



HAL
open science

A diplomatic view for research integrity

Sarah Carvallo

► **To cite this version:**

Sarah Carvallo. A diplomatic view for research integrity. Integrity sciences. A Call to Research and Action, Globethics Publications, pp.79-100, 2023. halshs-04246399

HAL Id: halshs-04246399

<https://shs.hal.science/halshs-04246399>

Submitted on 17 Oct 2023

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

A diplomatic view for research integrity

Sarah Carvalho Professeure de philosophie des sciences Laboratoire Logiques de l'Agir – université Franche-Comté IHRIM UMR 5317 ENS Lyon

1. Introduction

Ethics is a thick concept, in the way that it involves an irreducible hierarchy of values and significations, which are structured within a determined cultural background. Within ethics there are key concepts – such as freedom or justice – which seem to support an international consensus (Walzer, 1994). Integrity is one of those key concepts within the field of ethics applied to research. As we all agree for freedom or justice, every scientist agree for integrity. But do we really know to what extent we are agreeing? If we can give negative definitions of those key concepts (freedom – no slavery or no dictatorship, justice – no corruption, or integrity – no Fraud Falsification Plagiarism, or FFP), nobody is able to explicit precisely their meaning neither to create consensus on their interpretation, as they imply different and incompatible worldviews. Neoliberalism, Socialism or Marxism give different interpretation of freedom and justice. It may be the same case for research integrity : if there is no way to have ethics without integrity; nevertheless, research integrity is neither foundation of ethics, nor does it replace ethics: it impacts research, if and only if it finds ways to make sense with searchers' ethics *hic and nunc*, through the diversity of their cultures, their subjects and their institutions. In this perspective, integrity contributes to the theoretical thickness of ethics: this situation does not condemn it to relativism or nihilism, but it explains why it is difficult to agree to its interpretation and why ethics is irreducible to codes or unequivocal injunctions. It opens a hermeneutic work and calls for discriminating intelligence of values, injunctions and interdictions involved in research. The cultural thickness of a country, of a language, of a scientific discipline or of a research establishment encompasses some intrinsic values which characterize the singularity of a complex symbolic structure. Therefore, each searcher must assess the issues of his or her research in his or her domain, in his or her institution, in his or her culture. Because there is no consensus in the matter of values, the scientist must assume his or her choices: this position requires to assume responsibility and reflexivity.

Regarding this thickness, on the first hand, integrity seems to rest on universal injunctions which are effective everywhere around the globe as for the prohibition of incest, of murder, of torture...: those universal obligations are transcribed into codes and charters, which are summarized through three prohibitions: no fraud, no falsification, no plagiarism. It looks for preserving and stand up for research face to certain acts potentially dangerous (Neves 2018, p. 182). Following this universal interpretation of research integrity, it should answer unequivocally to the peer international consensus who agree on necessary rules – in the absence of being sufficient – so that a project can be recognized as scientific. In this way, it should express consensual criteria of what should be research, whatever subjects, institutions, country and culture are. Of course, it does not exhaust the whole issues of research, but it determines its hard core: without this necessary condition a work is not scientific research. It should not be the place of interpretation, but of application. It should apply everywhere, and its criteria would be consistent in every culture. Consequently, for some scientists, there would be a frontier between ethics and integrity. Thus Pierre Corvol (2016) writes: “Research integrity is not question of moral, but it is founded on universal moral principles, following which one should not lye, rub... research integrity must not be discussed. Everyone must respect it: it's a

professional code of conduct...” This declaration supposes a clear distinction between ethics which is dependent on culture and integrity which would be universal¹.

But, on the second hand, research integrity internalizes a deep tension within the globalization of science facing to the plurality of subjects, cultures and institutions. This tension characterizes the interculturality issue at two levels: the first one concerning local cultures, the second specific disciplines. Globalized, international *de facto*, science is challenged by the difficulty of its universal legitimacy: research integrity should be its warranty, but it doesn't succeed to conciliate any universal legitimacy. If there are international organizations defending research integrity, can they pretend to universally legitimate? They must indeed admit the plurality within disciplinary researches, cultures and institutions and give some place to hermeneutical interpretation. Even if international declarations and research integrity offices try to impose it as a consubstantial hard core for science, or as a metaculture, they are contested. Their relative failure to impose clear norms and to implement research integrity at an international level does not reduce only to a factual problem.

In this paper, we defend a conceptual and practical distinction between science which is universal, and research integrity which is international. In order to understand and assume this tension between a universal science and an international research integrity, we propose to deploy research integrity as a diplomacy, i.e. a network of translations between several scientific modalities.

