



Essay

The Science Fiction - Futures Studies Dialogue: Some Avenues for Further Exchange

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On the Problem of the SF-FS relations

The cross-fertilization between artistic and non-fictional approaches to the future is unquestionable nowadays. Very often the current field of futures studies (FS) welcomes speculative narratives as a means to stretch its own epistemic horizon by accommodating what lies on its periphery, as a source of inspiration to the marketplace of ideas and as a communication tool for strategic purposes. Alvin Toffler famously praised the worth of science fiction (SF) as a “mind-stretching force” that prompts into imaginative explorations feeding the habit of anticipation (Toffler, 1970). Recently we see more and more examples of accommodating science fiction “expertize” into the product innovation cycle of various businesses in the form of SF prototyping or fiction design (Gibbs, 2017; Peper, 2017; Romeo, 2017). Last but not least, strategic units, such as the US National Intelligence Council, occasionally use fictional narratives to illustrate and give life and meaning to their own trend analyses (ex. Global Trends: The Paradox of Progress in National Intelligence Council (2017)).

It seems that within this provisional conceptual dialogue between the realm of SF and the professional field of futures research the former has always something to say to the latter; however, it is not so obvious what FS can offer back. Back in 2015, in a special issue of *JFS* devoted to the theme, one of the editors (José M. Ramos) noted that many of the received submissions of texts for the call reflected the usual interest in how SF contributes to futures research whereas much less were the attempts to develop an argument on how FS could be significant for science fiction (Lombardo & Ramos, 2015). In this essay, I would like to add to this evolving discussion by suggesting two possible avenues for renewing the debate about the SF-FS relations.

The first one involves challenging the approaches referring to science fiction merely as a “useful tool” to FS and narrowing its significance to purely instrumental goals. Undeniably, it is often evoked by professional futurists as a means of engaging their respective corporate and academic audiences. Still, as I will try to show in this essay, science fiction in its various forms is much more meaningful for futures research as one offering a certain reflexive stance to social change. It goes beyond the inspiration of new consumer needs, original products and novel consumer behaviors. And it is *more than* yet another instrument in *exploring* possible and alternative futures – it conveys a certain attitude embracing not only the idea of the infinite malleability of institutional and social arrangements but also points to the fragility of our own cognitive self-confinements in the face of the *novum* (see Suvin, 1979).

Second, I believe that FS has the capacity to offer more than just a variety of methods and tools that can serve as interpretative lens to appreciate science fiction narratives through the angle of professional futurists. Undeniably, we could employ analytical frameworks like the Causal Layered Analysis (Inayatullah, 2004) to hermeneutically explore the bouquet of meanings and assumptions enwoven in a SF story, and this would not be futile as it would enrich the otherwise copious semantic universe of the *voyages extraordinaire* (to use Verne’s original phrase). However, I suggest that one way futures research could “speak back” to the science fiction realm is by the means of engaging in a deeper conceptual exploration of the notion of plausibility.

We should recognize that within futures scholarship plausibility is a rarely treated problem and yet crucial in terms of futures thinking as action-oriented inquiry in conceiving possible, probable or preferable futures. It often requires continuous reconsideration as scientific advancement and socio-technical dynamics introduce new

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potentialities that entail rethinking the time horizons and feasibility of social change. Plausibility raises many questions concerning the credibility and reliability of futurists' narratives: What is a plausible future? Is plausibility a criterion for the likeliness of occurrence or for the reasonableness and consistency of argument in building a particular scenario? How does it relate to the actionability of a certain vision of the future? At the same time, within the science fiction world, various semantic "readings" on plausibility seem to be at the heart of different understandings on what constitutes an actual science fiction narrative in its relation to reality and scientific fact. In this respect we have subgenres ranging from the highly technical "hard" science fiction to the more borderline scientific fantasy, and a myriad of story formats such as cyberpunk, space opera, climate fiction, time travel, apocalyptic science fiction, biopunk, etc. I suggest that exactly the definitional ambiguity of the notion of plausibility could provide a fertile conceptual ground for a future dialogue between futures research and SF. Centered on this issue, it could shed some light on both fields' engagement with actual social change; it could contribute to undergoing debates as to divisions around "hard" and "soft" science fiction, utopia and technological tales, prognosis and conjecture, plausibility and truth, art and science, wild speculation and rational imagination, and so on; it could also help both fields address internal conceptual conflicts regarding the pursuit of some identification markers that constitute the core of their respective outlooks.

