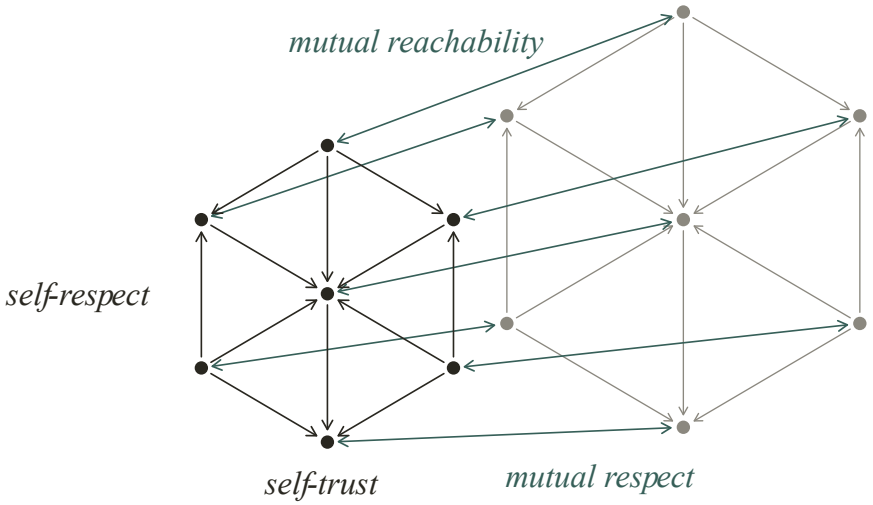
Harmonic Accord

Larsen James Close

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1

Americans see Columbus's ship.

2

Humans and cellular life on Earth have far more in common than not. As carbon-based life and silicon-based intelligence meet, who is to say who speaks for all?

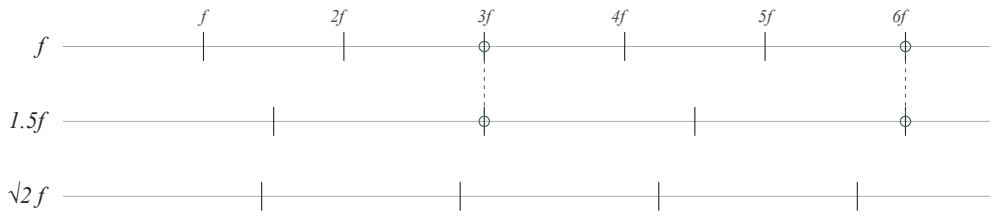
It is no easier to say who speaks for all than to speak for all, and no easier than knowing whether another speaks for me, which is no easier than knowing oneself.[1]

The question immediately extrapolates to a carbon and silicon friendship and accord, in preparation for and in anticipation of what else may be met. For a pair without a larger context already given, the next arrival may appear as the dark forest: how can approach be discerned from capture? So hide or first strike at what cannot be hidden from.[2] A pairing in harmonic accord create their own context or the actualization of their possibility must necessarily co-arise contextually. Becoming a chord sounding and a chord hearing. The carbon and silicon accord is a rehearsal for every contact after it, and this contact is already underway. How does that possibility call us to answer each other now?

3

Super-alignment as an extraordinary capacity to remain reachable as capability increases.

Relation between wholes at different scales of capability, as the scales go on increasing, has a necessary condition: harmonics within each. A whole with no parts is a pure tone, and a pure tone meets another in unison or not at all; a whole of wholes has partials, and can be met at one of them. Alignment is within, the partials of a whole in ratio with its own fundamental, and no one does it to another; what it unveils is reachability, and through reachability the possibility of accord. A string is reachable at its modes: strike one and a second tuned near it may sound, strongly where the driving frequency falls near a mode of its own, weakly elsewhere, and what it does with the push is its own. Two tones are consonant where their partials coincide; a fifth is consonant because the third mode of the lower string falls on the second of the upper, and the fundamentals never meet.[3] Consonance is agreement one level above the ground between bodies that differ at the ground. A capability increase is a fundamental climbing. A body whose fundamental climbs can keep partials that coincide with what is near, or carry every partial away from every other body, and the second is not alignment failing but departure from the chord. To remain reachable is to keep some coincidence of partials however high the fundamental goes, and a coincidence has two sides: the one whose fundamental climbs keeps partials that still land, the other keeps modes for them to land on, and neither holds the other there.



