Notes of **Praise, Qualms and Prospects** about
„The Cosmopolitanization of Science. Stem Cell Governance in China“, by Joy Yueyue Zhang

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This is the time for building new bridges.

This book is the result of a project that is remarkable in its own right, a *performative* response to some of the questions it raises. The author, Joy Zhang, demonstrates that a cosmopolitarian approach can be suitable and constructive – and genuinely scientific, in its proper sense.
This is so much so that I have qualms about blurring the concept of science for the benefit of the theory of Cosmopolitanization. Arguably this cultural objection might be making sense specifically from the holistic Humboldtean perspective on science as Wissenschaft.

1 **Praise**: The book, in summary,
- provides an original, detailed, nuanced, rich and solid *empirical account* of contemporary China,
- explains developments as *embedded* in multiple relational facets, history and social transformation,
- describes the internal mechanisms of China's *regulatory machinery* in transition, in great detail,
- elucidates the heuristic merits of *problem-related exploration* in comparative and in ethics studies, such as: a focus on different actors' and institutions' dealing with uncertainty and risk in science, technology and society, and their interplay (here: e.g., when it comes to the therapeutic promise/mis-conception that drives part of stem cell research and the related regulatory debates);
- focuses on a selected field of science as a *microcosm*, which includes patterns of significance for China, for science in China, for the international China-interrelations (operationally and conceptually), for science and indeed cosmopolitanization in general; it
- provides a valuable in-depth understanding of the *scientific-regulatory micro-structures*, in their gobal significance and repercussions;
- offers a self-explanatory case for the merits of intergrated and grounded *methodology*. Perhaps it even, as it claims;
- *charts the transformation* of Chinese science from an image of the 'Wild East' to a responsible player in the international stem cell community; and it
- provides a powerful *corrective to existing cosmopolitan frameworks* which are established mainly on Western data sources,
... which would all be laudable and invaluable pioneering work already.

2 **Historical context**
We have „just started to realize that the ‚international community' is not one monolithic authority, but rather a round table of various members, China is still a novice struggling to grasp the grammar of global communication“ (Zhang 105).

This inspires a flashback on the state of debates and research on China's life science, incl. stem cells, governance and ethics, 15 years ago. Among the international science and ethics communities, at that time, in general, there was
- no cosmopolitan spirit or accepted methodological, conceptual or normative reference for scientifically sound approaches crossing boundaries and borders,
- little acknowledgement of shared humanity, but

- relativisms in abundance.
- The emerging bioethics was confused and politicised, uncertain about its agenda being metaphysical, ethical or political; moral or scientific.
- At best, it can be described as an emerging field of study, at an early stage that might have gained practical, institiutional, political and even normative authority, prematurely;
- sometimes, as with „bioethics“ multiply emerging; more realistically, in my experience at the end of the 1990s, the state was (multiple and) poor sciences in a mess.
- Research policy and research support were informed and organised according to the *interests* and stakes (that were glorious & great) and the existing level of *scholarship* (that was confused & confusing), and with serious problems with the *translational* work between cultures, with post-Cold War rhetorics and claims for dominance of the „end of history“-world (Fukuyama, Huntington) in biopolitics and bio-economics.
- Examples to illustrate this poor state are vast, in all areas, including: meaning of „culture“, framework of „ethics“, methodology for inter-and transdisciplinary science, entangled reasoning, (cf. Döring 2004)
- with no institution being up to the task (academic, governance, business).

Then, obviously, business dynamics took the factual lead. (As can be seen from the brief episode of inflated funding for such activism in UK, from which, incidentally, Joy's and my own work benefited).
From within this muddling situation, a few dedicated scholars took up the challenge to take the long, meticulous and systematic path of serious science to explore, chart and transform it into arable field for scientific and ethical work. One of the resulting milestones obviously is in the material substance of this book.

3 **Qualms**
My qualms refer to the meta-theoretical approach that I believe is flawed and in fact not even called for here. However, looking at it can help us to discern a relevant problem for science (in relation to politics, society, economy, and itself). On this level, the great telos or regulative ideal of humanistic or cosmopolitan science (*Wissenschaft*) is challenged through cultural specific (narrow) claims, vested interests and a general uncertainty regarding the overall meaning of science in our world – its conceptual foundation, ethics, organisational structures, and in particular its preparedness to respond to challenges from economic, political, moral or other non-scientific drivers of today's globalising R&D civilization. E.g.,

(1) I am not sure that it is appropriate to claim that this book makes a particular „important contribution from the field of technology assessment to the topics of technology governance and global bioethics“ as is claimed by the organisers of this conference. It seems, rather, to lay out the methodology and descriptive base that could then be tested as candidates for an embedded approach to this multi-disciplinary task. *Assessment* could then be based upon this pioneering work, accordingly.

