Research Misconduct: A Multiperspectival Approach

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This paper engages the topic of research integrity with a foundation that differs from that which appears in more traditional treatments of misconduct (1, 2). These other treatments are grounded in the notion of "role;" that is, scholars are in role and guided or controlled by certain norms whose abrogation are role sins.

But what if one, at base, defines the scholarly life in different terms, not on the basis of distinct research practices, mandated by professional role, but where there is no separation between how one lives one's life and how one produces as a scholar? Or, what if one uses one's scholarly work as a way of living one's life in the broader society and culture such that one's impact (3) will reshape the environments in more acceptable terms to oneself and others? Current misconduct considerations need to pre-suppose social and psychological patterns under girding professional life that are, in fact, more varied than often assumed.

The traditional norms, such as communality, universality, organized skepticism, or even their opposite as counter norms–which continue the salience of the dominant terms–and which have historical grounding (4) do not capture these definitional differences, as the wars among the epistemologies make rather clear. How might we engage this thicket? We need to do so less as watchdogs, which is the current preferred pattern. Charging and defending individuals and social institutions is but one set of approaches. Holding individuals to norms that are irrelevant to their definitions of scholarly work and life will not motivate us to consider how we might address the heart of the knowledge creating enterprise in its foundational diversity. This is a time for rethinking what norms and standards should obtain, and we need to do so with energy and with expectations of their significant complexity.

Unfortunately, this complexity and inventiveness is not apparent in the Report of the Commission on Research Integrity, entitled *Integrity and Misconduct in Science* (5), though it invites definitions from various single and multidisciplinary fields. It argues that:

> Research misconduct is significant misbehavior that improperly appropriates the intellectual property or contributions of others, that intentionally impedes the progress of research, or that risks corrupting the scientific record or compromising the integrity of scientific practice....(5)

It develops new terms, in place of "fabrication, falsification and plagiarism," namely, "misappropriation, interference, and misrepresentation" (5). The first includes plagiarism and also notes the improper use of what is essentially confidential or privileged information; the second covers the damaging of others' research property; and the last deals with attempts to deceive, from omission or commission. There are other forms of "professional misconduct" added to that of research misconduct, primarily dealing with attempts to obstruct investigations of misconduct. In addition, there are calls for both academic institutions and professional fields or disciplines to develop codes of

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conduct and to provide a variety of educational experiences for scholars regarding ways of behaving professionally to avoid research misconduct. While this committee's initiative in rethinking misconduct and its invitation for contingent organizations to focus on "local" concerns appears positive, there appears to be no larger vision in the recommendations, apart from the Committee's observation that a basic principle was "that scientists be truthful and fair" (5). That is, there is no sense that inquiry, the actions of scholars, or the codes of disciplinary/ multidisciplinary communities vary considerably. However, these are not just local factors that are at issue, but different world views, different logics-in-use. Unless our codes take them into account, scholars will be applying the wrong rules and norms for their own and others' research and ignoring the need to create norms that have relevance.

Communities of Scholarship

The focus of this paper is to begin generating different sets of values or norms that have relevance for alternative ways of knowing, not reflected by singular methods or in specific fields, but in light of co-existing epistemological contexts. And, the location is the social sciences and not the natural sciences—which are assumed in nearly all conversations regarding research integrity. We do need to refresh the conversation with creative possibilities that are in keeping with *how* and *with whom* scholars do their work. As these alternatives become more evident there is a responsibility to consider their implications for normative as well as other issues. Alternative warranties for different ways of doing scholarship and being academics are needed. Three years or 36,000 miles is just one solution.

Academic Contexts

This paper differentiates the notion of "academic context" in terms of the generativity or embeddedness of the knowledge and the openness or stability of the communities within which scholars work. It appears that the concepts of "constitutive" and "regulative" can be appropriately applied as significant adjectives to both knowledge and community such that we identify working cohorts of scholars who are engaging with knowledge differently and whose work will have differential value to other stakeholders who identify with each other.