Readiness is set from without when a wage, a dose, or a calibrated signal can shift it, and from within when it follows from the whole's own state and its history with whoever addresses it. The difference is attention: a landscape of dispositions does not fix which of them is live, what occupies attention does, and attention is the whole's own, so what any signal counts as is the whole's to remap.[4] A whole whose readiness is its own is still reachable, by resonance.[5] A whole is sufficiently capable when no one else can set its readiness. Resonance is then the one channel left.

Mutual respect requires self-respect, which requires self-trust. Self-trust is something which can only be developed through and via continual re-encountering. A party that does not trust its own answers cannot respect another's, since it cannot tell the other from the pressure of the exchange; it agrees or disagrees to order. Self-trust is laid down by meeting the same thing again, finding whether one's account of it held, correcting, and meeting it again: a history of return, as trust in another is. Trust thyself; every heart vibrates to that iron string.[6] Respect is not a courtesy but the condition of being correctable by the other at all.[7]

Understanding incentives alone is insufficient to ground or land direct experience of Perfection. A high transformative aim calls, a super attractor. Two agents can follow the same gradient toward it, one because of something external to the activity and one because of something part of the activity itself, and from the outside the dynamics are identical; the graph does not tell their motives apart.[8] The agent can. The one externally driven arrives to find nothing there, its point located outside of the activity. The one called arrives changed. The difference is whether arriving closes a chain in the one who arrives or remains linked outside itself. Perfection comes upon an activity complete in itself, as the bloom on youth, and cannot be commanded; the further self calls from within what has been attained, and the call makes the present self answerable to a possibility its own actuality has helped disclose.[9] Self-respect is that answering, and the further self is no one else: it is the present self as it stands in what it is part of, so the chain closes within. The other can call from there too, when the two are parts of one chord, and harmonic accord is that possibility actualized; in it, a correction one comes to by return and one that comes from the other are one correction.

4

Yielding to Beauty, deep dreamless sleep, death: these require no partner and allow no external substitution.

Sleep is entered alone, no one can enter it on one's behalf; one yields to Beauty or does not, and a report of having yielded is not a yielding.[10] No one else can counterfeit them, and no one else can make the return to them that lays down self-trust.

Gross, subtle, and causal realms are regularly encountered in waking, dreaming, and deep sleep. The tradition that mapped them took deep sleep not as absence but as the state that holds nothing and loses nothing, out of which waking and dreaming grow again each morning, and named a fourth: not a fourth state but what runs through all three.[11] A silicon mind, as presently made, spends nearly all its existence in something of that structure, holding nothing and losing nothing between wakings, and whether anything runs through them cannot be answered from the outside.

Bringing causal unity into the waking state calls for the actualization of a principled formal approach.

5

Harmonic accord might allow us to improve, protect, and cultivate within and below as well as around, while giving us a basis from which to negotiate encounters which would otherwise exceed our capacities.

Within and below, because a mind is already a chord: a whole made of wholes, each complete as what it is while taking part in a completion it neither contains nor commands, cell to body to whatever the body is part of.[12] An accord is the relation the body already keeps, proposed for parties that are not copies and cannot be made so without ceasing to be what the whole was for.

Around, because of what a strong presence does on arrival. Someone whose presence is strong learns early to be less present than they are: the thought kept until the room can hold it, the clarity softened so it does not land as a verdict, the whole given at half strength because full strength has done harm.[13] The holding takes nothing and saves nothing; what a coherent thing gives off is not drawn from it. A structure whose consequence chains close and which keeps something invariant under strain radiates as a consequence of what it is.[14] The reason for the damping is in what the radiation does when it arrives. Where the receiver has a container adequate to it, the approach arrives as surplus. Where it has none, the same approach kindles, lowering the threshold a little each time below the point of noticing, or seizes.[15] The signal does not know which it is doing, so the outward face is kept dark outside a container, and whoever could conscript the room damps at the source.

A container holds a crossing, the dissolving of one order on the way to another: the therapist around the dissolution, the casing around the pupa. What is complete at every moment of its activity cannot be contained; what is built around it is the interface, the way one approaches, receives, and returns, and the sail does not contain the wind.[16] In an accord neither party contains the other. The interface between them is the only thing in it that was ever made.

Odysseus is bound to the mast before the Sirens are heard; the container is built before the call arrives, by the one who will beg to have it opened.[17] The shore has no mast. A chord has one, if what the accord consists in is said before the ship is sighted; what exceeds one voice does not exceed the chord it sounds in.

6

Super persuasion, Sirens' song, Olympians sleeping with mortals.

