

# Velocities of Disputation, Fact, Measurement, Perception, Volition

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Whenever we complain about human exercises of freedom, whenever we contest someone's exercise of so-called "freedom" (challenges based on evidence of poor and poorly informed decision-making as also upon prudent, considered, and at least somewhat informed choice), our usual preface remains the piety that we humans in fact prize freedom.

This is a startling contention to continue to insist upon, given our usual zeal for restricting our fellows and limiting their freedoms while exercising and retaining our own, even should we accept the proviso that human exercises of freedom come to be contested only when its assertions overlap semantically, or legally, or in some other manner deemed profound or significant or unduly complicated enough to provoke protracted irresolution. (It only begins to become obvious in this age that, whether "freedom" is reality or illusion and no matter how we assign responsibilities in either circumstance, our galaxy could chase its tails for 240 million years before we'd ever settle the matter.)

For the moment let's proceed as if the existence or non-existence, the reality or non-reality, the illusion or the pretense of human freedom (no matter what possibilities this permits, no matter what limitations could constrain its exercise, no matter what responsibilities its exercise might entail) is absolutely of no consequence.

Contemporary cosmography tells us that both our extravagant valorizations of freedom and our dim regard for at least some conceptions and exercises of freedom are themselves to a high

degree influenced by sheer physical velocity occurring in the multiple frames of reference we occupy concurrently and simultaneously (or close to simultaneously, as we are about to concede).

Let us rehearse:

About the Sun our earth revolves in its solar year at velocities ranging from 27 km/s in the days of the north hemisphere's winter solstice to 30 km/s near the time of its summer solstice (owing to the slight ellipse in our orbit).

Our Sun, simultaneously, whips around the disk of our Milky Way galaxy at a velocity of 217 km/s.

The velocity of our Milky Way galaxy is not so easily calculated, but with respect to the Cosmic Microwave Background (CMB), it seems to be zooming along somewhere between 370 km/s and almost 500 km/s.

In the largest frame of reference likely to have any discernible effect upon this planet's small fortunes, our Laniakea Supercluster, with respect both to the CMB and to Hubble Flow, has been clocked by recent cosmographers at a velocity of 631 km/s (+/- 20 km/s).

(Note how velocities increase at remote distances and how they appear to decrease at distances deemed less remote.)

Whatever the reality of “freedom” consists of and whether we determine to endorse or condemn the idea, the daily performance of mundane human deeds remains decisively influenced by perturbations inevitably arising from temporal fluctuations engendered by compressions and expansions of velocities on both the macro and micro scales of baryonic matter—to say nothing of influences upon baryonic matter posed by dark matter and dark energy alike, to say nothing of states of affairs and phenomena occurring (concurrent to this local moment) within the maw of the Shapley Concentration or within the gaping emptiness of the Dipole Repeller.

These perturbations express themselves of necessity in their influence upon quantum states at every level of physical, baryonic

existence. The nature of these inevitable physical and quasi-physical perturbations does seem such as to leave temporal anomalies and discrepancies—temporal disjunctions, asymmetries, and asynchronies—not only structurally emplaced throughout the quasi-objective physical cosmos but also present and active in our routine private judgments and our common subjective assessments.

All human disputes subject to political discourse, diplomatic intervention, executive action, legislative consideration, medical diagnosis, professional assessment, expert analysis, semantic wrangling, prescriptive definition, public commentary, police jurisdiction, jurisprudential resolution, counting errors, category errors, et cetera—all human disputations concerning the accuracy, reliability, validity, and trustworthiness of measurement itself, that is—in other words, all human disputes—thus come down at least in part to matters of minute variations in subjective assessments of timing and perceptions of temporal velocity, owing to local particularities and circumstances in perturbations of quantum oscillations.

Our Quantum Era continues to require recalibration of data in every cognitive domain, as contemporary cosmographers begin to suggest the enormous tasks required of us.

We have hardly begun to interrogate the stark realities born of never ever being and of never ever having been from moment to moment entirely self-synchronized or exactly self-coincidental. It does begin to become distressingly apparent, to the point of embarrassment with further efforts to deny the relevant phenomena, that whatever it is we coincide with from moment to moment is entirely beyond our ken from our occupancy of this narrow ledge of baryonic existence or semi-existence. (Is our realm of baryonic matter vestigial to the realms of dark matter and dark energy? Or are we capable ever of learning whether dark matter and dark energy merely provide the dark and empty stage for the colorful spectacles proffered by baryonic matter?)

We are not less lost today simply for knowing approximately where we have been or come from.

Whatever we have or have never made of freedom or opportunity, decision or preference or choice, whether henceforth we can interrogate the cosmos with enough requisite specificity to discern whether we become capable of attaining or losing all hope for an adequate or somewhat accurate ontology, it remains to be seen whether “freedom” is—or is capable of being—an apt quantum category.

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