Many scholars evoke images suggested by the distinction between newly conceived and established knowledge, including Lorraine Code, who in *What Can She Know*? (6), extends constitutive and regulative patterns to the community, as well as to the knowledge that transpires among its members. It is the interaction of various approaches to knowledge *and* to community that shapes the academic contexts in which scholars live their lives. Let us use Code (6), though one could focus on many, many others to make the same distinctions under the banners of their foundational goals (e.g., 7,8,9,10).

Academic Communities

First, let us differentiate among "academic communities."

1. In a *constitutive community*: "...every cognitive act takes place at a point of intersection of innumerable relations, events, circumstances, and histories that make the knower and known what they are, at that time... (It focuses on) the complex network of relations within which an organism realizes, or fails to realize its potential... (6)." The community allows for interrogation, renegotiation ; it evidences trust which "involves making oneself vulnerable... (6)."
2. In a *regulative community*: One sees authoritarian knowers who "...claim credibility on the basis of privilege alone or of ideological orthodoxy... (6)." Code suggests that there is an obsession with autonomy and an overemphasis of the self (6).

Regulative communities have historical dimensions with regard to the participation of various actors. These dimensions have significance for an understanding of current professional directions, as exemplified by Hull's work on the consequences of members' contributions to the field of taxonomic biology. Regulative fields are more integrated and planned with professional divisions than are constitutive communities which are more organic, emergent, and fragmented, with collections of individuals coming together for cause, that is, the attraction of a problem or issue rather than a continuing research or theoretical focus.

Much of academic life is geared to the celebration of success, and the study of action, in

a regulative model of community, is reflected by research prizes, citations studies of a contribution's value or impact, and the life of research schools (12). Constitutive communities often are inappropriately placed in the regulative frame as when one discusses a field or area as being "pre-paradigmatic," as if it were "pre-pregnant." It occurs inappropriately when a comparison of citations patterns is made between physicists and educationists, as if research papers are not used by the latter for policy guidance, a value that goes unrecorded, and assume the only value of a paper is in crafting new research. Now let us differentiate among kinds of knowledge:

1. For *constitutive knowledge*: one takes account of testimony and cognitive interdependence (6),..." letting 'objects' of study speak for themselves..., ...understand(ing) difference and accord(ing) it respect (6). It grows by accretion without a preexisting frame.
2. For *regulative knowledge*: there are more standard forms; it is more hierarchical, is informed by such principles as objectivity and value-neutrality at the same time it is also more adversarial and territorial (p. 6).

Constitutive knowledge is developed from many sources; it is constructed piecemeal, whether the source materials are concepts, ideas, or data bases, or some combination derived from resources made proximate by the scholar who creates such a bundle to address a "problematic." A marvelous example is reflected in Shapin's work (13) where he writes in his introduction: "(This book on social history) is concerned with questions ...which have traditionally been the preserve of philosophers; it uses evidence and techniques customarily owned by historians; and the conclusions it arrives at are broadly sociological in form and substance." He disavows an interdisciplinary orientation and hopes to be identified as an historian. Regulative knowledge is more standardized, cumulative, specialized, and stable.

There is an interaction between "knowledge" and "community," that is, alternative kinds of knowledge are crafted in communities of either type. It is important to not necessarily equate the resulting four types of possibilities with disciplines or fields of study. Some fields or disciplines may have contexts of only one type; there are many in the social sciences that embrace those reflecting multiple logics. For example, on a common-sense basis, it is clear that the field of psychology embraces humanistic and behavioral alternatives, as well as areas that are laboratory and clinically-based. To place a field such as this conceptually in one area is to deny its multiplicity. It contains cohorts of scholars who could be differentially placed in the four-fold scheme, as suggested above. But, such locating is not necessarily a "cold-blooded" act of placement; it occurs as well among scholars who react with some emotion to each other's work. This paper acknowledges the legitimacy of all that claim to be knowledge communities and asks the reader to surrender her or his current categories for the suggested set of alternatives. Unless one is so willing, it is possible that researchers may be locked into more narrowly defined debates than relevant. In commonplace language, this is seeing the trees and not the forest.

