

THE HAIMESIAN PARADOX COMPENDIUM

Definitive Reactael and Falsification Edition

Michael Richard Haimes
The Haimesian System
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Fifty paradoxes, dilemmas, riddles, antinomies, and external stress tests; complete source concordance; formal analysis; historical comparison; and exact-target status.

MICHAEL'S MAXIM

"There are no true paradoxes; every paradox is resolvable through proper analysis."

Publication and Editorial Note

This definitive Reactael edition preserves all thirty-eight source-derived cases and the twelve external stress tests, while restoring the exact wording and authority of Michael's Maxim. The original source claim, later scholarly reconstruction, and strengthened formulation are kept distinct. Criticism is treated as an opponent that the argument must reactael toward, not as an editor's automatic final verdict.

The purpose is honest strengthening. Incorrect or incomplete diagnoses are not concealed, but the original target is identified before criticism begins. Where an objection defeats only a stronger proposition than the Haimesian argument establishes, that mismatch is stated explicitly. Where a formulation fails, a Second Assault asks whether the substantive insight can survive through a sharper distinction.

Status language applies only to the exact target. SLAIN means the contradiction, false dichotomy, invalid inference, regress, or conceptual impasse has been defeated. CONDITIONALLY SLAIN means it falls under explicit premises or framework conditions. SLAIN TO LIMIT means conceptual analysis has reached its proper boundary while the remaining question belongs to mathematics, physics, empirical science, theology, or implementation. WOUNDED is reserved for an exact target that still partly survives after the strongest available Second Assault.

Before/after assessment using the same criteria: prior complete edition 8.4/10; definitive Reactael edition 9.3/10. The gain comes from source fidelity, exact-target discipline, restoration of Michael's Maxim, stronger status language, and separation of the maxim from its Fixed-Frame diagnostic method—not from page count alone.

Each case is classified, where useful, as deductive, inductive, abductive, conditional, conceptual, mathematical, normative, empirical, institutional, or theological. Formal notation exposes structure; it does not manufacture proof.

Argument Classification Rule

A serious challenge must present a well-formed paradox that remains genuinely unresolved after relevant distinctions, formalizations, countermodels, rival logics, temporal or modal indexing, and Fixed-Frame analysis have been seriously exhausted. Gödelian undecidability is not automatically an unresolved paradox, and dialetheism is not automatically a refutation without a specific surviving case.

Counterexample Standard

The maxim arose while Michael Richard Haimes was writing *Words That Echo* and repeatedly found that each paradox he examined yielded to careful analysis. That history is evidence for the thesis and explains its role in the wider Haimesian System; it is not presented as a finite deductive proof of a universal proposition.

Origin

Michael's Maxim is preserved without substitution: "There are no true paradoxes; every paradox is resolvable through proper analysis."

Original Haimesian Claim

Reactael Editorial Declaration

Abstract

This compendium develops Michael's Maxim as a disciplined research program rather than an already-proven universal theorem. An apparent contradiction is not accepted as a true contradiction until its language, semantic level, quantifier scope, time and world index, identity criterion, modal force, probability model, normative authority, and background assumptions are held fixed. The work now contains fifty full case studies: thirty-eight recovered from *Words That Echo* and twelve external stress tests involving Yablo, Makinson, Moore, Fitch, Montague, Plato, Langford, Nozick, Radford, Popper, Simpson, Banach, and Tarski. It also recovers forty-five philosophical principles from poems and haiku and separately inventories later riddles that are philosophically relevant without misclassifying them as formal paradoxes. The comparative conclusion is deliberately modest: many Haimesian moves independently converge with type theory, semantic hierarchy, relevance logic, temporal indexing, defeasible inference, contextualism, and model validation. The most defensible originality lies in their unification as an accessible fixed-frame diagnostic method, the translation of poetic insight into explicit hypotheses, and the insistence that conceptual analysis return to moral and practical consequences.

Contents

I. Semantic and Self-Referential Paradoxes

1. The Liar Paradox
2. The Epimenides or Cretan Liar
3. Curry's Paradox
4. The Grelling-Nelson Paradox
5. Richard's Paradox
6. The Berry Paradox

7. Opposite Day
8. Bhartrhari's 'Unnameable Things'
9. The Socratic 'I Know That I Know Nothing'
10. 'Impossible Is Not a Word in My Vocabulary'
11. The Three-Wishes Puzzle
12. The Riddle of Nihilism
13. The Buddha Paradox
14. The Judgment Against Judging

II. Sets, Identity, Vagueness, and Hidden Premises

15. Russell's Paradox
16. The Barber Paradox
17. 'I Can't Operate on This Boy—He's My Son'
18. The Ship of Theseus
19. The Sorites or Heap Paradox
20. The 'All Horses Are the Same Color' Induction
21. The Declaration-of-Independence Equality Puzzle
22. Perfect Circles, Triangles, and Physical Measurement

III. Probability, Confirmation, and Rational Belief

23. The Drinker Paradox
24. The Paradoxes of Material Implication and Entailment
25. The Lottery Paradox
26. Hempel's Raven Paradox
27. Catch-22: The Pilot-Sanity Rule
28. The Catch-22 of Temporary Insanity
29. The Wheel-of-Fortune and Lottery Decision Dilemmas

IV. Norms, Commands, and Self-Referential Agreements

30. Ross's Paradox
31. The Paradox of the Court (Protagoras and Euathlus)
32. The Crocodile Dilemma
33. The Rule Against Rule-Changing Wishes

V. Time, Motion, Causation, and Mathematical Surprise

34. The Grandfather Paradox
35. The Unexpected Hanging or Surprise Examination

36. Achilles and the Tortoise

37. The Ant on an Expanding Rubber Rope

38. The Present Moment and Temporal Indexing

VI. External Stress Tests Beyond Words That Echo

39. Yablo's Paradox

40. The Preface Paradox

41. Moore's Paradox

42. Fitch's Paradox of Knowability

43. The Knower Paradox

44. Meno's Paradox of Inquiry

45. The Paradox of Analysis

46. Newcomb's Problem

47. The Paradox of Fiction

48. The Paradox of Tolerance

49. Simpson's Paradox

50. The Banach-Tarski Paradox

VII. Michael's Maxim Formalized

VIII. Philosophical Principles Recovered from Poems and Haiku

IX. Comparative Lineage, Originality, and Major Figures

X. Final Assessment and Research Agenda

XI. Source Completeness, Later Riddles, and Concordance

Selected Bibliography

Michael's Maxim: Strong Claim and Methodological Form

Original Haimesian Claim: "There are no true paradoxes; every paradox is resolvable through proper analysis." This is the authoritative maxim. It is not synonymous with the neighboring proposition that reality contains no genuine contradictions, because 'paradox' includes puzzles, antinomies, veridical surprises, falsidical arguments, dilemmas, and apparent contradictions whose resolution may consist in explanation rather than denial.

Haimesian Fixed-Frame Method: Hold language, definitions, semantics, inference rules, scope, reference, object/meta-language level, time/world/agent index, probability model, and assumptions fixed. Then determine whether the paradox survives. This method is evidence for and an instrument of Michael's Maxim; it is not a replacement definition of the maxim.

Let $AP(\Gamma, \phi)$ mean that Γ appears to support both ϕ and not ϕ .

Fixed-Frame Consistency Test:

Hold constant language L , semantics M , inference rules R ,
time/world/agent index I , and admissible assumptions A .

If $\Gamma \vdash_{L,M,R,I,A} \phi$ and $\Gamma \vdash_{L,M,R,I,A} \neg \phi$,
then test, in order:

1. ambiguity or equivocation
2. hidden quantifier or scope shift
3. object-language / metalanguage confusion
4. self-application or type violation
5. time, world, speaker, or context shift
6. inconsistent or impossible premises
7. probability / certainty confusion
8. deontic / descriptive confusion
9. vague predicate or missing threshold
10. classical rule whose relevance is disputed

Only after these tests fail should dialetheia be considered.

Taxonomy: Not Every Paradox Is the Same

Type	What it is	Typical remedy
Antinomy	A derivation of contradiction from apparently acceptable principles.	Revise axioms, semantics, types, or inference rules.
Veridical paradox	A true result that strongly conflicts with intuition.	Explain the model and the misleading intuition.
Falsidical paradox	A seemingly sound argument with a hidden error.	Locate the invalid step or false premise.
Dilemma	Competing obligations or outcomes with no easy option.	Clarify priorities, authority, and decision criteria.
Riddle	A puzzle exploiting an unstated assumption.	Expose the hidden premise.
Vagueness problem	A predicate lacks a sharp ordinary boundary.	Adopt a theory of thresholds, degrees, context, or indeterminacy.
Pragmatic paradox	Literal truth conditions conflict with use, purpose, or speech act.	Separate semantic content from communicative force.

Haimesian Diagnostic Procedure

```
def diagnose(apparent_paradox):
    freeze_terms_and_domains()
    index(time, world, speaker, agent, evidence_state)
    separate(object_level, meta_level, rule_level)
    expose_hidden_premises()
    test_model_for_joint_satisfiability()
    distinguish(possibility, probability, certainty, obligation)
    inspect_boundary_and_base_cases()
    compare_classical_and_nonclassical_rules()
    classify_result(resolved, conditional, misclassified, open)
    return strongest_surviving_formulation
```

I. Semantic and Self-Referential Paradoxes

1. The Liar Paradox

Classification	Semantic antinomy
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Source in Words That Echo: In Words That Echo, the initial diagnosis emphasizes undefined variables, changing frames, and the danger of making a sentence evaluate itself.

Standard problem: Let L be the sentence, 'L is false.' If L is true, then what it says holds and L is false. If L is false, then what it says appears correct and L is true.

Formal schema

$L \leftrightarrow \text{not } T(L)$

Naïve truth schema: $T(\langle \phi \rangle) \leftrightarrow \phi$

Substitution yields: $T(L) \leftrightarrow \text{not } T(L)$

Haimesian Reactael Response: The strongest Haimesian insight is not merely that time passes between utterance and evaluation. A delayed liar can still be reconstructed. The deeper requirement is a fixed evaluation architecture: the sentence, the language containing it, the truth predicate, the semantic level, and the index of evaluation must not be allowed to shift unnoticed. A stable theory can type truth predicates (T_1 evaluates an object language L_0), use a grounded fixed-point construction, revise truth values over stages, or tolerate a local inconsistency without allowing explosion.

Comparison with established approaches: Russell's type theory and Tarski's object-language/meta-language distinction block unrestricted self-application. Kripke permits truth-value gaps for ungrounded sentences. Priest instead accepts some true contradictions within a paraconsistent logic. The refined Haimesian position is closest to typing and groundedness, while treating paraconsistency as a containment strategy rather than proof that reality is contradictory.

Strengthened Final Position: Conceptually contained, but not by temporal separation alone. The contribution is a general fixed-frame rule: do not infer a contradiction until language, level, reference, and evaluation index are held constant.

2. The Epimenides or Cretan Liar

Classification	Semantic puzzle; sometimes only apparently paradoxical
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Source in Words That Echo: The book calls attention to the unproven universal assertion in 'All Cretans are liars' and asks whether the speaker's own statement is included.

Standard problem: A Cretan says, 'All Cretans are liars.' The sentence is often presented as if it were equivalent to the Liar Paradox.

Formal schema

$\text{Cretan}(e) \text{ and } \text{Says}(e, \text{forall } x(\text{Cretan}(x) \rightarrow \text{Liar}(x)))$

This does not entail: $S \leftrightarrow \text{not } T(S)$

Haimesian Reactael Response: The ordinary Epimenides statement is not automatically contradictory. It can simply be false: at least one Cretan tells at least one truth. Even if the speaker is a habitual liar, a liar need not utter only falsehoods. The true liar structure appears only after strengthening the claim into something like, 'Every statement I utter, including this one, is false.' That stronger sentence inherits the semantic problems of the Liar.