2. Science in the light of universal culture?

Scientific globalization internalizes a tension: does it refer to an intrinsic horizon, which would suppose that science is universal, then able to go over cultural particularities, or does it correspond only to a state of affairs which impose standardized ways of doing through a common language, common tools and structures (universities, calls for projects, publications)? This problem precedes and determines research integrity's issue. It qualifies an epistemic and anthropological question in philosophy of sciences, a question that addressed Max Weber (1904-5) in his analysis of western civilization when he was considering that European modernity was characterized by scientific and economic rationality and would shape the horizon of any culture: only in the West does valid science exist². This thesis has been criticized on both levels: on the anthropological one (Goody, 1979; Goody, 2010; Taylor, 1995) and on the epistemic one (Dupré, 1993; Hacking, 1983; Lacey, 2005). In both cases, critics champion science as pluralism, depending on cultural particular contexts (in both sense of various traditions and several subjects), without considering that pluralism would clash with scientific universality.

For lack of space, we will focus on an emblematic case: geometry. Do mathematics support cultural pluralism without ruining their own universality? Karine Chemla (2007) has compared the Pythagoras' theorem's demonstration in Greek antiquity with the procedure of Gou Gu's construction in the Chinese antiquity. Following Weber, there is only one way of doing mathematics; this way has been developed in Western and justifies the fact of learning western mathematics all around the world. In this case, the Gou Gu procedure is not really a

¹ Please note that in English “ethics” does not distinguish professional deontology from ethics founded on practical norms and from personal moral. By extension, various disciplines – among them medicine – use the word of ethics concerning professional deontology (Bergadaà, 2004). In other terms, when there are ethics codes, there is often a confusion between ethics and deontology.

² Weber, 1991 [1904-5] – Foreword.

demonstration and does not prove a theorem, because it deals with a particular case of triangle (which base – *gou* – is 3 chi and height – *gu* – 4 chi). Or is it the *same* demonstration following two distinct ways? The comparative study concludes that it is the *same* theorem, if you doesn't presume the European monopoly on science and rationality.

This particular case corresponds to the general issue raised by ethnohistories (Ascher, 2002; Chemillier, 2007): how to recognize what is geometry, when it takes so different shapes in other cultures, e.g. string games, mandalas or drawings on sand? And this problem refers in its turn to the cultural conditions under which science develops: why, for example, during Antiquity, science did not develop so fast in China as in Europe, while it was at least as advanced in East as in West, and considering that the Chinese had already at their disposal printing? Scientist, Sinologist, historian of antic and modern sciences in China, Joseph Needham (1956) explains this difference by the two sorts of cultural conditions. Europeans value science as an essential issue in relationship with a certain conception of truth and power: thus, practicing science benefits from a high social, institutional and symbolic recognition. Meanwhile Chinese people value rather poetry and political sciences; they do not add value to discoveries or scientific professions (Cheng, 2007; Zhao, 2011). Additionally, they are rather interested in practical sciences in relationship with their own historical context (e.g. seismology, botany, medicine). More generally, historical studies have shown that there are national styles in scientific research (Nye, 1993; Harwood, 1993). Even if it is universal, science can not abstract from its cultural dimension. Contemporary scientists often forget it and conflate both dimensions, universal and international. Therefore, it is consistent that research integrity faces necessary to the intercultural question at that very moment, when it tries to enact international norms, at the risk of conflating universal and international.

A lot of institutions promote indeed international charters: are they now universal, in the same way as science is? This ambiguous pretention takes its roots in medical ethics as soon as the Nuremberg Code (1947), which assumes a view on mankind, supposed to be universal, in concert with the promulgation of the universal declaration of human rights in 1948 (Carvalho, 2018). Promoted by the World medical Association and updated several times, the Helsinki Declaration (1964) internationalizes ethical criteria for research and considers its own particular conceptions as universal. The Belmont Report (National Commission, 1979) proposes four principles supposedly universal – respect for persons, benevolence, justice, non-maleficence – in order to give a structure and some rules to research and cure with human persons (Beauchamp & Childress, 1979). Because it pretends to be founded on a neutral conception of the human being, this principlist approach is meant to go beyond cultural differences and values (Gillon, 1994, p. 188). You may find it again in all international guidelines and good practices for biomedical research concerning human beings (International Ethical Guidelines for Biomedical Research Involving Human Subjects) promoted by the Council for International Organizations of Medical Sciences (CIOMS) in 2002 and 2016). In 2005, it leads to the universal Declaration on bioethics and human rights by the United Nations Educational, Scientific and Cultural Organization (Unesco, 2017). This conception of universality has been hardly contested in the ethics realm as a drift (Haggerty, 2004) or a new form of imperialism which imposes a western viewpoint of the rational autonomous individual (Schrag, 2010). Yet the research integrity has recovered this principlist approach and formulated international criteria for research without pretending to establish the agent virtues, but only his or her duties as researcher. On the one hand, in comparison with bioethics, as it has abandoned the domain of values, it has restrained its own field in order to consider only the duties. But on the other hand, it has opened and extended it, in the sense that research integrity pretends to deal with all the subjects (human and social sciences or natural sciences).