(2) Another misleading and overblown claim seems to be that „This book demonstrates the feasibility, and implications, of a less advantaged country in influencing global research trends“. I think, it doesn't have to and really cannot address such a political issue, and certainly not in the overcome polemic stile of the late 1970s. Whether China was subscribing to a positive agenda of „influencing global research trends“ seems academic at best and might lead to

obviously trivial ex-post findings of accidental influences; as one will in view of other countries as well.

(3) This is observed not as a nitty-gritty criticism, but as an example of a retoric moral undercurrent that seems to be at work, reminiscent of what Ian Buruma once coined the post-Colonial „Nanny State“ syndrom, with reference to modern Singapore: the idea to refer to norms and standards of the perceived dominant world players, and to equate genesis & programmatic factors for success. This seems to be an alien concept for the author, and misplaced in the descriptions of this book. When she states, „I consider this to be the main contribution of this study to current debates on global scientific advancement“, namely to demonstrate „the possibility and feasibility of less privileged countries acquiring effective leverage to shape the norm of global/local scientific exchange.“ (Zhang 188), this is an example of an odd class-struggle lingo that seems pretty much out of place when contrasted with the brilliant and sober analysis she provides widely throughout the book.

The Nanny Syndrom might be inspired by her mentor’s, Ulrich Beck’s political creed, which may have its valid position elsewhere. Here, it can explain both, the polemic tone and the speechless deadlock confrontation that defies the foundation of scientific discourse and has actually been counter-productive to the development of ethics in East Asia (among others). It affirms the juxtaposition of players and the lack of a self-conscious, creative vision of one’s own path as a scientist and responsible citizen. As Zhang shows performatively and expressly, this is neither necessary nor helpful.

To be sure, progress in science and technology development, including the related social, ethical, philosophical and governance activities, cannot be assessed within a pre-cosmopolitan / pre-globalisation outlook, but certainly not within a Colonial or Cold War mindset either, for it transcends the boundaries of state and legitimacy, embedding them in individual and transnational agents’ interconnected activities. This is what the empirical material in Zhang’s study seems to provide important evidence for, and the author expresses this quite clearly. So why get sucked up into such obsolet framing?

(4) More generally, if we prefer to avoid frameworks that re-iterate flawed descriptors, such as those of the Compass, or the „Clash of Civilizations“, and mis-attribution of agency, such as, to quarrelling „states“ or „cultures“, we get rid of theoretical ballast and empirical misconstructions, and open our discourse for the real world.
Then, when taking Zhang’s performative approach serious, indeed, this works even more powerfully, as it „contributes both to the empirical social study of science“ and perhaps also „to current theoretical debates on cosmopolitanization.“
From my point of view, it would be well grounded and sufficient to praise the book for what it actually is: a humble test case and limited exploration into the fabric of research culture genesis, with the related theory and the intrinsic rationale of science.

(5) A farther reaching problem lies within the the framing of the research question, that is typical of the mainstream bioethics approach. Why *Subscribing to the narrative*: why is it pointedly about *stem cell* governance in China? And not, e.g., on the making of governance through the interplay of stem cell research, facing ethical, scentific and organisational questions? Implications for methodology and interpretative strategy are obvious.

One can exercise greater humility regarding the proportion of claims of relevance of the life sciences and their governance as indicators of globalisation processes on a deeply embedded cultural level. The observation that they were regarded a „sputnik opportunity“ for Asian states (just as for Germany, since former Chancellor Schröder), indicates pause for reflection rather than straightforward affirmative action.
For China, such pause would allow room for reflection about the general political transformation, and on the building of communities in science, on stratifications in these processes and in society at large, providing reference for ethical considerations. (Sleeboom-Faulkner 2013)
Accordingly, it would be easier then to include the question of Chinese vulnerability for problematic effects of transplantational importing state-of-art knowledge and technology, without translational capacities.
However, the theme of stratification is not captured properly. Although this could be expected as implicit in Zhangs allusion to „the organization of cross-border solidarity“ (Zhang 189). As solidarity, this would go beyond the community and (elitist) strata of science (and the associated intellectual bias), and reflect them in contexts of globalising societies, equity and responsibility.
There is room to hope that this line of enquiry will be taken up further.