Against Treating SF as A "Valuable Adjunct" to Futures Research

My objection against treating science fiction by futures research merely in instrumental terms can find its precursors several decades back, as a response to what was referred as "futurology" at the time. A notable example is Charles Elkins, who offered an argument based on the social function of language to oppose treating science fiction as a "valuable adjunct" to scientifically based explorations of the future (i.e. forecasts based on extrapolation of trends, system dynamics, modelling, etc.). He maintained that the value of SF should not be estimated against the backdrop of how well it serves the aspirations for acquiring reliable knowledge about the future, because the latter implies a rational model of conceiving reality, one based on logic and explanation. Conversely, science fiction *as art* has no such cognitive claims. The social function of language in it is not in discovering some truth or accurately reflecting reality. It offers symbolic constructs and employs dramatic models to delve into the possibilities of human action and communicate the meaning of human action irrespective of reality (see Elkins, 1979). The pathos of Elkins was more in the direction that SF has value in itself and it should not be measured against its perceived usefulness to forecasting efforts. As Nudelman pointed out, science fiction as fiction deals with "the novum and not with the future; with changes and not with prediction" (Nudelman, 1979, p. 242).

I side with these voices only in terms of opposing the estimation of the significance of science fiction through the lens of some pure instrumental value to futures research. Of course I do not contend that there is no common ground for dialogue or collaboration between the two in view of their different nature. For instance, much of what is deemed SF like *The Time Machine*, *Brave New World* or *1984* is actually functioning as social allegory, illuminating the problematic aspects of (then) current tendencies when radically extrapolated to the future. I do, however, object to setting a too narrow, utility-oriented understanding on the significance of this dialogue and collaboration.

Indeed, the infinite universe of science fiction is a never-ending reservoir of innovative marketable ideas that, and if they are harvested well, they could serve the engine of capital accumulation and corporate profit-making. There are numerous examples spanning from cell phones, video communication, and surveillance systems to antidepressants, automatic doors, autonomous cars and 3D printers. Furthermore, a science fiction account could not only grab the attention but actually stretch the epistemic horizon when considering black swans, "out of the blue" events or game changers, thus providing an imaginative vantage point that could challenge cognitive biases and prompt organizational change. There is an endless list of speculative works, both literary and cinematic, envisioning apocalyptic and post-apocalyptic themes dealing with climate change, nuclear doom, space exploration, synthetic biology, gene manipulation, and so on and so forth, that could be used in futures research to bring forward the famous "thinking the unthinkable" approach of Herman Kahn and stimulate creative ways to navigate through uncertainty. A science fiction narrative can contextualize and visualize a catastrophe or a benestrophe (to borrow this neologism from Ed Cornish), giving to an unorthodox futures account a flavor of plausibility by presenting it through the lens of human experience. What is more, it could even produce new futures knowledge, as showed in

an analysis of 132 short stories written by citizens for the Finnish Parliament Committee for the Future (Ahlqvist, Uotila, & Hietanen, 2015).

All this could explain why some advance worldbuilding and storyworlds from science fiction as a source of insight to address challenges before the futures studies field as regards communicating images of the future, conveying deeper meaning, comprehending uncertainty and contextualizing the unfamiliar (Stackelberg & McDowell, 2015). Others maintain that borrowing from the worldbuilding process in science fiction can be useful for strategic purposes in design and foresight by offering coherence, user-testing worlds and developing the capacity to envision alternatives that inspire actual social change (Zaidi, 2019).

Although all of the above examples are telling for the fruitful and meaningful collaboration between SF and FS, my contention is that we need to conceive of the significance of this collaboration in a way that the value of science fiction would not be measured only in terms of serving some narrow strategic purposes of foresight.

The Deeper Significance of SF for Futures Research

We cannot deny that the undergoing collaboration with science fiction goes along the evolution of the futures studies realm and its general reorientation from extrapolating a singular future to embracing the idea of the multidirectionality of the historical process¹. Contemporary futures research has questioned the sufficiency of quantitative scientific approaches and currently advocates for a broader engagement with a variety of methods, perspectives and participants. Following this conceptual road in broadening its attention span and giving way to non-Western perspectives and uncertainty, it not only builds bridges with science fiction but also opens room for self-confrontation. By questioning its own rational models and employing critical analysis to demystify crystallized images of the future, it unravels new spaces for collective and individual action. It has become self-corrective and SF has its place as inspiration and source of ideas for such epistemological unlatching. In connection to that, I argue that the importance of science fiction for futures studies lies in a particular attitude that is crucial for inspiring and initiating social change, something that constitutes the FS promise of the day.