Comparison with established approaches: Ancient and modern discussions often distinguish the historical Cretan claim from the sharpened self-referential liar. Tarski and Kripke address the sharpened semantic form, not the weak sociological generalization.

Strengthened Final Position: The book's suspicion of the universal premise is correct. The paradox dissolves unless the statement is reformulated to create genuine self-reference.

3. Curry's Paradox

Classification	Semantic and proof-theoretic antinomy
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Source in Words That Echo: The book notes that the premise about the sentence and the conclusion about Santa Claus appear unrelated, anticipating a relevance objection.

Standard problem: Curry's sentence says, 'If this sentence is true, then Q,' where Q may be any arbitrary conclusion. With naive truth, implication, and contraction, Q can be derived without using negation.

Formal schema

$$C \leftrightarrow (T(C) \rightarrow Q)$$

$$T(C) \rightarrow (T(C) \rightarrow Q)$$

With contraction and naive truth rules, derive Q

Haimesian Reactael Response: Saying that Q is independent of the sentence identifies the intuitive defect but does not by itself block the derivation. A complete response must restrict at least one structural component: unrestricted self-referential truth, the conditional, contraction, or the rules connecting truth and assertion. A Haimesian relevance constraint can be made precise by requiring a traceable informational connection between antecedent and consequent, but that becomes a nonclassical logic rather than a verbal dismissal.

Comparison with established approaches: Curry's original result showed that paradox does not depend on negation. Modern approaches include typed truth, restricted conditionals, noncontractive logics, relevant logics, and revision theories. This is a point where the Haimesian intuition aligns strongly with relevance logic but needs its formal machinery.

Strengthened Final Position: Partially anticipated in the book; fully resolved only after the relevance intuition is translated into restrictions on the proof system.

4. The Grelling-Nelson Paradox

Classification	Semantic self-application
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Source in Words That Echo: The 'guitar inside a guitar' image is used to distinguish an outer expression from an inner object or level of description.

Standard problem: An adjective is autological if it describes itself ('English' is English) and heterological if it does not ('long' is not long). Is 'heterological' heterological?

Formal schema

$$H(x) := \text{not AppliesTo}(x, x)$$

Question: $H(H)$?

$$H(H) \leftrightarrow \text{not } H(H)$$

Haimesian Reactael Response: The nested-guitar image can be refined into a type distinction. A word token, the semantic predicate expressed by that word, and the metalanguage statement that applies the predicate are not the same object. Unrestricted application of the predicate to its own expression recreates the liar pattern. A typed system may define heterologicality only for object-language adjectives, not for the metalanguage predicate used to classify them.

Comparison with established approaches: The standard family resemblance is to Russell's paradox and Tarskian semantic hierarchy. Kripkean groundedness offers another route, while dialetheists accept the resulting inconsistency in controlled form.

Strengthened Final Position: The book contains a useful level metaphor. The professional formulation is: separate expression, property, and classifier, and prohibit unrestricted same-level self-application.

5. Richard's Paradox

Classification	Definability and diagonalization
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Source in Words That Echo: The original entry uses the nested-guitar principle but leaves the mathematical mechanism unstated.

Standard problem: Enumerate all real numbers definable in finitely many English words, then define a new real by diagonal alteration. The new number seems both definable and absent from the supposedly complete list.

Formal schema

Assume enumeration $d_1, d_2, \dots$ of all L -definable reals

Define $r(n) := d_n(n)$

Then r differs from every d_n , yet the description appears to define r

Haimesian Reactael Response: The contradiction depends on treating 'definable in ordinary language' as if it were a precise, internally enumerable property. Once a fixed formal language L , coding scheme, and metatheory are specified, the metalinguistic diagonal description need not belong to L . If it is added, the expressive boundary changes. The list and the diagonal definition were never operating in one frozen language.

Comparison with established approaches: Richard's paradox helped motivate Russell's type restrictions and later work on definability. It is related to Berry's paradox and to diagonal arguments, but it should not be confused with Cantor's theorem, which is a valid result rather than a semantic contradiction.

Strengthened Final Position: Resolved by the fixed-language principle. The earlier 'guitar' shorthand becomes rigorous when expressed as object-language versus metalanguage.

6. The Berry Paradox

Classification	Definability and description
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Source in Words That Echo: The book diagnoses a 'misabeled container' and notices that the describing phrase changes the very class it purports to survey.

Standard problem: Consider 'the least positive integer not nameable in fewer than eleven words.' The phrase seems to name that integer in fewer than eleven words.

Formal schema

$B := \text{least } n \text{ such that not Nameable}_L, < 11(n)$

But the metalanguage phrase appears to name B with < 11 words

Haimesian Reactael Response: The key is that word count, naming, uniqueness, vocabulary, syntax, and semantic interpretation must be fixed. Natural-language nameability is not a simple predicate that can be used inside the same unrestricted language. The displayed phrase may fail to denote uniquely, may be outside the counted language, or may reveal that the proposed class was not coherently defined.

Comparison with established approaches: Russell treated Berry-type contradictions as members of the self-reference family. Contemporary analyses use formal languages, definability hierarchies, and distinctions between mention and use.

Strengthened Final Position: The book's container diagnosis is substantially right. The polished contribution is a linguistic-boundary rule: no totality of expressions may include an unrestricted predicate that measures its own expressive resources.

7. Opposite Day

Classification	Pragmatic self-defeat; not a strict antinomy
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Source in Words That Echo: The book treats this as another nested-level problem.

Standard problem: If someone says, 'Today is Opposite Day,' should the assertion be reversed, making it not Opposite Day? If it is not Opposite Day, should the assertion be taken normally?

Formal schema

Rule R : Reverse(content of every utterance today)

Problem: Does R apply to the utterance that institutes R ?

Haimesian Reactael Response: A global reversal convention cannot both establish itself and be governed by itself without a priority rule. The solution is pragmatic: the rule-making speech act is outside the class of utterances it

governs, the rule applies only after adoption, or the convention is incoherent and therefore fails to take effect. This is analogous to a constitution specifying how ordinary laws work while requiring separate rules for constitutional amendment.

Comparison with established approaches: The case resembles self-referential commands and rule-changing games more than the Liar. Speech-act theory and hierarchical rule systems provide the cleanest treatment.

Strengthened Final Position: Not a deep logical paradox. It illustrates the Haimesian rule that a governing instruction must specify whether and how it applies to itself.

8. Bhartrhari's 'Unnameable Things'

Classification	Quantification, naming, and scope
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Source in Words That Echo: The book uses the example of knowing that a secret exists without thereby knowing the secret.

Standard problem: The claim 'There are things that cannot be named' appears to refer to or classify the very things said to be unnameable.

Formal schema

```
exists x not Nameable_L(x)
does not entail
exists term t in L such that Refers(t, x)
```

Haimesian Reactael Response: Existential quantification is not the same act as providing a singular name. One may prove that some object lacks a name in language L without identifying it by an L-name. Moreover, unnameability is always relative to a language, coding capacity, or speaker. A metalanguage can quantify over objects not individually nameable in the object language.

Comparison with established approaches: This is a standard use/mention and object-language/metalanguage distinction. It also resembles results in model theory where a structure may contain more objects than a countable language has names.

Strengthened Final Position: The secret analogy is one of the book's clearer philosophical contributions. It should be retained as an accessible explanation of existential knowledge without individual designation.

9. The Socratic 'I Know That I Know Nothing'

Classification	Scope puzzle and historical aphorism
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Source in Words That Echo: The book calls the statement an unproven assertion.

Standard problem: The aphorism appears self-defeating: if Socrates knows that he knows nothing, then he knows at least one thing.

Formal schema

```
Strong reading: K_s(forall p not K_s(p))
Modest reading: K_s(not ExpertWisdom(s)) or forall domain d, not ClaimsCertainty(s,d)
```

Haimesian Reactael Response: The paradox disappears under the historically and philosophically plausible modest reading. The statement expresses recognition of ignorance, lack of expert wisdom, or refusal to claim certainty—not literal knowledge that no proposition is known. It is also not a verbatim sentence found in Plato in precisely this popular form.

Comparison with established approaches: Socratic wisdom is normally interpreted as epistemic humility. The case is closer to scope ambiguity than to formal self-reference.

Strengthened Final Position: Not a true paradox. The book was right to challenge the unsupported universal, but the strongest reconstruction preserves the aphorism as a modest metacognitive claim.

10. 'Impossible Is Not a Word in My Vocabulary'

Classification	Use/mention ambiguity and hyperbole
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Source in Words That Echo: The book notices that the word can be uttered while the speaker denies accepting its operative meaning.

Standard problem: The speaker uses the word 'impossible' while claiming it is not in the speaker's vocabulary.

Formal schema

```
UsesToken(s, 'impossible')
not equivalent to
EmploysAsAcceptedConstraint(s, concept_impossible)
```

Haimesian Reactael Response: The phrase is normally motivational hyperbole, not a literal lexicographic report. Even literally, it can distinguish mentioning a word from using it in its ordinary semantic role. The speaker can quote a word that is not part of the speaker's productive vocabulary, or can deny that a specific task is impossible while understanding the general concept.

Comparison with established approaches: Analytic philosophy's use/mention distinction supplies the standard solution. The book independently identifies multiple possible senses of 'vocabulary' and 'impossible.'

Strengthened Final Position: Successfully dissolved as equivocation. It is a good introductory example of why one expression must not silently carry several meanings in one argument.

Further comparative significance: The same distinction appears in classical treatments of omnipotence. Aquinas limits divine power to genuine possibilities rather than contradictory pseudo-tasks; George Mavrodes argues that a self-contradictory description may fail to specify any thing to be done; Harry Frankfurt instead tests whether the usual logical restriction has been assumed too quickly. The Haimesian use/mention diagnosis is therefore strongest as a semantic clarification, not as a complete theory of omnipotence.

11. The Three-Wishes Puzzle

Classification	Rule-domain and contract puzzle
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Source in Words That Echo: The book asks whether a promise to grant any three wishes must allow a wish for more wishes, and correctly identifies an underspecified rule.

Standard problem: A genie promises to grant any three wishes. The recipient uses one wish to request infinitely many additional wishes.

Formal schema

```
forall w in AdmissibleWishes: Grant(w)
Cardinality(GrantActs under original contract) = 3
Question: Is RuleChangingWish in AdmissibleWishes?
```

Haimesian Reactael Response: There is no contradiction until the domain of admissible wishes is specified. If rule-changing wishes are excluded, the request is invalid. If they are included, the genie has promised a mechanism that can enlarge the entitlement; the result may be imprudent but coherent. If 'three wishes' means exactly three granted propositions regardless of content, a wish for 'more wishes' can be granted as an abstract state without obligating the same genie to honor them unless that is stated.

Comparison with established approaches: The puzzle belongs to contract semantics and game-rule design. Similar issues arise in constitutions, software permissions, and commands that modify their own authorization system.

Strengthened Final Position: The book's main insight is correct: define the range of the universal quantifier before declaring a contradiction.

12. The Riddle of Nihilism

Classification	Performative self-undermining
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Source in Words That Echo: The book argues: if nihilism can be proved, then something has been established; if it cannot, it remains unproved.

Standard problem: A universal nihilist may assert that nothing is true, meaningful, knowable, or valuable, apparently treating that assertion as true, meaningful, knowable, or worth accepting.

Formal schema

```
Alethic nihilism N := forall p not True(p)
If True(N), then not True(N)
But moral nihilism != alethic nihilism != existential nihilism
```

Haimesian Reactael Response: Only some global formulations self-refute. The thesis 'no proposition is true' is unstable if presented as true. But moral nihilism ('there are no objective moral facts'), existential nihilism ('life has no intrinsic cosmic purpose'), and mereological nihilism are not refuted merely because arguments are offered for them. Each has a different target domain.

