A Prehistory to Prescience: The Rational Recollection of Futurity

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The growing edge of modernity is defined by its tendency to progressively entangle us—both theoretically and practically—in an ever-deepening horizon of futurity. Reinhart Koselleck [2004; 3] specified modernization as an increase in 'demands made of the future', but it is simultaneously an increase in the demands the future makes upon us. Given these premises, this paper will reconstruct the longest-term historical and intellectual conditions of such a dynamic.

After the institutionalization, bureaucratization, and deputation of foresight across the 20th-century, we—residing in the early 21st-century—live and move and have our being in a 'culture of prediction' characterized by incrementally long-range and high-resolution models [Heymann et al., 2017]. A growing 'integration of the future into the present', that, as Riel Miller [2018; 2] declares, demands of modern citizens the aptitude of 'futures literacy': or, we become conversant, in the present, with a growing suite of progressively distal and severe futurities [e.g. Bostrom, 2003].

In line with this, Gramelsberger [2011; 20] diagnoses a shift to the 'future perfect mode' in contemporary science. Predictions, no longer used for hypothesis validation, are now threats to be prevented. This is the context within which to understand the recent baptism of 'X-risk studies', 'future studies', and inquiry into 'anticipatory systems'. It is in the future perfect, Bexte [2011; 226] writes, that the 'current age will have characterized itself'.

Accordingly, we embark upon a rational recollection of the conditions that make this so.

It is a properly *rational* recollection—as opposed to a mere genealogy or congerie of contingents—because this history illuminates that sensitization to futurity (and its risks) is always a question of reflective self-legislation and self-regulation *before* it can procure objective or declarative range as a matter of factual prediction or prospection. 'Catastrophe', that is, was learnt, never given: it was self-imposed rather than passively received. And such learning was a necessary and progressive phase of humanity's intellectual maturation. We are presented with a story about (the discovery of) contingency that is not itself entirely contingent.

Prescience, in other words, is never a question of what 'will have been thus-and-so' independently of it being a question of 'what thought is due', or, more precisely, what is *at stake* in the practice we call anticipation.

As Rescher [1998; 26] notes, serious futurology presupposes historicism. And it was Koselleck [2004] that argued that 'historical consciousness' emerges from 1750-1850, wherein the 'horizon of expectation' became delaminated from the 'space of experience'. Simply put, one must be a historicist to anticipate the future as uncertain and open. Yet this openness is, itself, further premised upon prior acknowledgement that experience cannot exhaust the range of possibility: this being what distinguishes modernity's distinctive project of predictive forecast from the perennial tradition of eschatological expectation. Forecast, that is, is a roadmap that operates by incorporating its own status as a frangible map within itself, thus crucially enabling course-correction by way of making room for that which is entirely beyond its own space of anticipation. It is the root of such self-awareness—which is essentially a semantic development—that is ultimately the source of modernity's future-orientation and our contemporary apparatus of planetary prediction. This development, moreover, can first be located at the gateway to modernity itself.

When Cardano, in c.1552, first formalized Games of Chance by enumerating an abstract sample space for the die whilst deploying numeral notation to track frequencies within this reference class, he initiated modernity's filiation with probabilism and the science of decision. This, when combined with the later development of calculus and its pathbreaking ability to compute varying rates of change, set the seeds for our present-day megastructure of 'planetary computation' [Bratton, 2016]. And yet, when Cardano made his innovation, he was relying on prior breakthroughs concerning modal semantics, or, the language we use to express possibility.

The vocabulary employed to express such possibilities as are beyond all experience was first developed, at the birthplace of the scientific endeavor, in late medieval philosophy. It was here, in other words, that counterfactual reasoning and the notion of possible worlds was first deployed. Yet, as an unintended collateral of delineating contingences beyond all actual experience, the schoolmen first articulated the contingency of experience *simpliciter.* Here, they stumbled, serendipitously, upon the dual expressive role of modal locutions: that is, not only do they reference instabilities and variabilities within the natural world, but they also serve to pick out infirmity and corrigibility concerning the very concepts through which we describe said world. Overt talk of how the objective world 'could have been otherwise' serves as covert invigilation upon the proprieties and limits of 'objectivity' as such: and 'anticipation' is nothing but the infliction of this higher-order semantic awareness to our experience of the empirical world and its affordances.

Reconstructing this groundbreaking semantic development reveals that, since its inception, the postulation of possibilities entirely beyond experiential horizons was, by necessity, an affair of *rational self-legislation* before it procured factual or predictive dimensions; or, in other words, 'finitude' was tense-agnostic and logical before becoming tensed, at modernity's 'growing edge', as incoming disasters and impending calamities to be averted; and, more importantly, it was sensitization to such precarity that first summoned us to the modernity-defining projects of prediction, mitigation, strategizing and—in the end—self-determination. Ultimately, 'anticipation' teaches us that finitude is always as much a practical matter as a theoretical one.

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