This could have a significant imprint in conceiving alternative desirable paths, unorthodox images of the future, much in the spirit of Eleonora Masini's *visioning* (Masini, 1982) – images that defy business-as-usual extrapolations and challenge assumptions about the drivers, the direction and manifestations of social change. SF uses the future as a temporal background, as a conceptual space, as *uhronia* (to resort to Koselleck's term) that procures a flight of imagination far beyond conventional prognostication efforts. Thus if there is significance of SF *for* FS, it is much deeper than just being the usual resource of ideas as to innovative products and practices that would fuel the engine of capitalism. I will mark its possible imprint in connection to two avenues for reflexive self-confrontation.

First, a very important contribution of science fiction as to our overall perceptions on the nature of humanity, if we provisionally accept the validity of such term, is the intimation for the "malleability" of institutional arrangement and social practices, and the corresponding to that "plasticity" of cultural codes. A SF story is an *alter-world* – a distorted mirror, which could dramatize current tendencies or imagine new ones. It could reinvent what we consider to be authentic human experience by the means of fictional speculation. Take for example Asimov's novel *The Naked Sun* (1957), which illustrates by literary means two possible modifications of the human condition with all its effects – underground habitation in enclosed cities on Earth (agoraphobia as the human condition) and a planetary society organized through the means of video communication ("viewing") in which any immediate physical interaction ("seeing") is reckoned taboo (we leave aside the issue of robotization as part of the imagined human condition in both cases). What is significant for us here is the intimation for the changeability of the human state of affairs, and the variability of institutional arrangements and social practices that shape it, following or triggering certain technological choices. This is an important benchmark of reflexivity for futures research since it feeds an attitude that could challenge the psychological and cognitive constraints, and political and institutional inertia in considering patterns of social change that defy common expectations about the future embodied in business-as-usual scenarios. By the same token it could illuminate the catastrophic aspects of techno-optimistic visions of the future; or function as a gesture of political dissent by the means of literary metaphor (as was the case with science fiction on the Eastern side of the Iron Curtain). Anyhow, science fiction convinces of the possibility of paradigm shifts in human organization and their underlying political philosophies. This is something that SF stories share with the tradition of utopia be it the classical, the technological or the critical strand (see Edward James' taxonomy

(James, 2003)).

Second, another reflexive field that SF opens is one concerning the eternal and the transient within the evolution of the human species. Here the notion of “the other”, in its philosophical sense, is crucial. The encounters with “the other” may take different forms but they all seem to invite the uncanny under the veil of the incomprehensible. There are many stories that explore the different roads and stages of crossing the path of other cosmic civilizations – observing them, looking for the familiar in them, fretting in the face of the unfamiliar in them, contacting them, failing to communicate with them, the frustration of misunderstanding them, and so on (ex. Stanislaw Lem’s *Eden* (1959) [1968]. Other times, it is the disturbing mirror of “the other within us”. It concerns stories of encounters with what is out there, with vague essences that animate the other within us. This causes unfathomably new ways of perceiving, of being into reality, of existing in the universe for the humans themselves (ex. Stanislaw Lem’s *Solaris* (1961) [1963]).

What is SF saying to FS in those elaborations on cosmic strangeness – be it out there or inspired within us? As is in all human tradition and history, “the other” is being construed as a reference point for self-exploration and self-assertion. Facing “the other” endows the opportunity for a revelatory encounter with oneself, with one’s own unquestioned assumptions and specific cognitive biases crystalized in language, codified knowledge, abstract concepts, habits, norms, etc.

For the futures research realm this always has to be a conceptual vantage point when considering social change, technology and progress. Not for the sake of an overextended horizon of the foresight effort but as a premise allowing reflexivity on our own cognitive closures. This in its turn would inspire novel transformative strategies for the future. Crucial in such endeavor is the conceptual dialogue between science fiction and futures studies on the issue of plausibility.

Plausibility – A Conceptual Meeting Ground for A SF-FS Dialogue

If we turn to the use of the notion of plausibility in different fields, we will see that very often it is summoned to alleviate an epistemologically problematic situation of uncertainty, insecurity or impaired visibility as to patterns of cause and effect. It becomes a synonym of a reasonable belief or a reasonable conjecture in conditions of dealing with incomplete evidence. This is the case with practices in patent law (plausibility of expected effects of innovation), in biomedical research (plausible inferences as to expected efficiency of a treatment), in applying the precautionary principle (protecting against plausible harm in view of uncertainty), etc. In its mundane use we can witness a wide specter of nuances in meaning – the emphasis could be on high likeliness of occurrence, credibility, trustworthiness, reasonableness, feasibility, logic and believability of accounts, stories, contentions, hypotheses or explanations about the future.