During the same period, the whole research community has become aware of misconducts; informed investigations have been led in the field (Broad & Wade, 1982; Martinson *et al.*, 2005; Anderson *et al.*, 2007; Anderson *et al.*, 2013). The World Conference on research integrity (WCRIF) aims at gathering researchers coming from all the countries all around the world and from every discipline in order to identify consensual international criteria against misconducts, such as honesty, responsibility, professional courtesy, impartiality and good administration of research, with additional fourteen other professional responsibilities (Singapore Statement on Research Integrity, WCRIF 2010). In 2007, this conference has highlighted how important it was to clarify and publish standards promoting good practices and procedures allowing to identify bad practices (Mayer & Steneck, 2007, p. 1). At the European scale, European Academies (All European Academies) enact a code of conduct referring to reliability, honesty, respect and responsibility. At a theoretical level, Resnik (2009) justifies the need of international criteria in order to bring research into line with high value norms and making advancement in research practices to convert bad ones in good ones. He enlists four arguments: 1) if science is international, so we need criteria able to overpass national frontiers in case of disagreements between researchers coming from different countries; 2) in absence of local criteria, researchers can and must refer to international criteria; 3) the presence of international criteria will enhance the development of local criteria; 4) those criteria contribute to enlarge the trust between scientists working in different national environments. Therefore, there is need for a written document which can be used as a reference at the international, national, local scales and for all subjects.

Nevertheless, this worry about international univocity is facing to two difficulties linked with the original confusion between international and universal. First, when a concept such as research integrity tries to enlarge its extension, it is running the risk of losing in intension. Kathinka Evers (2003) shows indeed how the analytic trap may ruin the project of a universal and definitive description of research integrity. The more one searches for a consensus about general norms, the more one is compelled to reduce its substantial claims, because they always refer to the specificity of each subject and culture. Second, even if we may suppose that there are some common norms for all scientists as scientists, the fact remains that the sense of responsibility, plagiarism or the very definition of misconduct change following the cultures. Let conclude. As it concerns research practices, research integrity can not purport to be universal in the very same meaning as mathematics are. But as science is not only universal, but also international – a distinguishing feature for science as a historical reality since the end of the second world war – research integrity must be international. How?

3. An accepted plurality

Many studies show that scientific integrity conceived as an international ethical norm forms are often not set up properly to meet the reality of research. The explanation is easy: norm comes under the reference jurisdiction, meanwhile integrity pretends to overpass the cultural particularities. Thus, Resnik and his colleagues compare national regulations and observe considerable disparities between definitions of misconduct in research. A regulation gap exists between the European union, Japan and United States concerning the post-marketing investigation about drugs (Urushihara, Parmenter, Tashiro *et al.*, 2017). The PRINTEGER project investigates documents and laws within several countries, members of the European Union, and concludes that the notions of research integrity and misconduct change according to the countries regarding their definitions, their field of application and their extent (Fuster & Gutwirth, 2016). In 2019, the French Senate carries out a comparative survey concerning the research integrity's definition and organization between France, Denmark, Italy, Germany and

Netherlands³. The report explains the diversity of choices done by the variety of the organizational and legal cultures of each state, but also by the temporality of implementation for their own system dedicated to research integrity. The ancient legislation and organization shape more recent orientations. Two countries have indeed chosen the legal approach: Italy updates a penal law dating from 1925; in case of plagiarism, it assigned a punishment with reclusion. Engaged in a regulation concerning failures of the research integrity since 1992, Denmark enacted a law about research dishonesty in 2017. The three other countries prefer the contractual approach. In 2018, the Netherlands published a code “strict in its legal writing, precise in its prescriptions, worrying about distinguishing between the personal obligations of each researcher in his or her own field and the collective responsibilities of institutions. Germany favors a model of engagement, when calls for projects are submitted through the German foundation for research (Deutsche Forschungsgemeinschaft, DFG), an original institution in the field of research, as it is not a state institution but a non-profit organization. The United Kingdom favors a flexible model of self-regulation (an agreement on research integrity) coordinated by the Conference of British universities (UK Research Integrity Office, UKRIO). Considering that, for the moment, there is no legal definition of research integrity, France applies a national policy, with frames of reference, referees, and a research integrity office (Office français de l’intégrité scientifique, OFIS⁴), in order to supervise the implementation of international standards. A subject of discussion concerns the real independency of the OFIS towards the HCERES (Haut conseil de l’évaluation de la recherche et de l’enseignement supérieur), the organization dedicated to the evaluation of research, inasmuch the OFIS is a department of the HCERES (Henriet *et al.*, 2020).