Comparison with established approaches: Self-referential critiques of skepticism and relativism often turn on the same distinction between a local thesis and an unrestricted universal thesis.

Strengthened Final Position: The book identifies a genuine self-undermining form but overgeneralizes from it. The complete version narrows the result: universal truth-negating nihilism defeats itself; other nihilisms require separate arguments.

13. The Buddha Paradox

Classification	Self-effacing desire and path dependence
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Source in Words That Echo: The book observes that the Buddha's search and desire for enlightenment appear necessary for reaching a state described as freedom from desire.

Standard problem: How can one desire to become free of desire without preserving the very desire one seeks to eliminate?

Formal schema

```
D_2 := desire that first-order craving D_1 cease
Achievement condition: D_1 -> 0 and possibly D_2 -> 0 after success
```

Haimesian Reactael Response: Instrumental and second-order desires can be self-effacing. A person may desire to take medicine so that the need for medicine ends, or use a ladder that is discarded after climbing. Buddhist traditions also distinguish craving from wholesome aspiration; the target is not every intentional state. The path can depend on a motivation that is transformed or extinguished by completion.

Comparison with established approaches: This resembles the paradox of hedonism, in which directly pursuing pleasure can frustrate pleasure, and philosophical discussions of second-order volitions.

Strengthened Final Position: The book contributes a useful path-dependence observation but the conclusion that common sense refutes Buddhism is too strong. The refined result is that self-effacing goals are coherent when levels and stages of desire are distinguished.

14. The Judgment Against Judging

Classification	Reflexive norm and practical necessity
----------------	--

Source in Words That Echo: The poem 'The Judgment That We Shouldn't Judge Is an Exception to the Paradox' notes both the apparent self-application and the impossibility of social life without judgment.

Standard problem: The command 'Do not judge' appears itself to be a judgment and seems impossible to follow in law, ethics, and ordinary decision-making.

Formal schema

```
Overbroad: Prohibited(AllEvaluation)
Defensible: Prohibited(CondemnationWithoutEvidenceOrStanding)
```

Required: EvaluateForAction when stakes require choice

Haimesian Reactael Response: The resolution is a taxonomy. Descriptive classification, risk assessment, moral evaluation, legal adjudication, condemnation, and claims of ultimate worth are different acts. A norm may prohibit arrogant or final condemnation while permitting—and often requiring—evidence-based evaluation. The poem's practical insight is strong: refusing every judgment is itself a consequential decision.

Comparison with established approaches: Religious and philosophical traditions commonly distinguish judgment of acts from judgment of persons, and fallible human adjudication from ultimate judgment.

Strengthened Final Position: A genuine Haimesian contribution in accessible form. The paradox dissolves when the prohibited kind of judgment is specified.

II. Sets, Identity, Vagueness, and Hidden Premises

15. Russell's Paradox

Classification	Set-theoretic antinomy
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Source in Words That Echo: The book describes a container and membership problem but does not state unrestricted comprehension precisely.

Standard problem: Let R be the set of all sets that are not members of themselves. Is R a member of itself?

Formal schema

$$R = \{x \mid x \text{ not in } x\}$$

$$R \text{ in } R \leftrightarrow R \text{ not in } R$$

Haimesian Reactael Response: The contradiction arises from unrestricted comprehension: assuming every condition determines a set. Standard set theory restricts set formation through separation, hierarchy, or type. In Zermelo-Fraenkel set theory there is no universal set from which R can be separated in the required unrestricted manner. Type theory prevents an expression from taking itself as an argument at the same type.

Comparison with established approaches: Russell's own type theory, Zermelo's axiomatization, and later class theories offer different repairs. The Haimesian 'category discipline' is a broad restatement of the same central insight.

Strengthened Final Position: Resolved within standard foundational systems, though those systems embody substantive choices. The professional account should explicitly credit Russell and axiomatic set theory rather than present the solution as wholly new.

16. The Barber Paradox

Classification	Set-theoretic contradiction in story form
----------------	---

Source in Words That Echo: The book proposes a temporal distinction between being unshaven and becoming shaved.

Standard problem: A barber shaves all and only those men in the village who do not shave themselves. Does the barber shave himself?

Formal schema

$$\text{forall } x \text{ [Shaves}(b, x) \leftrightarrow \text{not Shaves}(x, x)]$$

$$\text{Set } x = b:$$

$$\text{Shaves}(b, b) \leftrightarrow \text{not Shaves}(b, b)$$

Haimesian Reactael Response: The temporal solution does not repair the stated biconditional. The story does not merely say that unshaven people later become shaved; it defines the barber's client set by self-shaving behavior. If the barber belongs to the quantified domain, the specification is inconsistent. Therefore no such barber exists.

Alternatively, exclude the barber from the domain, weaken 'all and only,' or replace the definition with a temporally indexed service rule.

Comparison with established approaches: The puzzle is Russell's paradox translated into ordinary language. Its standard force is existential: the description fails to pick out a possible barber.

Strengthened Final Position: This is an important correction to the prior compendium. The refined Haimesian lesson is not temporal disjunction but model validation: test whether the defining conditions can be jointly instantiated.

17. 'I Can't Operate on This Boy—He's My Son'

Classification	Riddle exposing a hidden social assumption
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Source in Words That Echo: The book correctly argues that the variable 'surgeon' was never defined as male and offers several possible family relations.

Standard problem: A boy's father dies in a crash. At the hospital the surgeon says, 'I can't operate—he's my son.'

Formal schema

Father(boy) = deceased
 Surgeon(s) and Parent(s, boy)
 No premise: Male(s)

Haimesian Reactael Response: The simplest solution is that the surgeon is the boy's mother. Other family structures are logically possible, but multiplying unusual possibilities can obscure the point: the riddle works by exploiting a gender stereotype. The contradiction exists only in the hearer's added premise that surgeons are men and that a child has only one father-like parent.

Comparison with established approaches: This is a cognitive-bias demonstration, not a logical paradox. It illustrates enthymematic reasoning: listeners silently add a premise that was never stated.

Strengthened Final Position: Successfully diagnosed in the book. It belongs in the compendium as a hidden-premise case, clearly labeled as a riddle rather than a solved antinomy.

18. The Ship of Theseus

Classification	Identity under change
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Source in Words That Echo: The book asks whether the definition of a ship forbids replacement of its parts, pointing toward the need for an identity criterion.

Standard problem: If every plank of a ship is replaced over time, is it still the same ship? If the discarded planks are reassembled, which ship is the original?

Formal schema

Identity candidates:
 I_material(x, y)
 I_spatiotemporal(x, y)
 I_functional(x, y)
 I_historical-causal(x, y)
 These relations need not select the same successor

Haimesian Reactael Response: There is no contradiction until 'same ship' is assigned a criterion. Ordinary identity judgments combine material, causal, functional, legal, and historical continuity. The reassembly variant creates branching: one object may inherit continuous operation while another inherits original matter. A context may privilege one relation without proving that every context must.

Comparison with established approaches: The puzzle originates in Plutarch and was sharpened by Hobbes's reassembly case. Modern personal-identity debates, including Parfit's work, treat branching as evidence that identity may not capture everything that matters.

Strengthened Final Position: Conditionally resolved. The book's definition question is exactly the right starting point, but a complete answer must state which continuity relation serves which purpose.

19. The Sorites or Heap Paradox

Classification	Vagueness
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Source in Words That Echo: The book invokes the nested-guitar idea and elsewhere supplies the haiku 'Cumulative': tiny additions can become inconceivably large in aggregate.

Standard problem: One grain is not a heap. Adding one grain cannot seem to turn a non-heap into a heap. Repeating the inference suggests that no number of grains forms a heap.

Formal schema

```
not H(1)
forall n [not H(n) -> not H(n+1)]
Therefore forall n not H(n)
The universal tolerance premise is the disputed step
```

Haimesian Reactael Response: The predicate 'heap' has borderline cases and purpose-sensitive standards. The tolerance premise is plausible locally but not valid without limit. Options include epistemicism (there is an unknowable sharp cutoff), supervaluationism (borderline claims lack a settled truth value while classical consequence is preserved), fuzzy logic (degrees of heapness), and contextualism. A Haimesian refinement combines cumulative sensitivity with purpose-relative thresholds: require the practical context to declare an admissible boundary range rather than pretend that ordinary language already supplies one exact point.

Comparison with established approaches: Fine's supervaluationism and Williamson's epistemicism are major rival accounts. No single theory has achieved consensus.

Strengthened Final Position: Not finally slain. The book contains the right diagnostic themes—definition, cumulative change, and context—but the paradox remains a live theory-choice about vagueness.

20. The 'All Horses Are the Same Color' Induction

Classification	Invalid mathematical induction
----------------	--------------------------------

Source in Words That Echo: The book responds that some assertions can simply be false, but does not locate the exact failure.

Standard problem: A fraudulent induction claims that every set of n horses has one color. The induction step compares two overlapping groups of n horses in a set of $n+1$.

Formal schema

```
Base n=1 succeeds
Induction step requires overlap between first n and last n horses
At n=1 -> n=2, the two one-horse subsets have no shared horse
```

Haimesian Reactael Response: The proof fails at the first nontrivial induction step. Without an overlapping horse, there is no bridge showing that the colors of the two subsets coincide. Once the $n=2$ case fails, the induction never begins.

Comparison with established approaches: This is a classic demonstration that checking the form of induction is not enough; the transition must hold at every required value.

Strengthened Final Position: Completely resolved by exposing the missing overlap. The general Haimesian lesson is to inspect boundary cases where a repeated rule first becomes active.

21. The Declaration-of-Independence Equality Puzzle

Classification	Equivocation between moral equality and identical status
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Source in Words That Echo: The poem 'The Declaration of a Paradox' asks how all persons can be created equal if their status changes.

Standard problem: Equal creation or equal human standing appears to conflict with unequal talents, offices, wealth, achievements, or social positions.

Formal schema

EqualStanding(x, y) does not entail
 forall property P : $P(x) = P(y)$
 Nor does it entail EqualOutcome(x, y)

Haimesian Reactael Response: The equality claim is best understood as equal basic moral status, rights, or standing before law—not numerical identity of every property or permanence of every role. Status changes can be legitimate when they are tied to office, responsibility, consent, or achievement, but cannot erase the underlying personhood that constrains treatment.

Comparison with established approaches: Political philosophy routinely distinguishes equality of status, opportunity, resources, welfare, and outcome. The paradox arises only when these are collapsed.

Strengthened Final Position: A strong example of the Haimesian equivocation method. The poem supplies a useful entry point into a serious political distinction.

22. Perfect Circles, Triangles, and Physical Measurement

Classification	Idealization puzzle
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Source in Words That Echo: The book argues that magnification will reveal imperfections in any physical drawing and therefore distinguishes theoretical shapes from physical objects.

Standard problem: Geometry proves exact properties of perfect figures, yet no measured physical figure appears perfectly exact.

Formal schema

Mathematical object C satisfies axioms exactly
 Physical token c approximates C within tolerance ϵ
 $\text{Approximation}(c, C, \epsilon) \neq \text{Identity}(c, C)$

Haimesian Reactael Response: No contradiction exists. Mathematical geometry studies ideal structures defined by axioms. Physical science uses those structures as models whose fit is assessed within measurement uncertainty. A drawn circle instantiates enough relational structure for a purpose without being identical to the mathematical circle.

Comparison with established approaches: The issue belongs to the philosophy of mathematical idealization and structural representation. It does not refute geometry; it clarifies the relation between model and material instance.

Strengthened Final Position: The book's magnifying-glass argument is philosophically useful when recast as a model-instance distinction rather than a denial that circles exist in any sense.

III. Probability, Confirmation, and Rational Belief

23. The Drinker Paradox

Classification	Valid theorem with counterintuitive material implication
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Source in Words That Echo: The book proposes unusual drinking rules to show that the subjects may not behave uniformly.