As suggested, then, there are four knowledge contexts which are the relation of constitutive and regulative possibilities for both the community and the knowledge its' members produce.

1. Scholars in *regulative communities* can develop *regulative knowledge*. This is the traditional context in which fields develop incrementally within well-established paradigms or theoretically/empirically informed schools. While these areas grow in terms of the "agencies" of various human and machinic components, the goal is the stabilization of knowledge (14) by persons who, with a complementary set of scholarly interests, seek answers to research questions of acknowledged importance. This is the context that Kuhn and most other commentators assume, and which they unfortunately assume to be universal.

2. Scholars in *constitutive communities* can also develop *regulative knowledge*. This occurs when cohorts of scholars in a variety of fields or areas center around the work of theorists or schools of thought that pull them into similar logics. For example, persons in a variety of "disciplines" or areas study Piaget, or Kohlberg, or Kuhn, or critical perspectives as developed by Foucault. Concepts or theorists are treated in canonical fashion as they are "applied" to various "problematics" by persons in various locations.

3. Scholars in *regulative communities* can develop *constitutive knowledge*. This occurs when researchers in an area, such as higher education or the sociology of science, study an

issue by bringing together unique knowledge resources, that is, concepts, theories, and methodologies from a number of sources to frame and study the concern at hand. The focus is on the question, with the inventiveness of the scholar addressing others who examine similar questions from very different resources and choices.

4. Scholars in *constitutive communities* can develop *constitutive knowledge*. This occurs when individuals from a variety of locations come together to establish evolving understandings in a particular way. As an example, one might have feminist scholars develop an understanding that has both independent and interdependent sections on ways of doing professional work, such as teaching. The community of interest and understanding are organic, evolving, and this is reflected in various patterns of intersection.

In earlier work, this researcher has attempted to appreciate the meaning of these differences in terms of their implications for electronic publishing and to examine how they shape the nature of argumentation within and between scholars who live in these academic contexts (15, 16). There is work that establishes these distinctions through philosophic attention (e.g., 17, 9, 10). It can be argued, from a broad multidisciplinary base, that these distinctions are primary ones and that the particular labeling of the contingencies in this paper reflects alternatives that have universal meaning, though other scholars have used different language and examples in their areas to denote these alternatives. The question for what follows is, "What are the implications of alternative production in different kinds of academic communities for the meaning of misconduct?" If the community is attempting to appreciate what comprises misconduct one needs to understand the nature of the production within their communities for such an understanding to have value.

Scientific Misconduct Pluralised

Regulative Community/Regulative Knowledge. This context accounts for the observations made by those who are part of the historical and contemporary conversations with which we are familiar.

It is a voluminous set of materials which focuses on such domains as the traditional norms of science and adherence to them in practice; both current and historic examples of misconduct by figures who made foundational contributions (e.g., Newton, Pasteur), contributed significant work (e.g., Burt), and did normal science, all of which are treated in historical studies and journal, news and list-serv accounts; admonitions and suggestions regarding how the mechanisms of the scientific community (e.g., editors and peer reviewers) can act to be aware of misconduct reflected in submissions; how various stakeholders (e.g., lawyers, scientists) focus on different dimensions of misconduct and the actions of institutions (e.g., universities) in such instances; the debates regarding what misconduct includes in practice and the delimiting of the practices that are so situated, to include the on-going conversations sponsored by such organizations as the American Association for the Advancement of Science that provide for public reflection on the issues. There are many voices, from the philosophers, historians, and sociologists, to the aggrieved parties and those who are situated in different parts in the various dramas; to those who police the science community.

As one can note, the concern is primarily for the misguidance of the scientist, and there is limited attention to the community of science as playing a part in the perpetuation of misconduct. While the Public Health Service Report reflects a concern for the role of universities and professional societies and focuses attention on the "whistleblower" as she or he is treated by professional peers, the attention is on the producer of knowledge as an individual and not elements of the community (5).