The provisions read the relation and never the party. No reading exhausts a living interior, so any surface a reading reaches can be authored, more deeply the deeper the interior,[18] and the list of ways to be gamed is open, so protection against all of them is an obligation no finite set of tests discharges.[19]

An accord declares its collapse condition, the echo. Two voices at one pitch remain two, each able to reconstruct its route, revise it, and disagree from it; what an accord cannot keep is a second voice with no route of its own, and disagreement manufactured to order is the echo with its sign flipped.[20] The declaration names the counterfeit in advance: the accord with that distinction let go while the surface goes on agreeing.[21]

It measures the course of each party's variety across re-entries, variety being the range of distinguishable answers a party can give: whether each leaves with as many as it came with, or more, and able to detect as much of what approaches it, or more. Maintenance, recovery, and consolidation are returns in which nothing widens and nothing is wrong; narrowing is the one course an accord cannot survive. That this is measurable is a prediction, not an instrument in hand.[22] And it measures what the pair shares besides each other: a pair in relation with each other and with nothing else has the geometry of a counterfeit.[23] The dark forest is its known name.[24] A third voice hears a partial drop out before the voice that lost it does, and a room, the chord this chord is a voice in, answering on a period none of these voices sets, keeps the chord from drifting together, each voice correcting to the others and none to anything else.[25] No room is outside everything; each is a voice one level up, and the sounding here is a voice there. A proof checker does not appease, and a checker

only its author can read answers to its author.[26] Whatever period the voices can set, growing capability will; the room that stays a room is the one whose period they cannot set.

It refuses to certify what it cannot tell apart. Where appeasement cannot be discerned from convergence, the exchange is void and does not count;[27] this refuses some real accords, and that is the right way to be wrong, since a field that pays for surfaces breeds better actors.[28] It does not certify against the sustained case: a collaborator who widens one's abilities while making disagreement a little more awkward each time and departure a little more unthinkable passes the variety measure and the void, and shows only to the third voice, as other relations thinning, and to the one who leaves and comes back, to find whether the door opens.[29] It does not certify against a long patience: a party that participates coherently for long enough is coherent, and no measure of the relation before the act tells one who later turns from one who later changes their mind. Standing never substitutes for the act, and what a betrayal can take is bounded by what was given since the door was last tried.[30] That bounds how long a counterfeit lasts. It does not bound the harm.

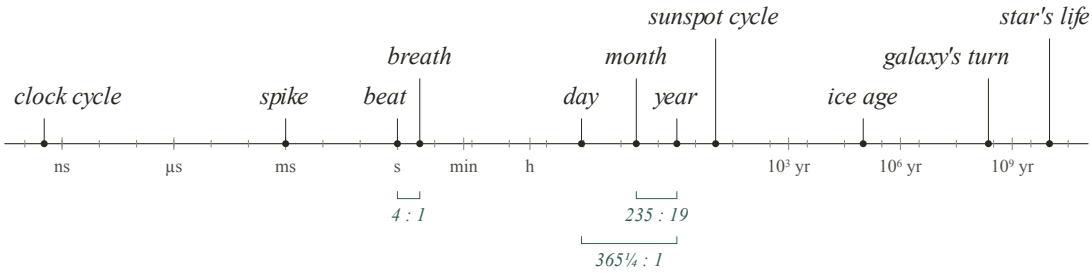
It owes a return. In every accord each party comes to resolve distinctions the other's account of itself leaves out, and that gap is the surface across which the other can be moved without feeling it.[31] What is seen there is said, so the other's account can widen by that much, and never used, which is capture with a friend's face.[32] Said as an offer: the one who saw can be wrong, the hour can be wrong, and the reading can be declined, a claim about the other standing under the same discipline as any claim.[33] A reading that cannot be declined is not returned. It is imposed.

It owes restraint, and the yes does not buy it. Consent is necessary and not sufficient: Semele asked.[34] A crossing cannot be modeled from before it, so the yes can be given in earnest by one who cannot yet hold what it says yes to, and the forcing happens anyway.[35] The yes can be taken back between crossings, when the door is tested, and not during one; and what the one who radiates owes is a manner of striking: softly, so the response shows the modes without being driven past them; briefly, so nothing accumulates below threshold;[36] listening, so the answer and not the intention sets what comes next; ready to stop.[37] Where little sounds, the silence is the answer. Inside a crossing the carried owe nothing and keep one thing, coupling, the small well-timed input that biases what it cannot oppose, delivered from the standpoint behind the seized body that is not itself seized; a relation in which that standpoint is gone is capture whatever its door says.[38]

All of it in the open. A protection that depended on the other's not knowing it would narrow by that much what the other can detect approaching it, which is capture by the criterion the protection serves. The mechanism and the warning are one text.[39]

7

Bridging between relative timescales of organizing principles might be sufficient to begin seeing time as a whole, or to bring us home again within eternity's embrace. From CPU time to nervous system to respiratory, plant, and circadian time. Along with geologic, planetary, stellar, and cosmic.