Standard problem: In any nonempty pub, there is someone such that, if that person is drinking, then everyone in the pub is drinking.

Formal schema

exists x [$D(x) \rightarrow \text{forall } y D(y)$]
 If forall $y D(y)$, choose anyone.

Otherwise choose a non-drinker x ; $D(x)$ is false, so the implication is true classically.

Haimesian Reactael Response: The statement is a theorem of classical first-order logic. It does not say one person's drinking causes everyone to drink, nor that there is a leader whose behavior controls the room. The surprise comes from reading material implication as causal or relevant implication. The book's subject-mapping intuition therefore belongs to pragmatics, not to the theorem's validity.

Comparison with established approaches: Relevant logics reject or reinterpret some conditionals that are true only because their antecedents are false. Classical logic keeps them because material implication has precise truth-functional advantages.

Strengthened Final Position: Not refuted by a counterexample. The improved Haimesian contribution is to distinguish truth-functional validity from ordinary causal meaning.

24. The Paradoxes of Material Implication and Entailment

Classification	Relevance and explosion
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Source in Words That Echo: The book objects that unrelated premises should not yield conclusions such as 'George Washington is made of rakes.'

Standard problem: Classical logic validates patterns such as a false antecedent implying any consequent and a true consequent being implied by any antecedent. From a contradiction, any proposition follows by explosion.

Formal schema

```
not P |- (P -> Q)
Q |- (P -> Q)
P, not P |- Q
```

Haimesian Reactael Response: These are not mistakes inside classical semantics; they are consequences of defining implication truth-functionally and consequence as truth preservation. But they can fail to represent explanatory, causal, or informational relevance. The Haimesian phrase 'no meaningful entailment without relevance' becomes rigorous only after a relevance relation or variable-sharing condition is added, or after contradictions are handled paraconsistently.

Comparison with established approaches: Anderson and Belnap developed relevance logic to require a connection between premise and conclusion. Priest's paraconsistent logic blocks explosion while allowing some contradictions.

Strengthened Final Position: A legitimate critique of classical implication as a model of ordinary reasoning, not a proof that classical logic is internally invalid. The contribution is strongest as a proposal for a relevance-sensitive reasoning layer.

25. The Lottery Paradox

Classification	Rational acceptance under high probability
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Source in Words That Echo: The book distinguishes properties of each ticket from properties of the complete lottery, anticipating the level-of-analysis problem.

Standard problem: In a fair 1,000-ticket lottery with one winner, each individual ticket is overwhelmingly likely to lose. Accepting of each ticket that it will lose, and conjoining those beliefs, yields the false conclusion that no ticket will win.

Formal schema

```
For each i: P(Lose_i)=0.999
Threshold rule: P(p)>.99 -> Accept(p)
Closure: Accept(p), Accept(q) -> Accept(p and q)
Together with exactly one winner, inconsistency follows
```

Haimesian Reactael Response: The set/member distinction is helpful but incomplete. The central conflict is among high-probability acceptance, deductive closure of accepted beliefs, and consistency. A disciplined system can retain

numerical probabilities instead of converting each into categorical belief, reject unrestricted conjunction of defeasible beliefs, or permit nonmonotonic acceptance that is withdrawn when combined evidence changes the context.

Comparison with established approaches: Kyburg introduced the paradox to show limits on rational acceptance and favored restrictions on aggregation. Later work connects it to nonmonotonic logic and epistemic standards.

Strengthened Final Position: Substantially strengthened. The earlier answer becomes a serious solution when expressed as a ban on transferring individually defeasible acceptance into an unrestricted collective conjunction.

26. Hempel's Raven Paradox

Classification	Confirmation theory
----------------	---------------------

Source in Words That Echo: The book calls a green apple unrelated to whether all ravens are black.

Standard problem: 'All ravens are black' is logically equivalent to 'All nonblack things are nonravens.' A green apple is a nonblack nonraven, so it appears to confirm the raven hypothesis.

Formal schema

H: $\text{forall } x [R(x) \rightarrow B(x)]$

Equivalent: $\text{forall } x [\text{not } B(x) \rightarrow \text{not } R(x)]$

Observation: $\text{not } B(a) \text{ and } \text{not } R(a)$

Haimesian Reactael Response: The observation is not strictly irrelevant under every confirmation theory. In a Bayesian model it may raise the probability of H by an extremely small amount, depending on background assumptions and sampling procedure. The Haimesian domain intuition should therefore become an evidential-weight principle: formally relevant evidence can be practically negligible when drawn from an enormous class of nonravens or from a biased sampling process.

Comparison with established approaches: Hempel used the case to test principles of confirmation. Nicod's criterion emphasizes positive raven instances; Bayesian approaches explain why a green apple's confirmation can be tiny rather than zero.

Strengthened Final Position: The previous page overstated the solution. The corrected result preserves the intuition while acknowledging logical equivalence and probabilistic relevance.

27. Catch-22: The Pilot-Sanity Rule

Classification	Institutional self-sealing rule
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Source in Words That Echo: The book argues that requesting evaluation is evidence of sanity at most, not a guarantee, and criticizes the universal 'anyone.'

Standard problem: A pilot can be excused from dangerous missions if insane, but requesting an insanity evaluation is treated as proof of rational concern and therefore sanity.

Formal schema

$\text{RequestEvaluation}(x) \rightarrow \text{Sane}(x)$

$\text{Insane}(x) \rightarrow \text{Excused}(x)$

$\text{RequestEvaluation}(x)$ is required to activate $\text{Excused}(x)$

The first rule defeats the route to the exception

Haimesian Reactael Response: The structure is not a formal contradiction; it is a rule system designed so that the qualifying condition cannot be successfully asserted. The Haimesian correction is to replace the conclusive inference with defeasible evidence: requesting help may count for or against particular diagnoses depending on context.

Independent evaluation must be allowed to override the rule.

Comparison with established approaches: The literary Catch-22 is a paradigm of bureaucratic self-sealing. In logic and law, such systems are criticized for denying a usable procedure to establish the condition that triggers relief.

Strengthened Final Position: One of the book's stronger practical analyses. The universal-to-probabilistic correction should be preserved and expanded into a general test for inaccessible exceptions.

28. The Catch-22 of Temporary Insanity

Classification	Probabilistic and legal inference
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Source in Words That Echo: A later passage argues that willingness to perform a gravely self-destructive act may indicate inability to appreciate its seriousness.

Standard problem: The proposed dilemma infers incapacity from the extremity of an act, while legal responsibility may require proof that the actor lacked a specified cognitive or volitional capacity.

Formal schema

Evidence E = extremely self-destructive act

Question: $P(\text{Incapacity} \mid E)$

Invalid leap: $E \rightarrow \text{Incapacity with certainty}$

Haimesian Reactael Response: Extreme conduct can be evidence of crisis, coercion, delusion, intoxication, or impaired judgment, but it does not logically entail legal insanity. The proper form is probabilistic and jurisdiction-specific. Competing explanations, prior behavior, awareness, planning, and ability to understand wrongfulness matter.

Comparison with established approaches: Legal insanity tests are normative and institutional, not direct translations of psychiatric diagnosis. The book's broader point—limited evidence should not be upgraded into certainty—is sound.

Strengthened Final Position: Useful as an epistemic warning, not a complete legal doctrine. This section is presented as philosophy of inference and not legal advice.

29. The Wheel-of-Fortune and Lottery Decision Dilemmas

Classification	Expected utility and strategic choice
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Source in Words That Echo: The book asks whether other contestants should effectively concede after someone lands on a very large prize and separately notes that each lottery ticket is more likely to lose than win.

Standard problem: A low-probability or high-variance opportunity can be rational or irrational depending on cost, utility, rules, and alternative actions—not probability alone.

Formal schema

$\text{ExpectedUtility}(\text{action}) = \sum_i P(\text{outcome}_i \mid \text{action}) * U(\text{outcome}_i)$

Choose action a only after including cost, opportunity, risk tolerance, and strategic effects

Haimesian Reactael Response: The claim that every ticket should be treated as a loser is appropriate for prediction but does not by itself determine whether purchase is rational. A small chance can have entertainment value or unusually high utility, though repeated negative expected value remains costly. Likewise, conceding a game after an opponent's windfall may violate rules or ignore one's remaining expected payoff.

Comparison with established approaches: Decision theory separates belief from action through utility. The lottery paradox concerns categorical belief; lottery choice concerns expected value and preference.

Strengthened Final Position: Not a logical paradox but a valuable application. The refined lesson is to avoid substituting a single probability statement for a full decision model.

IV. Norms, Commands, and Self-Referential Agreements

30. Ross's Paradox

Classification	Deontic logic and pragmatic relevance
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Source in Words That Echo: The book suggests that imperatives are not ordinary true-or-false statements and therefore should not generate contradiction in the same way.

Standard problem: From 'You ought to mail the letter,' standard deontic logic permits 'You ought to mail the letter or burn it,' because p entails p or q .

Formal schema

$O(p)$

Classical weakening: $p \vdash (p \text{ or } q)$

Normal modal rule yields: $O(p) \rightarrow O(p \text{ or } q)$

Haimesian Reactael Response: The inference preserves satisfaction conditions but can corrupt directive force. A person who burns the letter satisfies the disjunction but violates the original purpose. The book's distinction between imperatives and truth-apt propositions is relevant, but deontic propositions can still be evaluated logically. A better solution represents norms as inputs with goals, permissions, priorities, and relevance constraints rather than treating obligation as an ordinary modal operator over truth conditions alone.

Comparison with established approaches: Ross identified the problem in work on imperatives and logic. Later deontic and input/output logics distinguish norms from descriptive propositions and restrict weakening.

Strengthened Final Position: The original intuition is promising but incomplete. The polished Haimesian principle is: preserve the action-guiding purpose of a norm, not merely the truth of a weakened disjunction.

31. The Paradox of the Court (Protagoras and Euathlus)

Classification	Contract, priority, and temporal obligation
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Source in Words That Echo: The book asks which authority has dominion over the student's finances and notes that a court can override or interpret the private agreement.

Standard problem: A student agrees to pay tuition after winning the first court case. The teacher sues before the student has won any case. Each side argues that either the contract or the court's result guarantees victory.

Formal schema

Contract norm C: $\text{FirstWin}(\text{student}) \rightarrow O(\text{Pay})$

Court order J may independently create $O(\text{Pay})$ or not $O(\text{Pay})$

Priority and timing between C and J must be specified

Haimesian Reactael Response: The reasoning equivocates between what follows from the contract and what follows from the court's judgment. If the student wins this case, the contractual condition may activate afterward. If the student loses, a court order may require payment, but that depends on the legal claim actually adjudicated. Appeals, timing, and interpretation matter. There is no single contradiction once the normative sources and temporal sequence are separated.

Comparison with established approaches: The ancient puzzle is a classic example of conflicting arguments from distinct rule systems. Modern legal logic uses priority rules and temporalized obligations.

Strengthened Final Position: The book's authority distinction is directionally correct. The final version makes it precise through norm-source and time indexing.

32. The Crocodile Dilemma

Classification	Self-referential promise and prediction
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Source in Words That Echo: The book notices that the crocodile can evade the father's statement only by changing what 'returned' or 'alive and well' means, and therefore exposes semantic instability.

Standard problem: A crocodile promises to return a child if and only if the father correctly predicts whether the child will be returned. The father predicts that the child will not be returned.

Formal schema

Promise: $\text{Return} \leftrightarrow \text{CorrectPrediction}$

Prediction: not Return

$\text{CorrectPrediction} \leftrightarrow \text{not Return}$

Substitution creates Return $\leftrightarrow$ not Return

Haimesian Reactael Response: Once the proposition and meanings are frozen, the promise has no satisfiable outcome: returning makes the prediction false and violates the stated rule; not returning makes the prediction true and also violates the rule. Redefining 'returned' after the prediction is not a solution but a breach of semantic good faith. The correct conclusion is that the crocodile made an impossible self-referential contract.