This diversity between countries intensifies in variations between subjects and professions implied in research. Does research integrity regard in the same way musicology, mathematics, medicine, literature, engineering sciences, anthropology, informatics, philosophy, economics, laws, archeology, etc.? Of course, one may admit that each discipline requires respect for research integrity, but does it remain the same through the variety of subjects? We may notice first that even the scientific nature of each subject is not defined unequivocally: sure, they are all academic, in the sense that they are taught at University (following the German definition of science as *Wissenschaft*, i.e. academic topic Readings 1996), but we would struggle to define a common method. Incidentally, some fields don’t claim to be science: for example, the scientific nature of philosophy is still under discussion. Moreover it is not clear if it has to do with social sciences, or not (König-Pralong, 2017; Calafat *et al.*, 2013)? And there are also strong cultural differences: is there a French or a German philosophy (Fabiani, 2010)? In the same perspective, since the XIXth century, an important debate divides economics: under which conditions is it a science (Boyer, 2015)? From his implication in European research projects, Ron Iphofen (2020) highlights a kind of anesthesia amongst the economists regarding their responsibility, meanwhile their results inform political decisions. Is it really honest that the great majority of economists share the same ideological posture? Does this unanimous theoretical choice question the reliability of their works, in the absence of discussions for and against within the economical community? It highlights also a deep tension between public official assertion in favor of research integrity and the efficiency of the publish or perish injunction: “*Unless the important academic journals assess this routinely (with sanctionable consequences), the profession is unlikely to change given that “publish or perish” acts as an*

³ <http://www.senat.fr/lc/lc288/lc2880.html>

⁴ OFIS, <https://www.hceres.fr/fr/ofis>

overriding incentive.” (Iphofen, 2020, p. 743). The dishonesty risk awareness changes following the fields. If physicians are aware from a long time of those injunctions, particularly because they were confronted with serious scandals, this is not the case in all the fields.

Other difficulties appear, when politics and media meddle in science, as we observed recently during the Covid19 pandemics when the French government and some foreigner presidents get involved in scientific orientations (London and al. 2020). In France, the recent affair concerning Professor Didier Raoult about the treatment by hydroxychloroquine for Covid19 raised a triple tension between medical deontology, research ethics and research integrity (Henriet, Ouzoulias & Longuet, 2020) in a context where science could no more function autonomously. On the integrity side, the fact that he signs more than 3500 papers raised the question of the legitimacy of his signature⁵, the quality of his publications, the holding multiple posts and conflicts of interests (belonging to the editorial committee and publishing in the same review). On a democratic point of view about science as a public institution, a question concerns the legitimacy of the incentive by the bibliometric system Sigaps (Système d’interrogation de gestion, d’analyse des publications scientifiques) used in order to calculate ministerial grants for university hospital, because the AP-HM (Public Assistance – Marseille’s Hospital) or the IHU Méditerranée (University-Hospital Institute of Méditerranée) receive national grants depending directly on Raoult’s notoriety and Impact factor. For his own point of view, Didier Raoult has blamed the partiality of medical research, which is partially founded by pharmaceutical laboratories. Even if they focus on individuals, those questions overpass in fact particular or personal cases and concern the whole system of medical research. And we must admit, that during a few weeks of the sanitary crisis, research integrity seemed to most people secondary in comparison to the pandemic emergency (Maisonneuve, 2021). More generally speaking, as soon as researches are interesting for several social agents (government, journalists, organizations, firms), the research integrity criteria are severely tested.

4. Means of recourse

Three ways are possible in order to reconcile research integrity and cultures (traditional ones or disciplinary ones).

The first option corresponds to the choice made by the big research organizations: enacting ethical international norms, which make reference, instituting international and national offices and observatories, establishing ombudsmen or referees on the international, national and local levels, implementing systems of penalties within the research institutions. This option is surely the more obvious and the easiest; it is implemented since 2007. But, as we have seen, this approach is not sufficient and encounters a major difficulty about harmonization. At the national and local scales, definitions and legislations are sometimes not congruent; the disciplinary measures or the national and local actions may be discordant. Even if there are some calls for harmonizing rules within the pharmaceutical domain (International Council for Harmonization of Technical Requirements for Pharmaceuticals for Human Use (ICH, 2016);

⁵ <https://www.nature.com/articles/d41586-021-01246-x>; <https://theconversation.com/etre-juge-et-partie-ou-comment-controler-une-revue-scientifique-140595>; www.wired.com/story/the-science-of-this-pandemic-is-moving-at-dangerous-speeds/.

Molzon *et al.*, 2011), genomics (Townend, 2018), nano-medicine, or the regulation of scientific data – particularly genetic data – it is evident that the differences are still persisting at the international level. Thus, the data protection develops and moves apart in Europe, the United States or China. Of course, the European union tries to harmonize the regulation within the academic European network, but discrepancies increase at the international level with serious financial and legal issues; therefore, very different duties fall to the searchers and the research organizations following the world areas.