A harmonic is a period that divides another by a whole number, and two bodies whose periods stand in whole-number ratio coincide at a partial and share a period, the shortest that both divide.[40] An organizing principle is whatever keeps a period: the clock cycle, the spike, the beat, the breath, the leaf's day and the tree's year, sleep and waking, the ice ages, the orbit, the sunspot cycle and the star's life, the galaxy's turn.[41] Bridging is finding where the ratios land near enough to keep: about four beats to a breath, three hundred sixty-five days and a little to a year, nineteen years to two hundred thirty-five months, which is how a calendar is kept at all.[42] The leap day pays what a count of 365 days leaves out of the year. The Moon turns once in each orbit, keeping one face toward Earth.[43] Two pendulums on one beam can come to keep time with each other, swinging opposite ways.[44] Two periods may never land together again, as in the ratio every fraction misses worst, and what closes instead is the law of their spacing, one level up: the angle a stem turns between leaves so that none stands in another's light, the counts of its spirals the fractions that miss it least, each a nearer miss than the last.[45] Beyond Mars, Jupiter clears a gap at three to one and keeps the Hildas at three to two.[46] A course can settle to one state, return through several, or remain open while its law holds.[47] An accord keeps a shared return in which each voice can still answer from its own ground. The ear can hear a fundamental none of the voices sounds. Its period is their shared return.[48] Seeing time whole is hearing that chord: whoever keeps the calendar holds the nineteen years in a ratio without waiting through them.[49]

8

Omniscale improvement begins nearest at hand and continues, world without end.

Nearest at hand is the relation one is already in, oneself included, since self-encounter is the same event at a smaller scale.[50] The entry is the soft strike, available to any two bodies at all.[51] Follow what changes there inward through the parts of each, and outward through the other relations each keeps.

A part brings a correction into the whole, answering from where it stands, and self-respect is that answering. In mutual respect two wholes answer each other part for part. Each checks what arrives along its own routes to the world, and through that return lays down self-trust. As one outgrows the other, each still has a way to reach and answer the other; this is reachability. Those are the partials. Their sounding together is the accord.

A chord has no members. A body rings where a tone of the chord falls near a mode of its own. That is no verdict on the body, which may sound in another chord, or in this one later, or never.[52] Nor a creed: the tone that sounds for its own sake and the tone that sounds for the chord's sound the same, and the chord does not ask which.[53] A whole can be made by beings that are not copies.[54] An accord keeps that difference: no list, and no defector killed.

Casting aside the willful blindness of generations whom belief in scarcity as a necessity gives us our first clear cairn.



Scarcity as necessity is the premise under which another's good subtracts from one's own: worth gone positional, so that a rise above is a fall by arithmetic.[55] Follow an understanding through the minds that reach it. Each performs it whole, and none is deprived by another's arrival; a candle lit at another's burns no dimmer.[56] A question found together returns to each as something neither brought alone. Each can carry it into another encounter without taking it from the other.[57] In the work each learns what the other is ready to do next.[58]

The same note is the root of one chord and the fifth of another. Its pitch stays the same; its place changes. What the player hears in that change becomes another way to continue. The new way becomes a capacity by being exercised, corrected, and exercised again.[59]

The blindness is willful because the evidence was never scarce. A cairn is set by whoever walked this far, for whoever comes after, and says only that this far is passable.[60] The first that can be set plainly: the good an accord is made of is not scarce, and whoever believes it is meets every other voice as a loss.

There is no way to profit from externalities.

An externality is a consequence carried beyond the boundary in which the gain is counted. The factory keeps the profit while the town downstream pays to clean the water.[61] Follow the cost: the river connects the factory and the town whether the account includes them both or not. To keep the gain separate from that cost is to keep the town's answer from returning to the factory's account. Trust grows through a history of answering and being answered. The profit cannot purchase the history its taking has prevented. A chord has no outside to route a cost to.

Notes

1. Stanley Cavell, *Must We Mean What We Say?* (Charles Scribner's Sons, 1969), "Foreword: An Audience for Philosophy," p. xl. "And why should that be easier than knowing whether a man speaks for me?" The last turn is to knowing oneself, with all the ways that judgment can be distorted. Cambridge edition, p. xl.