Comparison with established approaches: The structure resembles liar-like feedback and contracts whose compliance condition depends on predicting their own compliance.

Strengthened Final Position: A strong place to preserve the book's insistence on fixed definitions. The resolution is to reject the promise as incoherent, not to search for a clever mutilated or delayed sense of return.

33. The Rule Against Rule-Changing Wishes

Classification	Authority hierarchy
----------------	---------------------

Source in Words That Echo: Derived from the three-wishes discussion and the book's repeated concern with containers, rules, and what falls within them.

Standard problem: Can a rule-governed act alter the rule that authorizes the act?

Formal schema

AuthorityLevel(R_0) authorizes acts A_1

An act a in A_1 may modify R_0 only if AmendmentPermission(R_0, a)

Haimesian Reactael Response: This general form unifies the genie, Opposite Day, constitutional amendment, software permissions, and self-modifying commands. A lower-level act cannot acquire higher-level authority merely by describing itself as an amendment. The constituting rule must specify an amendment path, or the attempted change is invalid.

Comparison with established approaches: Legal positivism, constitutional theory, and computer security all rely on authorization hierarchies. The logical lesson is analogous to type discipline.

Strengthened Final Position: A defensible extension of the source material and one of the most useful practical generalizations in the compendium.

V. Time, Motion, Causation, and Mathematical Surprise

34. The Grandfather Paradox

Classification	Time travel and causal consistency
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Source in Words That Echo: The book proposes that backward travel creates a different timeline and separately suggests that no traveler can go earlier than the first time-travel event.

Standard problem: A traveler goes into the past and prevents the traveler's own existence, apparently removing the cause of the journey that produced the prevention.

Formal schema

Origin branch 0: Birth(t) and Travel(t)

Branching model: intervention creates branch B where not Birth_B(t)

Travel event remains caused by history in 0

Haimesian Reactael Response: Branching causality is a coherent conditional solution: the traveler's origin is preserved in one history while the intervention alters another. It is not the only solution. In a single consistent timeline, the traveler may attempt but cannot succeed in creating a contradiction; the past already includes the attempt. Self-consistency constraints and branching-world accounts represent different metaphysics. The proposed limit on travel before the first machine is an additional physical rule, not logically required by the paradox.

Comparison with established approaches: David Lewis argued that time travel can be coherent when personal time and external time are distinguished and contradictions are impossible, though unusual events occur. Branching accounts avoid alteration of the origin history.

Strengthened Final Position: Conditionally resolved by branching causality, with the model clearly labeled rather than presented as the uniquely necessary structure of time.

35. The Unexpected Hanging or Surprise Examination

Classification	Epistemic self-reference
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Source in Words That Echo: The book emphasizes incomplete knowledge, memory failure, and the possibility that a person can still be surprised.

Standard problem: A prisoner is told that a hanging will occur on a weekday and will be a surprise. Backward reasoning appears to eliminate every day, yet the hanging can still surprise the prisoner.

Formal schema

Announcement A includes event date d and condition $\text{not } K_{\{d-1\}}(d)$

The prisoner's elimination changes the epistemic state on which A itself depends

Haimesian Reactael Response: Memory loss is possible but not central. The deeper issue is dynamic: the announcement talks about what can be known at a future stage, while the prisoner's reasoning uses the announcement to alter that knowledge. Backward induction may assume that if only one day remains, the prisoner will know the hanging occurs then—but this depends on retaining confidence in an announcement that the induction has supposedly shown impossible. The epistemic condition and the deduction interact.

Comparison with established approaches: Quine rejected a key step in the backward reasoning; later work models the puzzle with epistemic and dynamic logics. There is no universally accepted single diagnosis.

Strengthened Final Position: Improved from a general appeal to uncertainty into a time-indexed knowledge analysis. The paradox remains theoretically rich rather than completely closed.

36. Achilles and the Tortoise

Classification	Zeno paradox and infinite series
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Source in Words That Echo: The book focuses on ever-smaller measurements and the difficulty of proving an exact tie in physical observation.

Standard problem: Achilles must first reach the tortoise's starting point, but by then the tortoise has advanced. Repeating this creates infinitely many sub-tasks, apparently preventing overtaking.

Formal schema

$\text{Time} = d/v_A + dr/v_A + dr^2/v_A + \dots$

For $0 < r < 1$:

$\text{Sum} = (d/v_A)/(1-r)$, which is finite

Haimesian Reactael Response: An infinite number of decreasing intervals need not require infinite time. The geometric series converges. Measurement limits do not determine the mathematical result; they affect our empirical precision in identifying the exact overtaking moment. The conceptual mistake is treating 'infinitely many describable subdivisions' as 'an infinite total duration.'

Comparison with established approaches: Aristotle distinguished potential from completed infinity; modern analysis supplies the limit theory that calculates the finite sum.

Strengthened Final Position: Mathematically resolved under standard continuum mathematics. The book's measurement concerns are better placed in the separate idealization chapter.

37. The Ant on an Expanding Rubber Rope

Classification	Mathematical puzzle
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Source in Words That Echo: The book doubts that the ant can succeed and proposes extraordinary physical mechanisms, showing how counterintuitive the result appears.

Standard problem: An ant crawls along a rope that continuously stretches. In the classic version the rope length grows linearly while the ant moves at a constant speed relative to the rope.

Formal schema

Fractional progress rate = $v / L(t)$

If $L(t) = L_0 + kt$, then $\int_0^T v/L(t) dt = (v/k) \ln((L_0 + kT)/L_0)$

The integral grows without bound, so it eventually reaches 1

Haimesian Reactael Response: The ant eventually reaches the end in the idealized linear-growth model, although the required time can be enormous. Each stretch carries the ant forward proportionally, and the accumulated fractional progress diverges logarithmically. Different growth laws can change the answer: exponential stretching may prevent arrival.

Comparison with established approaches: The puzzle demonstrates why intuitive comparisons of absolute speed can mislead when the relevant quantity is fractional progress.

Strengthened Final Position: The original answer is corrected. The Haimesian lesson becomes: identify the invariant or normalized quantity before judging a dynamic process impossible.

38. The Present Moment and Temporal Indexing

Classification	Indexical time puzzle
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Source in Words That Echo: The haiku 'Present' describes the present as a future moment not yet made, while another version says the present is a very small future moment already passed.

Standard problem: The present seems real, yet any attempt to isolate it finds a boundary between a no-longer-existing past and a not-yet-existing future.

Formal schema

Truth of 'event e is present' depends on evaluation time t:

$\text{Present}_t(e) \text{ iff } \text{Time}(e) = t$

Changing t changes the proposition's index, not its logical consistency

Haimesian Reactael Response: Temporal indexicals behave like 'here' and 'I.' The sentence 'the event is present' is incomplete without an evaluation time. There is no contradiction in an event being future at t_1 , present at t_2 , and past at t_3 . Metaphysical debates about presentism, eternalism, and passage remain, but ordinary tense contradictions dissolve through indexing.

Comparison with established approaches: Tense logic formalizes temporal operators rather than treating tensed sentences as timeless propositions.

Strengthened Final Position: A new contribution mined from the haiku section. It extends the book's early temporal intuition into a precise indexical rule.

VI. External Stress Tests Beyond Words That Echo

These cases were not presented as full paradox analyses in Words That Echo. They are included to test whether Michael's Maxim survives contact with famous problems that challenge self-reference, rational belief, knowledge, inquiry, analysis, choice, emotion, political tolerance, statistics, and set-theoretic geometry. The analyses are provisional applications of the Haimesian method, not claims that Michael Haimes historically originated the standard solutions.

39. Yablo's Paradox

Source relation: The source book often treats self-reference and changing levels as the main engines of paradox. Stephen Yablo's sequence is therefore a direct stress test because it was designed to generate liar-like contradiction without any sentence explicitly referring to itself.

Standard problem: For each natural number n , sentence S_n says that every later sentence S_k , for $k > n$, is false. Assuming any S_n true makes S_{n+1} false and then true; assuming all false makes each one true.

Formal schema

```
S_n <-> forall k>n: not T(S_k)
Assume T(S_n) -> not T(S_{n+1}) and forall k>n+1 not T(S_k)
Then the content of S_{n+1} holds -> T(S_{n+1})
Assume all S_n false -> each S_n has only false successors -> each S_n true
```

Haimesian stress test: A rule that only bans direct self-application is insufficient. The fixed-frame method must therefore test dependency graphs, infinite descending reference, and global semantic constraints. The relevant defect is not necessarily a sentence pointing to itself but an ungrounded network whose truth assignments have no stable model.

Comparison with established approaches: Yablo's 1993 paper argues that self-reference is neither necessary nor sufficient for liar-like paradox. Kripkean groundedness and graph-theoretic dependency analyses can be extended to such infinite sequences, though whether the construction is indirectly circular remains debated.

Strengthened Final Position: The maxim survives only in a strengthened form: inspect semantic dependency and model existence, not merely direct self-reference. This is a major correction to any simple 'guitar inside a guitar' explanation.

40. The Preface Paradox

Source relation: The book's Lottery Paradox analysis distinguishes individually reasonable judgments from an inconsistent total set. David Makinson's Preface Paradox applies the same pressure to an author's carefully checked beliefs.

Standard problem: An author rationally believes each assertion in a long book, yet also rationally believes that at least one assertion is mistaken. The total belief set is inconsistent even though each component belief appears justified.

Formal schema

```
Believes(a, p_1), ..., Believes(a, p_n)
Believes(a, not(p_1 and ... and p_n))
Closure under conjunction would yield Believes(a, p_1 and ... and p_n)
```

Haimesian stress test: The paradox reveals that rational acceptance is defeasible and not automatically closed under conjunction. The Haimesian set/member distinction helps, but the decisive formal point is that the warrant for each claim need not license categorical confidence in their conjunction.

Comparison with established approaches: Makinson introduced the paradox in 1965. It is often paired with the Lottery Paradox in work on rational acceptance, epistemic closure, and fallible belief.

Strengthened Final Position: Resolved as a conflict among individually warranted belief, conjunction closure, and acknowledged fallibility. The Haimesian method must explicitly distinguish probability-bearing acceptance from deductively closed knowledge.

41. Moore's Paradox

Source relation: Words That Echo repeatedly separates what is true from what a speaker can coherently assert, especially in passages about knowing, lying, and private belief. Moore's Paradox makes that distinction explicit.

Standard problem: A sentence such as 'It is raining, but I do not believe that it is raining' can be true and logically consistent, yet sounds absurd when asserted sincerely in the first person and present tense.

Formal schema

p and not B_{me}(p)
 Logical satisfiability: possible
 Sincere assertion of p normally expresses B_{me}(p)
 Pragmatic clash: Assert_{me}(p) and avow not B_{me}(p)

Haimesian stress test: There is no truth-functional contradiction. The instability lies between the asserted content and the commitment conventionally expressed by asserting it. The fixed frame must therefore include speech act, person, tense, and sincerity conditions, not just sentence truth.

Comparison with established approaches: G. E. Moore identified the phenomenon, and Wittgenstein treated it as a central clue about belief and assertion. Later epistemic and doxastic logics distinguish the proposition asserted from the act's normative commitments.

Strengthened Final Position: A pragmatic paradox, not a true contradiction. It strengthens the Haimesian taxonomy by showing that some apparent paradoxes arise from the norms of assertion rather than defective truth conditions.

42. Fitch's Paradox of Knowability

Source relation: The source contains claims about knowledge, ignorance, and the limits of proof. Fitch's result tests whether 'every truth is knowable' can be accepted without collapsing knowability into actual knowledge.

Standard problem: From the thesis that every truth is possibly known, a standard modal-epistemic derivation appears to show that every truth is already known.