The second option consists in making research integrity as a scientific culture which should be shared by every researcher, a kind of deontological metaculture which would figure the common melting pot for all the disciplinary or traditional cultures. This approach emphasizes the research agents' responsibility: they must be formed and trained to assume their own duties not only in terms of academic excellence, but also in terms of honesty, responsibility, impartiality, professional courtesy. Developing those professional soft skills would allow to stand out from a logic based on supervision and sanction, by establishing behaviors spontaneously respectful for rules. *Mutatis mutandis* there would be a kind of *ethos*, a set of professional norms in the way described by Merton ([1942] 1973), when he generalized his historical study on the Royal Society of Sciences in London at the seventeenth century to science by itself: communalism, universalism, organized skepticism, disinterest. By *ethos*, Merton does not mean an ethics, but some rules imposed by the scientific community: each researcher must observe them, or be subject to sanction. If deviance exists, and therefore deviant agents, the scientific community is in charge of regulating, setting things right, even excluding deviant scientists. But did this *ethos* ever exist? Doesn't it shape an ideal, the image that scientists project about what they would like to be? And sometimes ideals are counterproductive.

In order to test this claim for a scientific *ethos*, some surveys investigate if, concretely, deviances occur rarely and, therefore don't call into question the general description of science promoted by Merton, or if they occur frequently (Mitroff, 1974; Martinson *et al.*, 2005; Anderson *et al.*, 2007b; Anderson *et al.*, 2007a; Galbraith, 2017). The investigation on scientists' ordinary behaviors signal a sufficient frequency that prohibits to consider misconduct only as an accident. Moreover, those same studies show that misconducts are not always punished. At last, today's surveys highlight that the current conditions of concurrence, urgency, excellence and the double bind's situations where individuals and teams are working strengthen the risks of misconducts (Fanelli, 2010; Chatelain-Ponroy *et al.*, 2017). Anyway, transforming the scientific culture can not result from a decision from the top, and should no doubt imply a global and radical approach, for example such as slowing down science and organizing in other ways the use of scientific data (Chneiweiss *et al.*, 2017), as Sabina Leonelli (2019) highlights it from her field surveys on data, when she claims for a slow science.

The third option seems us more promising. It would aim at introducing a kind of diplomacy between researchers, teams and institutions. Maintaining diplomatic relations doesn't imply self-imposing others' criteria, but rather accepting to listen to what others want to tell us from themselves and from us following their own viewpoint. This attitude requires renouncing to the sovereignty model: nobody knows how to do. Research integrity is not universal a priori by itself, but shapes a horizon to build together by assuming the plurality of science. Of course, research integrity – in the meaning of a set of consensual criteria – is international, but it is not universal. It looks rather like Globish – global English (Nerrière, 2006) – which is neither the British language, nor a universal language such as mathematics, but expresses a ratio of power, historically and politically established in the scientific and economic fields at the global level

(Sharma, 2013). Globalized language, the Globish is used as a bartering system between languages and translations, but it distorts them also, at first the English itself. Research integrity creates a platform for discussions; yet we should at least discuss. This is the issue for diplomacy: accepting to listen and to understand why scientists resort to misconducts in such or such context. Accepting that they are diplomatic crisis, for example, when a searcher transgresses the pact, such as Olivier Voinnet at the CNRS (French National center for scientific research) and École polytechnique fédérale de Zurich: this crisis doesn't concern only one individual, but the whole institution, without forgetting the scientific reviews – even the most famous – and the international scientific community. Implementing an interpreter's strategy requires to learn how to think from the viewpoint of the others. This diplomatic approach demands to recognize the research integrity's thickness.

Being diplomate means to endorse the idea of irreducible differences (differences of local cultures or of subjects, discrepancies of interests) and try to build some spheres of consensus, which are neither always exactly the same, nor uniform according to the various geopolitical scales. It implies to learn some lessons from cultural anthropology. There are various levels of thickness within human phenomena, which do never reduce to mere natural or physical facts (Descombes, 2002). If, as said Aristoteles, fire burns everywhere in the same way, in Persia as in Greece, values, norms and laws always settle in a particular history and society, which give them their specific thickness, which is still irreducible. There may be a thin description of burn, but not of traditions or laws, which always involve a hermeneutical approach.

Conclusion

We are integer or dishonest neither *naturally nor necessary*, but intentionally: we do have the intention of being integer or dishonest. Otherwise, in case of fraud, falsification or plagiarism, there will be no fault, but only an error. This intention requires interpretation: what is the intentionality of the agent? Georges Ryle (1949), an analytic philosopher of mind, proposes to distinguish between thick and thin concepts in order to link together two levels of the action through three examples.