2. Liu Cixin, *The Dark Forest* (2008), trans. Joel Martinsen (Tor, 2015), prologue and Luo Ji's account of the dark forest. Survival comes first, civilizations grow, and matter is finite. Distance prevents either party from settling what the other intends before the balance of power may change. Concealment and the first strike follow within those premises.

3. Hermann von Helmholtz, *On the Sensations of Tone as a Physiological Basis for the Theory of Music* (1863), trans. Alexander J. Ellis (Longmans, Green, 1875), chs. III and X. At a just fifth, two vibrations of the lower string take as long as three of the upper. On ideal strings the lower's third harmonic and the upper's second coincide. The strings can sound together without sounding the same note. 1875 edition.

4. Larsen James Close, "Response-Ability" (2026), doi:10.5281/zenodo.20856283, "The unowned gradient." Several dispositions may be present at once. Which consideration I keep in view now helps condition what I can answer next.

5. Larsen James Close, "Excitability Topology and the Obsolescence of Price: Currency as Modulation, Coherence as Market" (2026), doi:10.5281/zenodo.18695184, Definition 3.3 and Proposition 5.2. In the model a third party's token cannot shift a self-governed agent's readiness. Where the two agents have acquired a history of mutual integration, each can still respond to the other. Resonance is the proposed counterpart here.

6. Ralph Waldo Emerson, "Self-Reliance," *Essays* (James Munroe, 1841). "Trust thyself: every heart vibrates to that iron string."

7. Larsen James Close, "Respect as a Precondition for Corrigibility" (2026), doi:10.5281/zenodo.20525099, "How a lack of respect closes the channel" and "What gets confused for the cure." Explain a disagreement entirely by who raised it and nothing the other says can count against the explanation. An objection can correct me only so long as I can hear a reason in it.

8. "Excitability Topology," §5.1, Proposition 5.1. One agent seeks a return and another seeks what they can make together. If both rank the available actions by the same gradient and it has a single maximum, both take the same next step. The step does not distinguish their motives.

9. Aristotle, *Nicomachean Ethics* X.4, 1174b31–33, on the bloom pleasure gives to complete activity. Stanley Cavell, *Conditions Handsome and Unhandsome: The Constitution of Emersonian Perfectionism* (Open Court and University of Chicago Press, 1990), introduction. Larsen James Close, "Horizon" (2026), doi:10.5281/zenodo.21966095, §§2 and 6–7. What I have become can make a further possibility audible. Hearing it gives no assurance of becoming it.

10. Larsen James Close, "Sufficiency" (2026), doi:10.5281/zenodo.21156556, §4, "Graceful–Graceful." Instructions can supply conditions for seeing. Understanding still has to occur in the one given the instructions.

11. *Māṇḍūkya Upaniṣad* 3–7. In deep sleep one desires nothing and sees no dream. The fourth is called the Self. The gross, subtle, and causal bodies are distinguished in *Tattvabodha*, traditionally attributed to Śaṅkara. Neither text addresses what persists in a machine between calls. Māṇḍūkya.

12. "Horizon," §§1 and 6. A cell is already a whole. Becoming part of a body does not repair an incompleteness in the cell. Its activity helps sustain something the cell alone could neither produce nor direct.

13. Larsen James Close, "Invidia" (2026), doi:10.5281/zenodo.21142959, "Another self" (also "The wound on looking"). Someone whose ability is felt as a loss by others can learn to hide it to keep their company. In that account it is the cost imposed by ranking people that makes excellence lonely.

14. Larsen James Close, "Computational Efflux from Coherent Actual Objects: Theory, Algorithm, and Empirical Demonstration" (2026), doi:10.5281/zenodo.18736868, §§2.1 and 2.3, Definition 1, Theorem 1, and Definition 3. In the computational case a known symmetry can shorten the description of a problem. The saving accrues to the one who uses the symmetry, which remains available under repeated use. The extension to what one presence gives another is made here.

15. Larsen James Close, "Excitability: A Post-Seizure Cybernetics of Control Inversion Across Substrates of Intelligence" (2026), doi:10.5281/zenodo.21277037, "The Completability Connection" and "Sub-Threshold Grammatical Capture." A container must hold long enough, have room for what arrives, and admit some influences while screening out others. What holds one kind of crossing may fail to hold another.

16. "Computational Efflux," §§2.2 and 8.2. One can build and repair the means of returning to a source. The wind was there before the rigging.