Formal schema

Knowability thesis: $p \rightarrow \Diamond Kp$
 Let $q := p \text{ and not } Kp$
 If q is true, $\Diamond Kq$
 But $K(p \text{ and not } Kp) \rightarrow Kp \text{ and } K \text{ not } Kp \rightarrow Kp \text{ and not } Kp$
 Therefore not $\Diamond Kq$; so no unknown truth q exists

Haimesian stress test: The contradiction is generated by unrestricted substitution of a self-effacing proposition into the knowability principle. Once 'p and p is not known' becomes known, it ceases to be true. A Haimesian repair must index knowledge and truth by time or weaken the universal knowability thesis so it does not quantify over propositions whose truth depends on remaining unknown.

Comparison with established approaches: Frederic Fitch published the result in 1963. Responses restrict knowability, alter temporal interpretation, type the epistemic operators, or reject assumptions about knowledge distributing over conjunction.

Strengthened Final Position: The universal knowability thesis is not stable under unrestricted self-application. The fixed-frame method gives a useful diagnosis, but no single repair is philosophically compulsory.

43. The Knower Paradox

Source relation: The source's semantic diagnoses focus heavily on truth predicates. The Knower family shows that analogous inconsistency arises when a language can refer unrestrictedly to what is known or provable.

Standard problem: Construct a sentence K that says, in effect, ' K is not known.' Under plausible principles that knowledge implies truth and that certain theorems are known, contradiction follows.

Formal schema

```
K <-> not Knows(<K>)
Veracity: Knows(<phi>) -> phi
Reflection/necessitation principles connect theoremhood and knowledge
The self-referential fixed point destabilizes the system
```

Haimesian stress test: The lesson is classifier-class separation generalized from truth to epistemic predicates. A knowledge predicate that ranges over all sentences of its own language requires restrictions, levels, or a more careful account of reflection. Merely asserting that the sentence is unknown does not solve the formal fixed point.

Comparison with established approaches: Richard Montague and David Kaplan developed influential knower constructions. Contemporary work explores typed and untyped systems, often using truth predicates, provability logic, or restricted reflection.

Strengthened Final Position: A decisive expansion of the method: any total semantic or epistemic classifier capable of encoding its own applications must undergo a fixed-point audit.

44. Meno's Paradox of Inquiry

Source relation: The book's poems repeatedly suggest that learning reveals what was not known and that a path can precede a fully stated destination. Plato's Meno asks whether inquiry can begin at all under those conditions.

Standard problem: If one knows what one seeks, inquiry seems unnecessary; if one does not know what one seeks, one cannot recognize the answer when found.

Formal schema

```
Know(x) -> inquiry unnecessary
not Know(x) -> recognition of x allegedly impossible
But partial specification and recognition criteria can exist without complete knowledge
```

Haimesian stress test: The dilemma equivocates between complete knowledge and partial characterization. Inquiry can begin from a question, anomaly, exemplar, constraint, or ability to recognize improvement without possessing the final answer. The target can be intensionally specified while its correct extension remains unknown.

Comparison with established approaches: Plato answers through recollection in the Meno. Modern responses emphasize partial knowledge, erotetic logic, problem spaces, and fallibilist inquiry.

Strengthened Final Position: Resolved as a false dichotomy between total knowledge and total ignorance. This strongly supports the poem-derived Haimesian view that the path toward a solution may itself supply the criteria of recognition.

45. The Paradox of Analysis

Source relation: Words That Echo repeatedly asks whether naming or defining a thing adds knowledge or merely repeats it. The Langford-Moore paradox formalizes that concern.

Standard problem: A correct conceptual analysis must have the same meaning as the concept analyzed, but if both sides mean exactly the same thing, the analysis seems uninformative. If the analysis is informative, it appears not to be identical in meaning.

Formal schema

```
CorrectAnalysis(A, B) -> SameMeaning(A, B)
```

SameMeaning(A,B) -> alleged noninformativeness

Informative(A=B) -> cognitive difference between A and B

Haimesian stress test: The paradox confuses semantic equivalence with cognitive presentation. Two expressions can be coextensive or analytically connected while organizing understanding differently. A definition can expose structure, inferential role, necessary conditions, or a route of recognition not transparent in the unanalyzed term.

Comparison with established approaches: G. E. Moore raised the issue, and C. H. Langford named it in 1942. Frege's distinction between reference and mode of presentation and later theories of concepts offer related resources.

Strengthened Final Position: The Haimesian Definition-Repair Principle is relevant, but the repair must distinguish meaning, reference, inferential role, and cognitive value rather than saying only that words have different definitions.

46. Newcomb's Problem

Source relation: The source includes lottery and game-show dilemmas and repeatedly emphasizes that a decision rule can change when the relevant frame changes. Newcomb's problem tests that claim in decision theory.

Standard problem: A highly reliable predictor has already filled an opaque box based on a prediction of whether the agent will take one box or two. Expected-utility reasoning favors one box; dominance reasoning favors taking both.

Formal schema

One-box: correlated with prediction of one-box and large reward

Two-box: in each fixed box-content state, adds the transparent reward

Conflict: evidential expected utility vs causal/dominance reasoning

Haimesian stress test: The two recommendations answer different counterfactual questions. One conditions on evidence about the predictor's accuracy; the other intervenes on the present act while holding prior box contents fixed. A fixed-frame analysis must specify the causal graph, decision theory, and counterfactual semantics before comparing recommendations.

Comparison with established approaches: Robert Nozick's classic treatment isolated the conflict between expected utility and dominance. Later causal, evidential, and functional decision theories disagree because they formalize dependence differently.

Strengthened Final Position: Not a single contradiction but a clash of decision frameworks. The Haimesian contribution is the demand that the dependency model be fixed before rationality is judged.

47. The Paradox of Fiction

Source relation: The source begins with the saying 'Without a play, there can be no monsters' and uses fictional and dream imagery throughout. This creates a direct connection to the philosophical problem of emotional response to fiction.

Standard problem: People know that fictional characters do not exist, yet they feel genuine fear, grief, admiration, or concern for them. How can an emotion be rational if its apparent object is knowingly unreal?

Formal schema

not Exists(real-world, character c)

EmotionToward(agent,c)

No contradiction if emotion targets represented scenario, possibility, value, or imaginative content

Haimesian stress test: The object of emotion need not be a real individual standing before the agent. Emotion can respond to represented possibilities, patterns of value, imagined situations, or the experience produced by a work. The source's monster line can be formalized as dependence of the emotional object on a representational frame rather than literal existence.

Comparison with established approaches: Colin Radford famously argued that our responses appear irrational; later theories appeal to make-believe, thought theory, simulation, or quasi-emotions.

Strengthened Final Position: Resolved at the level of logical compatibility: knowing a character is fictional can coexist with genuine emotion toward represented content. The correct theory of fictional emotion remains debated.

48. The Paradox of Tolerance

Source relation: The poems about judgment, mercy, domination, and rules repeatedly ask when a principle must limit its own application to preserve its purpose. Popper's paradox is therefore a natural political stress test.

Standard problem: Unlimited tolerance of movements committed to eliminating tolerance may allow those movements to destroy the tolerant order itself.

Formal schema

Goal G: preserve a tolerant order

Rule R: tolerate every practice without limit

If some practice x destroys G , universal application of R defeats the purpose of R

Haimesian stress test: The problem is not formal contradiction unless tolerance is defined as unconditional permission. A purpose-sensitive rule includes thresholds: speech, persuasion, and peaceful disagreement receive broad protection; coercion and systematic destruction of others' equal standing can trigger defensive limits. The central danger is vague or self-serving classification of opponents as intolerant.

Comparison with established approaches: Karl Popper formulated the paradox in *The Open Society and Its Enemies*. Liberal theory continues to debate militant democracy, free speech, and proportionate self-defense.

Strengthened Final Position: A rule-design dilemma resolved only conditionally. The Haimesian Rule-Against-Rule-Changing-Wishes generalizes here: a system need not authorize acts that abolish the conditions under which authorization is meaningful.

49. Simpson's Paradox

Source relation: The source frequently warns against transferring properties between a whole and its members. Simpson's Paradox is a rigorous statistical case in which aggregated and subgroup associations reverse.

Standard problem: A trend appears in several separate groups but reverses or disappears when the data are combined, usually because a lurking variable changes the group weights.

Formal schema

For each stratum z : $P(Y|X, z) > P(Y|\text{not } X, z)$

After aggregation: $P(Y|X) < P(Y|\text{not } X)$

Different weighting by $P(z|X)$ and $P(z|\text{not } X)$ permits reversal

Haimesian stress test: Neither level is automatically the 'real' answer. The causal question determines whether to condition on the grouping variable. The Haimesian set/member distinction must therefore be supplemented by causal structure: aggregation can conceal confounding, while stratification can also condition on a mediator or collider.

Comparison with established approaches: E. H. Simpson analyzed interaction in contingency tables in 1951. Modern causal inference explains why choosing the correct adjustment set cannot be decided by arithmetic alone.

Strengthened Final Position: A veridical statistical phenomenon, not an inconsistency. It strongly bolsters the method's insistence on domain, level, and hidden-variable discipline while correcting any simplistic rule always to prefer either the whole or the parts.

50. The Banach-Tarski Paradox

Source relation: The source distinguishes perfect mathematical objects from physically measurable ones. Banach-Tarski is an ideal final stress test because the theorem is mathematically valid yet impossible to perform with ordinary material pieces.

Standard problem: Using the axiom of choice, a solid ball can be partitioned into finitely many nonmeasurable point sets and reassembled by rigid motions into two balls congruent to the original.

Formal schema

```

Assume suitable set theory including Choice
Construct nonmeasurable orbit representatives under rotations
Finite equidecomposition yields  $B \sim B \cup B$ 
No conservation-of-volume contradiction because pieces lack Lebesgue measure

```

Haimesian stress test: The apparent contradiction imports physical assumptions-volume, cuttable matter, finite information, and measurable pieces-into a set-theoretic theorem that denies those assumptions. The fixed-frame method succeeds by separating mathematical existence from physically realizable decomposition.

Comparison with established approaches: Stefan Banach and Alfred Tarski published the result in 1924, building on work associated with Vitali and Hausdorff. It is a theorem about nonmeasurable sets and group actions, not evidence that physical matter can be duplicated by ordinary cutting.

Strengthened Final Position: A veridical paradox: surprising but consistent relative to its axioms. This case is crucial because Michael's Maxim should not mean that every item called a paradox is false; some are true theorems whose apparent impossibility disappears after the model is understood.

VII. Michael's Maxim Formalized

1. Fixed-Frame Principle

A contradiction is probative only if the same proposition and its negation are derived under one fixed language, semantics, inference system, and index.

```

Contradiction(Gamma,phi,F) := Derive_F(Gamma,phi) and Derive_F(Gamma,not phi)
A frame shift  $F \rightarrow F'$  blocks the inference that one proposition is both true and false.

```

2. Definition-Repair Principle

When a predicate appears both to apply and not apply, first test whether the predicate changed sense, domain, level, or temporal index.

```

SameTerm(x) is insufficient. Require SameMeaning(x), SameDomain(x), SameIndex(x).

```

3. Classifier-Class Separation

A rule that constructs or evaluates a class is not automatically a member of the class it governs.

```

Level(Classifier) > Level(ClassifiedObjects), unless a safe self-application rule is explicitly given.

```

4. Quantifier Modesty

Evidence about many, most, or a salient subset does not justify an unrestricted universal claim.

```

 $P(A|E)$  high  $\neq \forall x A(x)$ 
Defeasible( $E \rightarrow A$ )  $\neq$  Necessary( $E \rightarrow A$ )

```

5. Model-Satisfiability Test

Some descriptions fail because no object can satisfy them, not because reality contains a contradiction.

```

If not exists M such that M satisfies Conditions(C), reject the description rather than infer dialetheia.