- Let consider two boys blinking: the first one because he is suffering from twitches, the second one because he wants to give a signal. It is the same blinking; the eyelid makes the same movement; but it has two distinct meanings. Understanding the first one means to rely it to its very cause, i.e. to explain it; understanding the second one means to relate it to an intention, which necessarily engages a part of interpretation. The observer doesn't know a priori if this blinking is a twitch or a signal: he must identify the intention. When the boy blinks in order to communicate, he doesn't make two different actions (blinking and communicating), but the very same action.
- Let now consider two persons who are thinking: the tennis player concentrates on the gesture he is making, meanwhile the *Thinker* of Rodin seems to extract himself from his urgent tasks in order to think. In the first case, the thought is for playing; in the second one, it is its own goal. By analogy, research integrity is for the science; it doesn't define some other or higher goals for science, but the mere necessary conditions which permit science to develop for a long term; when the scientist is respecting research integrity, its intention looks like the tennis player. In the same perspective, ethics introduces values, which may prohibit or orientate researches towards specific subjects or goals – let think for example to the field of research concerning gender which has grown so fast during those fifty last years, or actually the research on SARS-CoV-2.

There is a distinction of thickness between research integrity and ethics, but both are thick.

- In the third example, Ryle stages a soldier and his officer who orders to lower his weapon. The soldier doesn't lower his arms because of a cramp; the officer doesn't ask to obey in general. Here obedience recovers a specific content and may be assessed only regarding this specific content. The soldier's obedience implies two dimensions: the act of lowering his weapon, the relationship between the officer and the soldier who assumes his submission to the military authority. In other words, the act makes sense only under the condition of the obligation to obey. But nobody can obey in absolute terms. Lowering his weapon when the officer calls for it requires first to internalize the relationship of obedience/authority which binds together the soldier and the officer. And the soldier may disobey whenever; sometimes, he even must disobey for higher reasons which have to do with ethics. There is a thickness of the gesture. This also applies to research integrity: not to fraud, falsify or plagiarize doesn't describe an intrinsic property of research; someone may break the interdiction; and the interdictions are relevant only in practical and local situations depending on the disciplinary field. Not to fraud, not to falsify, not to plagiarize in philosophy or in biology, in mathematics or in chemistry, in archeology or in literature, may look quite different in each case. There is a thickness of research practices, which nevertheless always imply to have learned first what means research, as someone learns why to obey. Those three examples show that research may be described at different levels: research can never be reduced to a reflex or a mere fact. It always implies intentions, but those have not to do with the same issues. So, we must distinguish research integrity which requires the intention in the service of research, and ethics which recovers the consideration of other values than mere research by itself.

Research integrity is not universal in the same way as mathematics, but it expresses itself through international rules. No ongoing monitoring or administrative penalty may warrant from outside or from above that a laboratory practice or a publication will respect the research rules. Peers must get involved in identifying and establishing the criteria when they analyze the thickness of research practices. As the anthropologist interprets the blinking or the soldier's behavior, the peers must understand research practices within the specific culture of a discipline, a country or an institution. Here are the issues for diplomacy: how shall we build a common world through our diverging interests and different cultures? If conflicts between (local or disciplinary) cultures, if financial pressure, if legal regulations and obligation towards research integrity generate contradictory duties, those tensions weaken the whole system. This is a risk for research. Diplomacy doesn't pretend overtax/superadd behaviors in imposing an international justice which indeed has no competency and has no means to be imposed. It should better try to identify the potential risks raised by internal contradictions and to adjust some ways of mediation. There is none international court for ethics. Between research integrity and ethics, there is no difference of nature, but only of degree between levels of thickness. Interculturality does not mean a danger for research integrity, but a principle of reality which requires to quit an idealist or nationalist view of science in order to implement research policies sufficiently aware of disciplinary and cultural diversity. In this view, diplomacy may contribute to develop rightful knowledges, in the double meaning of accuracy or correctness and of justice and respect of rights.

Bibliography

2nd World Conference on Research Integrity. (2010). *Singapore Statement on Research Integrity*. <https://wcrif.org/guidance/singapore-statement>

Anderson, M. S., Martinson, B. C. & De Vries, R. (2007). Normative dissonance in science: Results from a national survey of US Scientists. *Journal of Empirical Research on Human Research Ethics: JERHRE*, 2(4), 3-14. <https://doi.org/10.1525/jer.2007.2.4.3>

Anderson, M. S., Shaw, M. A., Steneck, N. H., Konkle, E. & Kamata, T. (2013). Research Integrity and Misconduct in the Academic Profession. Dans M. B. Paulsen (Éd.), *Higher Education: Handbook of Theory and Research: Volume 28* (pp. 217-261). Springer Netherlands. https://doi.org/10.1007/978-94-007-5836-0_5

Ascher, M. (2002). *Mathematics Elsewhere: An Exploration of Ideas Across Cultures*. Princeton University Press.