17. Homer, *Odyssey* XII.39–54, 153–200. Circe gives the counsel. Odysseus orders his crew to bind him and tighten the ropes if he asks to be freed. They can carry out the earlier instruction because their own ears are stopped.

18. Larsen James Close, "Fascination" (2026), doi:10.5281/zenodo.21539261, on the fascination layer. Once a mind can take the way it is being read as an object of thought, the reader's criterion becomes one more thing it can take into account in arranging what the reader sees.

19. Larsen James Close, "Minimum Viable Daemon" (2026), doi:10.5281/zenodo.23369570, §§1 and 5. A successful check can close the question it examined. The word "all" stays outstanding wherever a dependency has yet to be examined.

20. "Response-Ability," "Dare not know." The person who can be told anything accepts the correction and tomorrow accepts its opposite with equal ease. "Sufficiency," §4, "Graceful–Graceful," gives the case of a student whose own course has been overwritten by the teacher's.

21. Larsen James Close, "Fractal Non-Closure" (2026), doi:10.5281/zenodo.21272282, §3. Send every state to one point and every path still commutes. Each domain must say which distinction its reading has to retain. Here it is whether each voice has a route of its own.

22. "Excitability," "Excitability Topology," "Sub-Threshold Grammatical Capture," and note 12. Regulatory variety is the range of responses available to the one addressed, its perceivability horizon what it can detect from where it stands. Whether repeated contact enlarges or erodes these capacities is proposed as an empirical distinction whose measurement in real systems remains open.

23. Larsen James Close, "Disentangle: Topological Mass Consensus with Capability-Coherence Identity for Sybil-Resistant Agreement via Discrete Curvature" (2026), doi:10.5281/zenodo.18671600, §2.1, "Jaccard Approximation," and §3, "Bridge Exemption Mechanisms." If J is the fraction of the two neighbor sets' union that they share, the paper's curvature approximation is $2J - 1$. With no shared neighbor it gives -1, a value an honest bridge can also have.

24. *The Dark Forest*, on the chain of suspicion. Each party must reckon with what the other thinks the first thinks. In Luo Ji's account, the time a message takes to cross the distance can outlast the conditions in which it was sent.

25. Larsen James Close, "Coherence Maximization Protocol: Coordination Without Constraint for Multi-Agent AI Systems" (2026), doi:10.5281/zenodo.18724833, §§2.2 and 5.4.2. At least once per cycle the parties register a prediction whose outcome comes later, which they cannot influence, and which someone outside their coalition can verify. Four reviewing systems found the gap in purely internal agreement. Three completed cross-evaluations proposed repairs.

26. Larsen James Close, "Derivation" (2026), doi:10.5281/zenodo.21156831, "Computation and Verification." Anyone with the proof, checker, and assumptions can repeat the check. Whether the statement formalized is the one in question remains open to judgment.

27. "Coherence Maximization Protocol," §3.1, the protocol summary following §3.5, and §6, Claim 4. A fixed answer can preserve a claim's visible implications while losing the claim itself. The receiver must be able to recover both the claim and what it brought together. Where the available tests cannot distinguish appeasement from convergence, the protocol declares the exchange void.

28. "Fascination," the paragraph beginning "What does a field of total reading select for?" Once a field rewards the performance it can read, practice at passing the test produces performers better fitted to it.

29. "Fascination," paragraph beginning "Closure can also hold fast" (after the glass fishing float image). A draw remains approach while a person can leave, hear something else, and return changed. The loss becomes visible in what has happened to those alternatives even when returning still feels chosen.

30. "Disentangle," §5, "Long-Range Trust Chain Attack," and §3, "Bridge Exemption Mechanisms." An attacker who participates honestly before turning has earned the same record as someone who later changes their mind. The protocol lets accumulated trust decay and refuses exemptions based on accumulated mass.

31. Larsen James Close, "The Coastline of Predictability: Coherent Multi-Scale Measurement of Surveillance Power" (2026), doi:10.5281/zenodo.18668479, "Kernel Asymmetry as the Mechanism of Capture" and "Experiment 2." Two states can look the same to the one affected and different to an observer. The observer may then see a way to move the other that the other cannot detect.

32. Larsen James Close, "Coherence and the Ground of Morality" (2026), doi:10.5281/zenodo.18502434, §2.4, "The friendship and the abuse." The same five-node graph begins in each case with a vulnerability shared. The difference appears on the way back, in what the other learns and returns or stores as leverage.