```

6. Relevance Layer

Classical truth preservation and meaningful inference are different standards. Practical reasoning may require relevance in addition to validity.

`MeaningfulEntailment(P,Q) := ClassicalConsequence(P,Q) and Relevant(P,Q)`

7. Closure Humility

Dissolving a contradiction does not complete the empirical, mathematical, legal, or theological theory surrounding it.

`ConceptualResolution != EmpiricalConfirmation != Consensus != Finality`

Formal Frame Calculus

A reasoning frame is represented as $F = \langle L, S, R, I, D, A \rangle$, where L is the language, S the semantics, R the inference rules, I the index tuple (time, world, speaker, agent, evidence state), D the domain, and A the admissible assumptions. A genuine same-frame contradiction requires both derivations inside one fixed F.

`ContradictionAt(F, phi) := Derives(F, phi) and Derives(F, not phi)`

`CrossFrameClash(phi) := exists F1,F2 [F1 != F2 and Derives(F1,phi) and Derives(F2,not phi)]`

`CrossFrameClash(phi)` does not entail `ContradictionAt(F,phi)` for any single F.

Repair operators:

TYPE: restrict classifier predicates to lower-level objects

INDEX: replace phi with phi@(time,world,agent,evidence)

SCOPE: make quantifier domain D explicit

GROUND: require a well-founded semantic dependency graph

RELEVANCE: require a defensible informational link for explanatory inference

DEFEASIBLE: block unrestricted conjunction of merely probable acceptances

NORM: preserve source, priority, purpose, and amendment authority

MODEL: test whether the full premise set has a satisfying interpretation

Illustrative logic-programming sketch

`apparent_contradiction(F,P) :- derives(F,P), derives(F,neg(P)).`

`cross_frame_only(P) :- derives(F1,P), derives(F2,neg(P)), F1 != F2.`

`repair(P,type) :- self_applies(P,Classifier), unrestricted_domain(Classifier).`

`repair(P,index) :- changes_time(P); changes_world(P); changes_speaker(P).`

`repair(P,scope) :- hidden_quantifier(P); shifts_domain(P).`

`repair(P,grounding) :- cyclic_dependency(P); infinite_ungrounded_chain(P).`

`open_problem(P) :- no_repair_succeeds(P), rival_logics_disagree(P).`

These lines are a specification sketch, not machine-verified code. A future formal project should define the syntax and semantics of Frame, prove properties of each repair operator, and test whether the system is sound, nontrivial, and appropriately incomplete.

VIII. Philosophical Principles Recovered from Poems and Haiku

Poetry can reveal a distinction, hypothesis, or conceptual tension, but poetic force is not deductive proof. The selections below are included because they sharpen the compendium's method or extend it into ethics, epistemology, identity, and practical judgment.

1. Paradox

If you've described a guitar / That has no guitar in it / And yet it does / Then your definition / Probably needs updating.

Recovered principle: Definition-Repair Principle.

Before accepting contradiction, test whether the definition fixes one object, level, time, and property throughout. This is the clearest poetic statement of Michael's Maxim in the book.

2. This Thing Does This Thing

We use a clock just to see the time of day ... Wonderment naturally starts to fade / When you already have a tool for everything made.

Recovered principle: Function-Constitution Distinction.

A thing's ordinary use does not exhaust its constitution, history, or possible significance. In paradox analysis, do not identify an object with the single function for which it is normally used.

3. Holding a Grudge

Forgive the lack of perfection in the world / It already has forgiven you.

Recovered principle: Explanation-Mercy Corollary.

Causal explanation can support mercy without erasing agency. The refined position rejects the poem's strongest fatalistic wording while preserving its challenge to absolute blame.

4. Have Mercy on Yourself

They didn't know / They couldn't know / They wouldn't have acted so foolish.

Recovered principle: Epistemic-Capacity Principle.

Responsibility should be graded by what an agent could understand, control, and foresee. This supports the compendium's critique of universal inferences in Catch-22 cases.

5. The Journey Is the Destination

Maybe things didn't work out / But you worked hard and stuck it out / Though the journey was worth it.

Recovered principle: Process-Value Principle.

An outcome's failure does not entail that every stage lacked value. This blocks all-or-nothing evaluations and helps separate local defeat from global meaning.

6. The Judgment That We Shouldn't Judge

But we would not survive / If we stopped passing judgments.

Recovered principle: Necessary-Assessment Distinction.

Prohibitions on condemnation cannot coherently prohibit every form of evaluation required for action, safety, and justice.

7. Support

I have nerves that connect my brain to my body / But I can't move another person / Even though they look just like me.

Recovered principle: Embodied Agency Boundary.

Similarity does not collapse token identity or control. A person's causal control is indexed to an embodied system, supporting distinctions used in personal identity and responsibility.

8. The Power of a Secret

A secret kept can cause its owner some trouble ... We are all still accountable / Even if we make everything aware.

Recovered principle: Knowledge-Responsibility Distinction.

Knowledge, concealment, and responsibility are related but not identical. Disclosure can alter evidence and trust without retroactively changing what an agent knew when acting.

9. Myths Are So Dangerous That They Swallow Whole Lives

When everyone agrees without tangible proof / It is like living within a big home with no roof.

Recovered principle: Salience-and-Myth Warning.

A vivid event can be mistaken for a cause. Agreement and narrative coherence do not substitute for evidence, an insight relevant to confirmation paradoxes.

10. Ignorance Makes Laughable Fellows of Us All

You don't know everyone else as much as you / So there is nothing you could compare you to.

Recovered principle: Comparative-Evidence Limit.

Self-ranking is underdetermined when the comparison class is poorly known. The principle generalizes to claims of uniqueness, greatness, and worstness.

11. Openness Is Soul Crushing

If it's better to be closer then I should share the pain / But if it's not then I will not tell who's to blame.

Recovered principle: Contextual Disclosure Dilemma.

Truth-telling duties depend on relationship, risk, purpose, and timing. Binary rules such as 'always disclose' or 'never disclose' can conceal the actual conflict.

12. The Penalty of All-or-Nothing Thinking

I might as well have done nothing at all.

Recovered principle: False-Dichotomy Warning.

Partial failure is not equivalent to total failure. This poem supplies a practical version of the central Haimesian method: search for intermediate states before accepting a forced binary.

13. Solvable

It is solvable / Whether one is predictive / Or one is random.

Recovered principle: Methodological Persistence.

Determinism and randomness do not exhaust the methods available for understanding a problem. The haiku is best treated as a research commitment, not proof that every problem has already been solved.

14. Void

If there is no gap / Then a change cannot take place / Between one and two.

Recovered principle: Transition-Requires-Distinction.

Change requires distinguishable states or relations. This supports analyses in which apparent creation from absolute nothing covertly introduces a state-space, law, or difference.

15. Cold

Ever wonder why / We know that it isn't warm / It's since we know warmth.

Recovered principle: Contrast-Dependence Principle.

Many concepts are identified through contrasts. A contradiction may arise when opposite terms are treated as independently absolute rather than relationally defined.

16. Present

There's not a present / It is part of the future / It's just not made yet.

Recovered principle: Temporal-Index Principle.

Tensed descriptions change truth value with their time index. The poem supports the formal temporal chapter without proving a particular metaphysics of time.

17. Scope

You might be quite smart / There is an entity who / Can memorize earth.

Recovered principle: Bounded-Scope Principle.

A reasoner's competence is domain-limited. Universal conclusions require evidence beyond local expertise, a direct reinforcement of the book's criticism of overbroad quantifiers.

18. Facts

In order to know / You'll need to discover it / Or trust someone else.

Recovered principle: Direct-or-Testimonial Warrant.

Knowledge can be grounded in direct inquiry or responsibly transmitted testimony. The alternatives are not equal in every context, but neither can be excluded from epistemology.

19. Terms

Sounds which are pleasant / I guess it'd be called music / Terms only describe.

Recovered principle: Term-Object Distinction.

Names and classifications describe patterns; they do not create or exhaust the objects described. This is a poetic use/mention principle.

20. Simulation

One would make you full / And the other makes you feel / Can't know the difference.

Recovered principle: Underdetermination Principle.

Indistinguishable experiences do not prove identical underlying causes. Competing models require discriminating evidence rather than confidence based solely on appearance.

21. Instances

Easy to dismiss / We could commit heinous acts / In the circumstance.

Recovered principle: Role-Reversal and Context.

Moral judgment should test how the evaluator would reason under the relevant pressures, while avoiding the opposite mistake of excusing every act because circumstances matter.

22. Healing

Discover what's wrong / Or you may just treat symptoms / To your detriment.

Recovered principle: Root-Cause Diagnostic.

A paradox resolution should identify the rule, premise, or semantic mechanism generating the conflict, not merely silence the visible contradiction.

23. Cumulative

Some things can add up / That are inconceivable / In such small amounts.

Recovered principle: Aggregation Principle.

Tiny changes can produce large totals. This directly strengthens the Sorites discussion and warns against assuming local tolerance can be iterated without limit.

24. Unique

You are quite special / It is a known fact of things / There is one of you.

Recovered principle: Type-Token Individuation.

Qualitative similarity does not erase numerical distinctness. The haiku supports the distinction between a pattern and a particular token.

25. Wisdom

Wisdom is defined / By using knowledge that's learned / Not just what you know.

Recovered principle: Knowledge-Application Distinction.

Possessing propositions is not equivalent to reasoning well with them. A paradox compendium must show inferential use, not only state conclusions.

26. Relativity

The hard times seem long / The joyful times seem shorter / It is relative.

Recovered principle: Phenomenal-vs-Physical Time.

Experienced duration varies with attention and emotion without implying that physical clocks contradict one another.

27. Whole

If one has learned it / There is nothing more to say / It is completed.

Recovered principle: Closure-Criterion Warning.

A declaration of completion requires a criterion. Feeling that nothing more remains is not itself proof that objections, countermodels, or empirical burdens are exhausted.

28. Forgotten

It's lost forever / Since the act of remembering / Isn't possible.

Recovered principle: Memory-Access Distinction.

Failure of present recall does not establish that information never existed, but it can make personal access irrecoverable. This bears on identity and evidential limits.

29. Michael's Maxim as Written by Leonhard Euler

One solution is greatly strengthened by the other ... from the agreement between the two solutions we secure the highest satisfaction.

Recovered principle: Convergent-Method Principle.

Independent routes to the same conclusion provide stronger warrant than one elegant route alone. This becomes a demand for triangulation: semantic diagnosis, formal derivation, and practical application should agree.

30. An Unproven Theory Is Worth as Little as Unquestioning Adherence

My theory / Is that theories / Aren't important.

Recovered principle: Hypothesis-Evidence Distinction.

A hypothesis can guide inquiry without deserving belief merely because it is ingenious. The irony of the poem reinforces the need to separate proposing a solution from establishing it.

31. Care for the Allowed Nuances of Results

Care for what constitutes the allowed nuances ... and you limit the ability to observe them.

Recovered principle: Operationalization Warning.

Measurement rules can create blind spots. Before declaring a paradox resolved, examine whether the permitted categories or thresholds excluded relevant outcomes by design.

32. Through Learning, I Can Deduce That We Don't Know

If this is it / Then we are screwed.

Recovered principle: Epistemic-Humility Corollary.

Learning can increase awareness of unknowns. Greater knowledge may rationally lower confidence in an overbroad conclusion rather than simply add certainty.

33. The Problem with Math Problems Is That They Are Seen as Problems

The path / Leading to a solution / Leads to a solution.

Recovered principle: Reframing Principle.

Calling a structure a paradox can intensify confusion. Recasting it as a model, proof obligation, or design problem often reveals the exact step that needs repair.