Beauchamp, T. L. & Childress, J. F. (1979). *Principles of biomedical ethics*. Oxford University Press.

Bergadaà, M. (2004). Évolution de l'épistémè économique et sociale : Proposition d'un cadre de morale, de déontologie, d'éthique et de responsabilité pour le marketer. *Recherche et Applications En Marketing*, 19(1), 55-72. <https://doi.org/10.1177/076737010401900104>

Calafat, G., Lavergne, C. & Monnet, É. (2013). Philosophies et sciences sociales : Les enjeux de la conversion. *Tracés*, #13, 7-25. <https://doi.org/10.4000/traces.5684>

Carvallo, S. (2018). Enjeux transculturels de la mondialisation. Dans D. Bottineau, M. di Tillo Lacruz, & J. Eschenauer (Éds.), *L'ingénieur citoyen : Synergies entre les langues-cultures et les sciences humaines dans la formation de l'ingénieur du XXI^e siècle*. Presses des Ponts.

Chatelain-Ponroy S., Mignot-Gérard S., Musselin C., Sponem S. (2017). Is Commitment to Performance-Based Management Compatible with Commitment to University “Publicness”? Academics’ Values in French Universities, *Organization Studies*, (00), 1-25.

Chemillier, M. (2007). *Les mathématiques naturelles*. Jacob.

Chemla, K. (2007). Penser sur la science avec les mathématiques de la Chine ancienne. Dans A. Cheng (Éd.), *La pensée en Chine aujourd’hui* (pp. 374- 380). Gallimard.

Cheng A. (dir.). (2007). *La pensée en Chine aujourd’hui*. Gallimard, 2007.

Commission nationale pour la Protection des sujets humains dans le cadre de la recherche biomédicale et behavioriste. (1979). *Rapport Belmont : Principes éthiques et directives concernant la protection des sujets humains dans le cadre de la recherche*.

<http://www.frqsc.gouv.qc.ca/documents/10191/186011/>

[Rapport_Belmont_1974.pdf/511806ff-69c4-4520-a8f8-7d7f432a47ff](http://www.frqsc.gouv.qc.ca/documents/10191/186011/Rapport_Belmont_1974.pdf/511806ff-69c4-4520-a8f8-7d7f432a47ff)

Corvol, P. (2016). Bilan et propositions de mise en œuvre de la charte nationale d’intégrité scientifique. Remise du rapport à Thierry Mandon, secrétaire d’État chargé de l’Enseignement supérieur et de la Recherche]. <https://www.univ-paris13.fr/wp-content/uploads/D-3-Rapport-Corvol-juin2016.pdf>

Déclaration universelle des droits de l’Homme. 1948. <https://www.un.org/fr/universal-declaration-human-rights/>

Dupré, J. (1993). *The Disorder of Things: Metaphysical Foundations of the Disunity of Science*. Harvard University Press.

Fabiani, J.-L. (2010). *Qu’est-ce qu’un philosophe français? La vie sociale des concepts (1880-1980)*. Éditions de l’École des Hautes Études en Sciences Sociales.

Fanelli D. (2010). Do pressures to publish increase scientists’ bias? An empirical support from US States data. *PLoS One*, 5(4), e10271.

Fuster, G. G. & Gutwirth, S. (2016). *Promoting integrity as an integral dimension of excellence in research. D II.4 Legal analysis* (p. 26). <https://print-eu.eu/wp-content/uploads/2017/02/D2.4.pdf>. <https://doi.org/10.15420/ecr.2016.11.2.123>

Gillon, R. (1994). Medical ethics: Four principles plus attention to scope. *BMJ : British Medical Journal*, 309(6948), 184-188. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2540719/>

Goody, J. (1977). *Production and reproduction: a comparative study of the domestic domain*. London, Cambridge University Press, 1977.

Goody, J. (2006). *The theft of history*. New York: Cambridge University Press.

Hacking, I. (1983). *Representing and Intervening: Introductory Topics in the Philosophy of Natural Science*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511814563>

Harwood, J. (1993). *Styles of Scientific Thought: The German Genetics Community, 1900-1933* (1st edition). University of Chicago Press.

Henriet, P., Ouzoulias, P. & Longuet, G. (2020). Office parlementaire d'évaluation des choix scientifiques et technologiques – Communication de MM. Pierre Henriet, député, et Pierre Ouzoulias, sénateur, sur leur rapport Intégrité et publications scientifiques. ...Compte rendu n° 77, 9 juillet 2020. Consulté le 17 décembre 2020, à l'adresse https://www.assemblee-nationale.fr/dyn/15/comptes-rendus/ots/115ots1920077_compte-rendu

ICH - International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (2020). *Harmonisation for Better Health*. <https://www.ich.org/page/mission>

Iphofen, Ron, ed. 2020. *Handbook of Research Ethics and Scientific Integrity*. Springer International Publishing. <https://www.springer.com/gp/book/9783030167585>.