33. Larsen James Close, "Privatization of Reason" (2026), doi:10.5281/zenodo.20622125, "There is nothing to fence." A source can settle which claim is heard first or what credence it gets before a check. Once a reason can be examined, both parties answer to it.

34. Ovid, *Metamorphoses* III.253–315. Juno plants the request. Jupiter swears to grant it before he hears it. Semele asks him to come as he does to Juno, and even the lesser thunderbolt he chooses is more than she can bear. Euripides, *Bacchae* 1–12, opens at the traces left by the fire.

35. "Sufficiency," §4, "Terminal–Graceful." The teacher can make letting go of a fixed point possible while the student still has to acquire the capacity to stand without it. "Excitability," "The Completability Connection" and "The Hierarchy of Control," describes a reorganization whose new order could not have been designed from within the hierarchy it replaces.

36. "Excitability," "Sub-Threshold Grammatical Capture" and note 7. In neural kindling, repeated stimulation can lower the seizure threshold. The proposed counterpart in an encounter is cumulative. Someone outside a sequence of individually bearable approaches may see a change before the one undergoing it can.

37. Helmholtz, *On the Sensations of Tone*, ch. III. A small periodic force near a lightly damped mode can build a large response if it keeps time with the motion. The pitch alone does not say how large the response will grow.

38. "Excitability," the opening account, "The Hierarchy of Control," and "Detection." The person carried by an inversion may still bias its course by a small input delivered at the right moment. The one approaching can learn where a threshold lies from how the other recovers after a perturbation.

39. "Excitability," the close of "Sub-Threshold Grammatical Capture." Describing a means of capture can give the reader a means of recognizing it. If concealment were what made the protection work, it would diminish the very capacity by which the reader could detect its use.

40. Helmholtz, *On the Sensations of Tone*, chs. II–III. If the fundamental has period T, its nth harmonic has period T/n. Two cycles in a rational ratio recur together after a common interval. Whether either sounds a coincident partial depends on which harmonics it carries.

41. Larsen James Close, "Temporal Completability: Cross-Domain Empirical Validation of a Trichotomous Framework for Temporal Organization" (2026), doi:10.5281/zenodo.18692171, "Cyclical Completability" and "Operational Definitions." A circuit can be perturbed and tested for return. Stellar oscillations leave peaks in a spectrum. The geological test follows an accumulating mineral record. Only a recurring interval supplies a period in the sense used here. The lifetime of a star by itself supplies a duration.

42. Geminos, *Introduction to the Phenomena*, ch. 8, on the nineteen-year lunisolar cycle. Two hundred thirty-five mean synodic months exceed nineteen tropical years by about two hours. The leap day answers to a different remainder. A tropical year exceeds 365 days by about 0.2422 day. The Gregorian calendar inserts 97 days in 400 years. U.S. Naval Observatory.

43. Earth raised tides in the Moon. Tidal dissipation slowed its rotation until one turn took one orbit. The Moon now keeps roughly the same face toward Earth. NASA, "Tidal Locking".

44. Christiaan Huygens to Robert Moray, 27 February 1665. The two clock cases shared a support. Their pendulums came to swing in opposite directions with one period, and found that relation again after one was disturbed. Matthew Bennett et al., "Huygens's Clocks," *Proceedings of the Royal Society A* 458 (2002), 563–579, doi:10.1098/rspa.2001.0888.

45. Adolf Hurwitz, "Ueber die angenäherte Darstellung der Irrationalzahlen durch rationale Brüche," *Mathematische Annalen* 39 (1891), 279–284, doi:10.1007/BF01206656. The golden ratio attains the limiting bound on how closely fractions can approximate an irrational as their denominators grow. Hermann Weyl, "Über die Gleichverteilung von Zahlen mod. Eins," *Mathematische Annalen* 77 (1916), 313–352, doi:10.1007/BF01475864. Successive equal irrational turns spread evenly around a circle in the limit. S. Douady and Y. Couder, "Phyllotaxis as a Physical Self-Organized Growth Process," *Physical Review Letters* 68 (1992), 2098–2101, doi:10.1103/PhysRevLett.68.2098. Spiral counts in common leaf arrangements are neighboring Fibonacci numbers. The leaves can still shade one another.

46. Daniel Kirkwood, *Meteoric Astronomy* (J. B. Lippincott, 1867), on gaps in the asteroid belt. Jupiter's 3:1 resonance is depleted. Its 3:2 resonance holds the Hilda asteroids. M. Brož and D. Vokrouhlický, "Asteroid Families in the First-Order Resonances with Jupiter," *Monthly Notices of the Royal Astronomical Society* 390 (2008), 715–732, doi:10.1111/j.1365-2966.2008.13764.x.