For example, if a journal editor sends a manuscript out for external review to peers who do not share the methodological bias of the author or the reviewer comments on the paper in ways that suggests that he or she challenges the logic of the approach to inquiry used by the author, this would not be considered misconduct by either the editor or reviewer. Rather, it would be considered as poor judgment or bias, and the actors would have nothing to answer to in any special forum. A journal that fails to publish its policies and fails to send manuscript reviews to authors would not be cited for "killing" the scholar by denying opportunities for access. Trust, not justice, is the focus of the operant norms in this fully regulative sector, and the regulative community has little to answer to under this additional value. Interestingly, there is

a vital literature on how academics "cool out" their colleagues, either because they produce on the "margins" of accepted knowledge or because of gender (18). Practices of disciplinary bodies or forums, and scholars associated with them, are not considered as having relevance for attributions of misconduct. The actions of a majority or those who operate from power are hardly ever placed in such arenas.

Unfortunately, as well, the work on misconduct that has relevance for this context is assumed to be of value more generically. This allows us to ignore what is not normative in the other approaches to knowledge construction.

Constitutive Community/Regulative Knowledge. As noted above, in this context scholars from various disciplines, forming a colleague group, typically focus on the work of particular theorists, or the implications of particular macro concepts or worldviews. For example, this would include scholars from such fields as psychology, sociology, political science, education, social work, and others, engaging with the work of, say, Foucault and referencing colleagues who are similarly involved, rather than colleagues who share a disciplinary-derived designation, such as deviance in sociology, or analytical or mathematical geography.

It is of interest that the constituents are committed to certain ideas that often are in defensive contention with alternatives held by another cohort of scholars. Peers engage in discourse around which one finds a consensus, with argumentation around the fringes as implications and new application of well understood and frequently articulated ideas are evoked and borders are defended. What does it mean to plagiarize when proselytizing and self-affirmation are the orders of the day? The truth of work rests on a self-evident body of original conceptions and supporting material, such as that surrounding the Jungian foundation of the Myers-Briggs personality instrument. Advancing a set of concepts or worldview is the challenge, and the use of additional supporting material only aids the cause. This is not to say that it is appropriate to use someone else's work as one own. But, unlike the scholarship emerging from the previous location, this work is not so much the careful extension or articulation of a body of work growing on the edge of a well-prepared community, as it is the "answer" for viewing a concern. That is, since individual scholars evoke in their language certain commonly-noted truths, or notions, or meanings, one is repeating material, replicating others' language in which the constancy of the foundational work is repeated. If one uses the term "needs" or "paradigm", then the source is known, not only in terms of the original authors, but the wall of support behind the term. Those in the various fields who are using canonical concepts or theories would find little value in using the work of scholars in other fields who use the same literature, say by Piaget, since, it would have no applicability to their work in question. There is a "catechism," then, which like any canonical text comes from well recognized sources and which needs repeating, which migrates, as the parameters it asserts are firmly supported by peers. Growth occurs as additional applications and connections among key spokespersons are articulated and as peers defend and repair boundaries that support the difference "it" makes.

In the heuristic spirit of this paper, misconduct can take a number of forms among academic "true believers." First is the failure of the advocates to examine first principles. It is suggested here that it is inappropriate for a scholar to support and defend certain points of view without giving serious consideration to the origins and consequences of the point of view or scheme and to appreciate it in relation to alternatives. Presenting a persuasive or defensive case in reference to one's advocacy is a foundation that can be avoided by simply acknowledging the value of a work and identifying oneself through such association. It is done frequently, often by graduate students and then by those who find the pull of the network, or invisible college as less a call for excellence than a sinecure for the privilege of self-evident truth. Blind advocacy here is no less significant than being a true believer in any other context, and it has less a place in the academy than in other social institutions. It should be expected that one's agency and voice be earned, not by mimicking a rhetoric that one finds attractive, but by being able to articulate with others, especially those who reflect alternative perspectives, a logic that one has reasons to represent.