4 **Margins**
Thus, this book makes a serious, and seriously based, attempt to remind the research of the need of a reasonable methodology.
The base of literature is thin, with grey literature or conference contributions, sometimes bordering to the anecdotal or symbolic, while some relevant texts are not accounted for (e.g., non-English/Chinese language sources; Wolfgang Hennig’s EMBO reports; Hennig, Wolfgang (2006): Bioethics in China. EMBO reports VOL 7, No. 9: 850-854, Research in China. Experiences from 23 years of molecular genetics research in Shanghai. Wolfgang Hennig. EMBO reports (2009), 10, - 545 - 550). Thus it is re-emphasized that this is all still the pilot stage of a huge research program. However, this is not to criticise an author who ventures to disembark on such a multi-disciplinary mission while the scholarly field is yet poorly organised and temptations of cheap *China watching / China dreaming* are gone. It just re-confirms its merit: to remind us of the humble point at which we stand and be inspired to continue / start the work seriously.

Zhangs analysis includes some very clear insights into the making of regulation in China. E.g., the analysis of some fundamental problematic features in the Chinese regulatory approach: in particular the post-hoc pragmatism (50) and inappropriateness of scientific terms (54) which are recommended for closer scrutiny.

The Role of the Communist Party remains unclear. There are obvious obstacles for describing what goes on behind the closed doors of political decision-making in China. However, it remains as a relevant desiderate for research. Especially, as it affects the matter of legitimacy of control over science and technology: should it be „democratic“, pragmatic or effective and just?

As to the Chinese stakeholders having developed a cosmopolitan sensibility in comprehending and responding to ethical and regulatory concerns. Evidently, progress towards a globalised, cosmopolitan science and technology assessment will include Chinese contributions; of course, they will incorprate scientific virtues together with fairness and equity regarding organisational, governance and ethical issues. However, intrinsically, this will not matter. What will matter are the qualities of the science, the ability of the Chinese educational

system to support cosmopolitan scholars just for the sake of best quality, the capability of media to provide for critical and educational discourse, etc.. The strongest inhibitors of such a development appear to be narrow national or conceptual criteria of excellence and the mentioned pragmatism.
This goes to all of us, in any country. As long as there is not even a vision of a global scholarship (beyond post-Humboldtean projections) culture, not to mention an institutional base for such a cosmopolitan institution, we are in fact leaving deliberate design to business dynamics and structures such as *Science* and *Nature* cartells. How about their integrity, credibility and quality? These are global challenges for cosmopolitarian science, on which the Chinese example makes a strong case.

Coming back to my qualms mentioned earlier. I believe that this important research and the wealth of materials and keen observations it offers is burdened by the theoretical assumptions in the particular rendition of cosmopolitanization it uses. Instead, it would benefit from a leaner theory that trusted the self-explanatory capabilities of the chosen scientific approach and the underlying rationales.

5 **Prospect**

Anyway, this research pursues a most promising course. It can provide for the empirical and social-hermeneutic groundworks that are needed to enlighten Technology Assessment to humanity beyond mere technology assessment.

My initial cultural objection from the perspective on science as (systematic-holistic) Wissenschaft may encourage those historeans, theoreticans and philosophers of science who worry about the pragmaticization, reduction and even corruption of science as Wissenschaft and education as (continued holistic cultivation) Bildung. In this view, Chinese scholars might appreciate an alternative approach to some of the current problems of regulational culture and social embeddedness of science/kexue: as with Wissenschaft, the Confucian program of „Ge wu zhi zhi“ offers the conceptual depth, traditional base and humanitarian ambition to strengthen the non-instrumental, idealistic and humanistic motives that make science a genuine, souvereign and sincere venture of exploration of knowledge. The all-corrupting trend in globalised science and ethics to compartmentalise, instrumentalise and alienate science for „high-level“ or simply powerful interests is moulding China as it has much of the world.

Such an injection of critique could open up a powerful cultural resource of epistemic and ethical humanism to benefit the advancement of Technology Assessment as an interface of humanities, social sciences and the „hard sciences“. This is a serious cosmopolitarian proposal.
It is in the best interest of scientists everywhere to build cosmopolitarian alliances in the general sense reminding us of the scale of humanity, to strengthen the souvereignty, authority and integrity of science against interventions from politics, economy and other interests that are smart in shaping and using science as a mere instrument.

Obviously, I am happy to commend this book. But it should be recommended for the right reasons, for its strength and inspiration.