achieve sufficient closeness to generate insights, *and* that we subsequently achieve sufficient distance to process and frame those insights objectively.

Scientists today follow basic ethical guidelines for the treatment of human and animal subjects. Might they profitably follow Thoreau’s example even farther in this direction? The exercise we have undertaken in this essay suggests that, should scientific practitioners aim to adopt or adapt it, a generalized ethic of respectfulness toward objects of study is available from humanistic scholarship.

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