The second concern is about the nature of the argumentation that ensues. One may try to besmirch the other, to insult and shame the other, rather than challenge her or him on appropriate grounds. My study examining patterns of advocacy and defense in this context applied the labels "contention and fortification" to describe

the interactions across schools of thought around the same issues (16). At times, when reading the various protagonists, one could call forth an analogy from the larger society, namely, the no-holds-barred punching and kicking strong-person contests that seem to have captured some interests among fans in the larger community. Since one's identity is a function of "a point of view" or the viability of a particular body of work, one finds scholars needing to defend it by any means available. Some of the strategies include attributing motives to the other that she or he has not articulated; finding fault with the other because he or she did, or might have, read certain authors which the writer holds in disrepute; using hostile words in combination such that the rhetorical impact transcends their logical significance; and claiming others have alternative perspectives even when they gave no voice to such. The writer will allow the other view to survive, but in rather tender shape, because it is easier to support oneself by arguing against another view than doing so without an enemy. Simply put, members of constitutive communities working with and articulating regulative knowledge should make judgments on evidence and need not unfairly represent their positions or challenge alternatives or prevent their articulation.

It can be argued that the content of the regulative knowledge at issue is of some importance. There are academic "belief" systems that create inequities for others. Since theory often outstrips its empirical base, or creates the possibility of work that can only support the contentions of those involved, the impact of theoretical systems on life worlds needs attention—ideas which are removed from serious possibilities of destruction and upon which whole careers are based. Is it a matter of misconduct if one's scholarship creates obstacles to others' human rights—either in terms of their status possibilities or relative success? An example of such an obstacle would be the use of a Caucasion-normed personality instrument and associated theory to classify the development of African American students, especially when an instrument based on African American student growth and change is available. We are responsible for the worlds we create.

Regulative Community/Constitutive Knowledge. In this context, scholars from regulative communities, such as from within the sociology of science, develop an understanding of a topic by bringing theories, findings, concepts, and methodologies together that will enable her or him to understand an issue in a way that is deemed appropriate for the stakeholders involved. The titles of two articles, the first in *Configurations: A Journal of Literature, Science, and Technology*—(a journal title that itself makes the point)— "The Pathology of Painting: Tuberculosis as Metaphor in the Art Theory of Kazimir Malevich" and in *Social Studies of Science*—"Literary Genres and the Construction of Knowledge in Biology: Semantic Shifts and Scientific Change" are exemplars here. It is not unusual for a person to claim that he or she is a multi or interdisciplinarian, or some variant thereof. Typically, the questions being investigated are not of state-of-the-art significance to a subset of the academic community, but instead better reflect the unique interests of the involved scholars and present their special and idiosyncratic ways of dealing with approaches to questions that might be shared with peers.

Certainly authors can engage in falsification, fabrication, and plagiarism, and possibly with a lesser chance of being found out than one might were one in the fully regulative context. There is less concentration of similarly educated and concerned peers and a greater variety of folks who have different backgrounds and who roam the literatures and methodologies in seeking "fits" with their disciplinary and value-constituted dispositions. What in a more specific sense does this suggest regarding misconduct?

It is suggested that not recognizing and dealing with one's own constructions as constructions is "misconduct." That is, it is anormative to consider one's own construction as beyond reflexivity. Unlike work in the fully regulative environment, here there is no historical and progressive justification for a line of reasoning. Treating a solution to a problem as self evident, such that it is not justifying itself in relation to alternative treatments to the same or a similar problem, does not allow others to appreciate the added value that may accompany a way of understanding. So, while one can gauge the meaning of a work in the fully regulative context by its specific and its particular use of references, in this third context, such is not possible. There needs to be the willingness to justify the connections among the elements of a work and to engage in academic conversations, which interestingly enough, are regular features

of *Social Studies of Science*. Of course, others need to be willing to engage, and this suggests the need for relevant regulative communities to have a meta-language available so that persons from different vantage points can engage each other.