At the same time it is often used but rarely explored in-depth within the futures research realm. We should acknowledge the work of Van der Helm (2006) in this direction. He makes an attempt to clarify the different semantic confusions and overlaps in the use of the “possible”, “probable” and “plausible” qualifiers when referring to the future. The issue is also touched upon in discussions concerning scenario practitioners (Ramírez & Selin, 2014; Wilkinson, 2009). In those accounts plausibility is being construed as more relevant to the consistency and coherence of a scenario rather than its likeliness of occurrence. In this sense the notion provides a common conceptual ground for futures research and science fiction when they elaborate alternative scenarios/stories.

For the futures studies realm a plausible scenario could be deemed one depending on reason and consistency of argument (not on probability estimations) to promote the credibility of what may initially seem counterintuitive for the analysis. Plausibility is a criterion for reliability (Gabriel, 2014), not a stamp for truth². In this context, Selin and Pereira (2013) highlight the productive aspects of plausibility which entail “inviting a reasoned ambivalence towards prediction; it is about keeping logic in clear view without rushing to assign probabilities” (Selin & Pereira, 2013, p. 106).

In science fiction, of course, the source of plausibility of a story is not necessarily hidden in the articulation of a logical account within a rational model of reality. Its reliability could be conceived with the means of the dramatic models Charles Elkins talked about and their specific mechanisms of endowing meaning to human experience. The plausibility of science fiction, literary or cinematic, is not by all means derivative of its adherence to actual scientific fact. It may lay in the mere anticipation or foretaste of a distant possibility as real, although the latter could be

considered improbable or incredible. And the plausibility of an account is highly dependent on the mastery of the storyteller. The key point is that, as is the case with futures research, science fiction does not aim the truth as objectively attainable aspect of reality. As science fiction writer Jerry Pournelle noted: “We don’t need to predict the real future; we’re only interested in a plausible future” (Pournelle, 2017).

Plausibility is a theme that raises many occasions for debate on how a narrative, be it non-fictional or artistic, relate to problems such as its truth value, scientific reliability, normative orientation, constructivist stance on reality, and interventionist effects on actual practices. For example, how the fictional socio-technical world, achieved by the means of cinematographic visualization in a film like *The Minority report* (2002), affects public attitudes and expectations about the future? Does its plausibility lie in the convincing way the story is presented or in the fact that the world-building process that was at the heart of the production of the film functioned as a “testing ground for reality” (Stackelberg & McDowell, 2015, p. 30)? What does the film reveal about the public assumptions concerning the plausibility of a technologically-driven legal order based on suspicion and pre-emption rather than the presumption of innocence and ex-post proven guilt? Does its plausibility stem from pre-existing expectations about technology or it is a result of internalizing the messages of the story by the audience? How all this impacts actual foresight efforts when it comes to anticipating the future of security, surveillance, democracy, legality, crime or punishment, given that plausibility is crucial for futures research as action-oriented endeavor?

All the ambiguities surrounding plausibility may produce disagreements within the science fiction realm on the *differentia specifica* of a science fiction story. In any case, the notion can be a good platform for a renewed dialogue between futures research and science fiction. In this I build on Tom Lombardo’s contention that they both represent two relatively distinct expressions of futures consciousness, two forms of futurist thinking that exist on an *interactive continuum* (Lombardo, 2015). One point of interaction, for example, could be the plausibility of far-reaching trend extrapolations as a basis for ethics speculation on current technologies. *The Black Mirror* mini-series, for instance, evokes such discussion, feeding precisely on the plausibility of some of the visually presented stories that function as social allegories problematizing the present.

In conclusion, there are many questions, surrounding the relations between SF and FS that go beyond the usual appreciation of the symbolic power of SF visions or the cultural codes hidden in them. A SF-FS dialogue around the notion of plausibility could actually open a vast conceptual space for exploring the powerful and quite complicated dance between image and actuality.

Notes

- 1- In the methodological field this assumption leads to interesting conceptual experiments like the one employing counterfactual analysis for the purposes of futures research. See (Todorova, 2015).
- 2- For an interesting discussion on plausibility and truth, see Cellucci (2014).

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