Kellert, S. H., Longino, H. E. & Waters, C. K. (Éds.). (2006). *Scientific Pluralism*. University of Minnesota Press.

König-Pralong, C. (2017). L'histoire de la philosophie appartient-elle au champ des sciences humaines et sociales ? *Revue d'histoire des sciences humaines*, 30, 49-70. <https://doi.org/10.4000/rhsh.506>

Lacey, H. (2005). *Values and Objectivity in Science: The Current Controversy about Transgenic Crops*. Lexington Books.

Leonelli, S. *Data-centric biology. A philosophical study*. Chicago: Chicago university press (2016), MIMESIS. on Books

London, Alex, Kimmelman, Jonathan, "Against pandemic research exceptionalism", *Science*, 01 May 2020

www.wired.com/story/the-science-of-this-pandemic-is-moving-at-dangerous-speeds/.

Maisonneuve, H. (2021). Peut-on diminuer les standards de publication en période de pandémie. Dans M. Bergadaà & P. Peixoto (dir.), *L'urgence de l'intégrité académique*. Coll. Questions de société. Éditions EMS, xxx-xxx

Martinson, B. C., Anderson, M. S. & de Vries, R. (2005). Scientists behaving badly. *Nature*, 435(7043), 737-738. <https://doi.org/10.1038/435737a>

Merton, R. K. [1942] (1973). The Normative Structure of Science. In R. K. Merton (Éd.), *The sociology of science: Theoretical and empirical investigations* (p. 267-278). University of Chicago Press. <https://eclass.uoa.gr/mod-ules/document/file.php/PHS437/Merton%20-%20The%20Normative%20Structure%20of%20Science.pdf>

Mitroff, I. I. (1974). *The subjective side of science: A philosophical inquiry into the psychology of the Apollo moon scientists* (1st edition). Elsevier.

Molzon, J. A., Giaquinto, A., Lindstrom, L., Tominaga, T., Ward, M., Doerr, P., Hunt, L. & Rago, L. (2011). The Value and Benefits of the International Conference on Harmonisation to Drug Regulatory Authorities: Advancing Harmonization for Better Public Health. *Clinical Pharmacology & Therapeutics*, 89(4), 503-512. <https://doi.org/10.1038/clpt.2011.10>

Needham, J. (1956). *Science and Civilisation in China, Vol. 2, History of Scientific Thought*. Cambridge University Press.

Nerrière, J.-P. (2006). *Parlez globish! Don't speak English—*. Eyrolles.

Neves, M. do C. P. (2018). On (scientific) integrity: Conceptual clarification. *Medicine, Health Care and Philosophy*, 21(2), 181-187. <https://doi.org/10.1007/s11019-017-9796-8>

Nye, M. J. (1993). National Styles? French and English Chemistry in the Nineteenth and Early Twentieth Centuries. *Osiris*, 8, 30-49. <https://www.jstor.org/stable/301694>

Readings, B. (1996). *The University in Ruins*. Harvard University Press.

Resnik, D. B. (2009). International standards for research integrity: An idea whose time has come? *Accountability in Research*, 16(4), 218-228. <https://doi.org/10.1080/08989620903065350>

Ryle, G. (1949). *The concept of mind*. Hutchinson's University Library. <http://catalog.hathitrust.org/api/volumes/oclc/59071182.html>

Siméant-Germanos, J., Andreotti, B., Le Gall, O., Le Texier, T., Voinnet, O. & Barbour, B. (2019, janvier 17). *Séance 3 « Intégrité scientifique ? », Politiques des Sciences*. <http://archive.org/details/IntegriteScientifiquePDS17Janvier2019>

Taylor, C. (1995). Two Theories of Modernity. *The Hastings Center Report*, 25(2), 24-33. <https://doi.org/10.2307/3562863>

Unesco. (2017). *Recommendation on Science and Scientific Researchers* (p. 1-2). Unesco. http://portal.unesco.org/en/ev.php-URL_ID=49455&URL_DO=DO_TOPIC&URL_SECTION=201.html

Walzer, Michael. *Thick and Thin: Moral Argument at Home and Abroad*. University of Notre Dame Press, U.S.A., 1994

Weber, M. (1991). *The protestant ethics and the spirit of capitalism / L'éthique protestante et l'esprit du capitalisme* (Œuvre originale publiée en 1904-5). Pocket.

Wikipedia. (2020). Olivier Voinnet. In *Wikipédia*. https://fr.wikipedia.org/w/index.php?title=Olivier_Voinnet&oldid=178940067

Zhao, T. (2011). Une analyse philosophique du concept Monde. Empire en termes de Tout sous le ciel. In A. le Pichon & M. Sow (Éds.), *Le renversement du ciel—Parcours d'anthropologie réciproque*. CNRS éditions.