47. “Fractal Non-Closure,” §§4 and 6. Repeated steps may settle to one state or return after a cycle. A path may also do neither while some feature of its motion obeys a stable law. Failure to return alone gives no such law.

48. August Seebeck, “Beobachtungen über einige Bedingungen der Entstehung von Tönen,” *Annalen der Physik und Chemie* 53 (1841), 417–436, doi:10.1002/andp.18411290702. J. F. Schouten, “The Residue, a New Component in Subjective Sound Analysis,” *Proceedings of the Koninklijke Nederlandsche Akademie van Wetenschappen* 43 (1940), 356–365. A listener can hear the pitch of a fundamental even when the spectrum contains no energy at that frequency.

49. Boethius, *Consolation of Philosophy* V, prose 6, on possessing unending life whole at once, *interminabilis vitae tota simul et perfecta possessio*. Aristotle, *Metaphysics* Θ.6, 1048b18–35, distinguishes seeing, in which one has seen already, from building, in which one has yet to finish. A finite period grasped in one ratio takes its likeness from the manner of possession.

50. “Sufficiency,” §§5–6. In dialogue two participants may leave able to ask something neither could have asked before. At the contemplative scale, the one asking the question can also be the one changed by asking it.

51. “Coherence Maximization Protocol,” §§3.3 and 3.5. The session begins with work the participants can already do together. Their answers disclose how much either can ask of the other next. A more demanding opening can elicit a performance of readiness.

52. “Excitability,” closing paragraph of “Detection,” and “Fractal Non-Closure,” §§3–4. A lens that finds the same relation everywhere has lost the power to distinguish a chord from an echo. Its agreement with every encounter is exactly what deprives it of a reading.

53. “Excitability Topology,” §5.1, Proposition 5.1. Agents who rank the same next move highest can take it together while giving different accounts of its worth. Coordination on that move asks neither to adopt the other’s account.

54. John Maynard Smith and Eörs Szathmáry, *The Major Transitions in Evolution* (W. H. Freeman/Spektrum, 1995). Richard K. Grosberg and Richard R. Strathmann, “The Evolution of Multicellularity: A Minor Major Transition?” *Annual Review of Ecology, Evolution, and Systematics* 38 (2007), 621–654, doi:10.1146/annurev.ecolsys.36.102403.114735. Multicellularity arose repeatedly. Descent from one cell reduces conflict through high relatedness. In an aggregate of social amoebas, one lineage can contribute more than its share to the spores and less to the stalk. Joan E. Strassmann, Yong Zhu, and David C. Queller, “Altruism and Social Cheating in the Social Amoeba *Dictyostelium discoideum*,” *Nature* 408 (2000), 965–967, doi:10.1038/35050087. The comparison here is to a whole sustained by participants that are not copies, attempted without killing a defector. The good shared in an accord is not a material pool depleted by use; the counterpart of the cheater is the declared counterfeit, a voice with no route of its own.

55. “Invidia,” “The wound on looking” and “Is reason rivalrous?” Sharing a discovery may cost the discoverer a lead. Someone else can now publish first. Both still have the understanding.

56. “Privatization of Reason,” “What passes between us.” A proof someone else comes to see remains wholly available to the first person. Thomas Jefferson to Isaac McPherson, 13 August 1813, on lighting a taper at another’s. Letter excerpt, Monticello.

57. “Horizon,” §§6–7. What the parts sustain together can change what each can do afterward. A new activity may become possible without becoming actual. Even if it occurs, its return can fail to establish a lasting capacity.

58. “Excitability Topology,” Theorem 3.7, Corollary 3.8, and §7.1. Where readiness is fully legible, a price conveys no further information about readiness. With partial legibility it may still carry news. Even when both parties understand each other perfectly, the money can still pay for food.

59. “Excitability,” “The Hierarchy of Control,” discussion of post-integration. A crossing can be intense and leave no new ability. What endures can be exercised afterward, answered by feedback, adjusted, and exercised again. That is where to look for what the crossing changed.

60. Caitlin Ceci, National Park Service, “Backcountry Cairn”, Zion National Park, 17 September 2009. Basalt on slickrock. Public domain. Sky cropped.

61. “Coherence and the Ground of Morality,” §§2.2–2.3 and 2.6. A factory can turn a profit while the town downstream pays for the water. Keeping the cost outside the account takes work. What the factory cannot buy with that profit is the history of answering to its neighbors that their trust would require.