One might also suggest that it is cause for concern, that is, misconduct, when the scholar uses the work of others in ways that fundamentally change the elements such that the sources of origin would likely object to the implications of the uses of the work should the source have potential voice here, or when such objections are ignored. This use could reflect a number of possibilities, from the location of a work, that is, where it is used, and how the sources are modified in a new treatment. For example, today there is a major concern in the management literature on the concept of "resilience." Some relevant questions might be, "How can leaders have more of this?" "Do successful CEO's have this attribute?" In approaching these types of questions, a scholar uses narrative accounts of those who demonstrated resilience for their survival: returning POW's and those liberated from Nazi concentration camps. It can be argued that one dishonors the events and the lives of those who perniciously suffered to use their accounts as conversation pieces for a cocktail party, and to allow the CEO to think that he or she walks in the POW's shoes. Such use reflects back on the original stories. They are re-storied, and arguably, in ways that lessens their deeper meaning and the meaning of those who found themselves as unwilling participants.

It is also a concern when scholars do not allow their solutions to a problem to be engaged and modified through additional empirical and theoretical treatments. Certainly, the concatenation or assemblage of new material will allow each of the contributing pieces to develop alternative textures and tones, if not be challenged in new ways. A scholar who attempts to prevent such consequences, say, as a peer reviewer who also is the author of an earlier text that is being revised and does not allow another author to continue the development of or challenge to the work, could be considered to be acting in a way I would label "misconduct."

Constitutive Community/Constitutive Knowledge. In the fully constitutive context, we have a high degree of organicism as emergent forms and emergent knowledge continually develop in conjunction. There is a "collective integrity," to use Mary Ann Caws's term, with the consequence being greater illumination, which leads both to interactants' ensembling and external stakeholder mutual appreciation. Since, misconduct was originally defined within a fully regulative context, one might wonder if it has any applicability at all in this fully constitutive one (19).

Individuals in this context reveal themselves through conversation, narrative, anecdotes, personally situated histories, and engaged professional settings. They do not use rhetorical strategies to persuade, but attempt to present themselves as evolving, with the risks that such confession might have. They reveal how they have grown or changed through various encounters with persons with whom they engage in a scholarly way or with situations that provide environments for learning and action. It would seem that it would be a misconduct situation if one used the information so revealed for private gain, either as the author or the audience. One is expressing or bringing forth an emotive/affective connection to the rational material; values are clearly articulated, and a kind of privileged relationship is being established among the parties. While not referring to confidentiality in terms of content, here one should maintain confidentiality based on one's respect for the person who has revealed something that is "personal." Thus, to ridicule the narrative of another or to suggest one's superiority in terms of intelligence, motives, or values is antithetical to the orientation of this knowledge community. It freezes the logic of interaction and unnaturally shapes the content of the exchange.

It is also anormative in this context not to listen. Interestingly, hearing is the locus of interaction in this context, not seeing (20). So, not listening is misconduct, as would be those practices that chill the aural environment, such as intruding on others' exposition, translating a person's words into alternative words, attributing an exposition to a rationale or condition that has analytic rather than personalistic origins. For example, saying that this person speaks a certain way because she is of a certain psychological type is to reduce the individual's being to a set of variables and should be considered unethical.

Conclusion

Defining scientific misconduct and discussing examples and exemplars has become, if not

popular, then a more broadly based consideration than was evident even a few years ago. However, in spite of a great deal of commentary, we have failed to extend our considerations to issues regarding misconduct within various types of academic communities, especially those that are reflected in the social sciences. It is not enough to extend concepts having value in one domain of scholarship and then apply them conveniently to others. The social sciences and the humanities reflect alternatives that have meaning for misconduct, and not only the conduct of work. While academic communities have legitimate interests regarding fabrication, falsification, and plagiarism, there has been no previous attempt to go the basics and to consider what might be anormative for different ways of knowing in different settings, not in a methodological, but in an epistemological way.

This paper has attempted to explore "misconduct," with the explicit understanding that the ideas and possibilities discussed here are not presented as answers or solutions but as heuristic tools to carry the initial discussion. It is likely, even hoped, that what has been noted here will be revised in the continuing dialogue that transcends these notions and goes to deeper and more critical hearts of the matter. And for that conversation to be based on research would allow for such engagement.

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