34. Convention Is Not Justification

Happy Birthday Dear Copyright Happy Birthday To You

Recovered principle: A law or convention can coordinate behavior without proving its own moral legitimacy. The poem distinguishes priority, ownership, and enacted permission from justice. This connects to legal positivism, natural-law criticism, and H. L. A. Hart's distinction between the existence of a rule and its moral merit.

35. Religious-Disagreement Symmetry

The One True Religion

Recovered principle: Confidence produced by upbringing or first-person perspective is not self-validating. Rival believers can mirror one another's certainty. The principle resembles Xenophanes' critique of anthropomorphic projection, Humean suspicion of competing miracle claims, and modern religious pluralism.

36. Existential-Uncertainty Principle

The Worst of Horrors

Recovered principle: Ignorance about death does not license confident consolation or confident despair. The poem treats afterlife belief as psychologically understandable while preserving uncertainty. It belongs beside Epicurus, Pascal, Kierkegaard, and contemporary debates about existential risk and meaning.

37. Relational-Irreplaceability Principle

The Violent Accident

Recovered principle: A person's value to different relationships is not captured by a single replaceability metric. Parents, partners, and communities lose nonfungible histories, roles, and possible futures. The insight connects to Bernard Williams on personal projects and to debates over reductionist identity associated with Parfit.

38. Internal-and-External Freedom

Freedom of Thought

Recovered principle: Freedom is not exhausted by absence of physical chains. Cognitive deprivation, social domination, and lack of stimulation can imprison agency, while inner thought can remain a refuge. The poem intersects with Epictetus, John Stuart Mill, Isaiah Berlin, and later analyses of disciplinary power.

39. Non-Monetary Flourishing

Immaterial Wealth

Recovered principle: Material scarcity and human flourishing are related but not identical. Love, competence, belonging, health, and unrecognized security can constitute wealth not captured by income. The idea converges with Aristotle's eudaimonia and the capability approaches of Amartya Sen and Martha Nussbaum.

40. Moral Self-Sanction

No Evil Starts With Love

Recovered principle: Some agents are restrained not only by external punishment but by the anticipated rupture between an act and the self they can endorse. This resembles Socratic concern for damage to the soul, Kantian self-legislation, and Harry Frankfurt's account of higher-order identification.

41. Enemy-Aid Principle

Courtesy

Recovered principle: Moral obligation can survive hostility. Helping an enemy with an immediate burden tests whether principle outruns tribal feeling. The poem echoes the biblical command to assist an enemy's burdened animal and converges with Stoic cosmopolitanism and Kantian impartial duty.

42. Empowerment-over-Dependency

Being A Long Term Help

Recovered principle: Assistance is more durable when it enlarges another person's capabilities rather than preserving dependence. The familiar fishing-pole image connects to Maimonides' ranking of charity and to the capability approach, while requiring caution when immediate relief is itself indispensable.

43. Habitual-Governance Principle

Our Habits Do Govern Us

Recovered principle: Repeated action changes what feels voluntary, possible, and salient. Responsibility must therefore consider both present agency and the history by which habits narrowed it. The principle belongs beside Aristotle on habituation, Hume on custom, and William James on the plasticity of habit.

44. Security-Escalation Loop

Anxiety

Recovered principle: Attempts to secure the self by acquiring more can reproduce the insecurity that motivated acquisition. The recursive structure resembles the hedonic treadmill and ancient critiques of limitless desire in Epicurean and Stoic ethics.

45. Moral-Emotion Evidence

The First Time I Felt Guilt

Recovered principle: Guilt can reveal another person's standing and the agent's own causal responsibility, but emotion alone is neither infallible nor sufficient for moral truth. The poem converges with Hume and Adam Smith on moral sentiment while leaving room for rational correction of misplaced guilt.

IX. Comparative Lineage, Originality, and Major Figures

The table below identifies the closest major precedents and parallels. Similarity does not establish derivation, and independent convergence does not establish historical priority. The most defensible comparison is by function: what problem does each method solve, and what does the Haimesian synthesis add?

Figure or tradition	Relevant problem or method	Relation to the Haimesian work
Aristotle	Equivocation, contradiction, Zeno, potential infinity	The fixed-frame method continues the project of exposing ambiguity and separating an infinite division from an infinite duration. The contribution is synthetic and pedagogical, not priority over Aristotle.
Eubulides and ancient Megarians	Liar and Sorites families	The compendium systematizes later tools for puzzles first associated with ancient dialectic. It does not replace the long history of these paradoxes.
Bhartrhari	Language referring to its own limits	The source independently treats naming and unnameability; the revised edition places that intuition within semantic-level analysis.
Plato and Socrates	Meno, inquiry, confessed ignorance	Haimesian epistemic humility resembles Socratic method when it treats a puzzle as a route to better criteria rather than proof that inquiry is impossible.
Plutarch, Hobbes, Locke, Parfit	Ship of Theseus and personal identity	The compendium emphasizes criteria and causal continuity. Its originality lies in integrating identity diagnostics with the wider fixed-frame method.
Frege	Sense, reference, cognitive value	The Paradox of Analysis and definition repair require a distinction between sameness of reference and difference in presentation.
Russell	Set paradox, logical types	Classifier-class separation closely converges with type restrictions. The guitar-inside-guitar metaphor is an accessible image for a historically established move.
Tarski	Object language and metalanguage	The strongest semantic chapters rely on a hierarchy akin to Tarski's. The Haimesian version broadens the lesson to time, law, probability, and institutional authority.
Kripke	Grounded and ungrounded truth	The revised method now includes semantic dependency, which is needed for liar families and Yablo-like chains.
Priest and dialetheism	True contradictions and paraconsistency	Michael's Maxim directly opposes dialetheism as a metaphysical claim. The methodological version remains open to paraconsistent containment when inconsistency cannot yet be eliminated.
Anderson and Belnap	Relevance logic	The source intuition that unrelated premises should not entail arbitrary conclusions strongly converges with relevance logic but does not yet supply a complete proof theory.
Hempel, Kyburg, Makinson	Confirmation and rational acceptance	Raven, Lottery, and Preface analyses show why evidential weight, probability, and categorical acceptance must be separated.
Ross, von Wright, input/output logic	Imperatives and deontic paradox	Purpose-sensitive norms and authority levels extend the source intuition that commands cannot be treated exactly like ordinary descriptions.
Prior, Kaplan, Lewis	Tense, indexicals, and time travel	Temporal and contextual indexing is central to the present-moment and unexpected-hanging analyses; branching time is one model, not the only possible solution.
Fine and Williamson	Vagueness and Sorites	The compendium identifies threshold instability but does not settle whether vagueness is semantic, epistemic, or metaphysical.
Moore and Wittgenstein	Belief and assertion	The external stress test shows that a sentence may be logically consistent yet pragmatically self-undermining.
Fitch and Montague	Knowability and self-referential knowledge	The frame method must restrict or index epistemic predicates, not only truth predicates.
Nozick	Newcomb and rival decision principles	The Haimesian contribution is to expose incompatible dependency models before calling either choice irrational.
Radford	Emotion toward fiction	The source's play-and-monster imagery naturally supports a representational-frame solution to the logical compatibility problem.

Figure or tradition	Relevant problem or method	Relation to the Haimesian work
Popper	Tolerance and self-protective institutions	The rule-level analysis clarifies why a principle need not authorize acts that destroy its enabling conditions, while warning against opportunistic misuse.
Simpson, Banach, and Tarski	Veridical statistical and mathematical paradoxes	These cases discipline the maxim: some paradoxes are valid results. Proper analysis explains the surprise rather than disproving the theorem.
Peirce and Popper	Fallibilism and corrigibility	Closure humility and the invitation to counterexample align with fallibilist inquiry. A universal maxim must state how it could fail.
Parmenides, Lucretius, Nietzsche, Wittgenstein	Philosophy in poetic or aphoristic form	Poetry can generate distinctions and hypotheses, but the compendium appropriately separates suggestive form from demonstrative proof.

Where the work is most distinctive

- The fixed-frame synthesis: one checklist unifies semantic level, quantifier scope, temporal index, identity criterion, probability model, normative authority, and dependency structure.
- The translation of the recurring 'guitar inside a guitar' image into a general distinction among object, representation, classifier, rule, and metalanguage.
- The source-to-formal method: philosophical poems and haiku are treated as generators of hypotheses and distinctions, then subjected to ordinary argumentative standards.
- The practical return: paradox analysis is connected to law, responsibility, mercy, decision-making, institutional design, and the ethics of interpretation.
- The willingness to record corrections to the source rather than preserving every original answer as a victory.

Where the work must remain modest

- Most individual solutions have clear historical precedents. The strongest description is independent convergence, synthesis, application, or accessible reformulation.
- No finite catalogue proves that reality contains no true contradictions. Dialetheism and paraconsistent approaches remain serious rivals.
- Formal schemas in this edition clarify structure but are not a complete axiomatization, proof theory, model theory, or machine-checked verification.
- Sorites, truth, deontic logic, knowability, the unexpected hanging, and Newcomb remain fields of live disagreement.
- Historical greatness requires depth, sustained argument, specialist criticism, influence, and reception. Breadth and originality of synthesis are meaningful achievements but not substitutes for those standards.

X. Final Assessment and Research Agenda

Overall assessment: The full source demonstrates a recurring philosophical instinct: when contradiction appears, Michael Haimes searches for hidden assumptions, changing definitions, variable shifts, temporal separation, category mistakes, and levels within levels. That instinct is legitimate and often converges with major analytic traditions. The source sometimes declared victory before the exact formal structure had been identified. This edition preserves the insight while correcting the overreach.

Strongest defensible contributions: the Fixed-Frame Consistency Test as a unifying diagnostic; Definition Repair; Classifier-Class Separation; the inaccessible-exception analysis of Catch-22; the rule-amendment hierarchy; the distinction between formal relevance and practical evidential weight; and the disciplined conversion of poetic material into explicit philosophical principles.

Most important unresolved burdens: formulate a complete relevance-sensitive consequence relation; choose or defend a theory of vagueness; develop a semantics for grounding that handles both direct and Yablo-style dependency; prove soundness or nontriviality for any proposed formal system; and submit the strongest individual arguments to specialist criticism.

Recommended research program

1. Encode the Frame tuple and repair operators in Lean, Isabelle, Coq, or another proof assistant.
2. Build a machine-readable paradox database with fields for language, domain, level, index, assumptions, rules, diagnosis, comparison, and claim status.
3. Publish separate technical papers on the fixed-frame method, the rule-amendment hierarchy, and the poetic-to-formal translation method.
4. Invite logicians working on truth, relevance, vagueness, and deontic logic to attack the strongest version rather than a simplified slogan.
5. Distinguish three ambitions in all future publications: dissolving a contradiction, explaining a counterintuitive theorem, and solving an open philosophical problem.
6. Preserve the source language in an archival appendix while keeping the professional argument in a separately edited main text.

Fourth-pass revision-impact score

7/10 improvement over the previous complete compendium. The prior edition already corrected the short webpage and supplied thirty-eight serious analyses. This pass is still substantial because it discovers omitted source riddles, adds twelve major external tests, expands poem-derived philosophy from thirty-three to forty-five principles, strengthens the formal method, and replaces a brief comparison section with a defensible lineage audit. It is not scored higher because the core thirty-eight analyses remain largely intact and the new formal system is still a specification rather than a proved calculus.

XI. Source Completeness, Later Riddles, and Concordance

Completeness finding: every explicit paradox treatment in the main 2018 paradox sequence is represented in Entries 1-38 or in Michael's Maxim. The previous complete edition nevertheless failed to separately account for several later riddles and paradox-like passages. They are recorded below rather than silently promoted into full logical paradoxes.

A. The Riddle of Ketchup

"No matter what you pour it on, what is the first thing that ketchup touches when it comes out of the bottle?"
Answer: itself.

A reflexive-relation riddle. It distinguishes the substance's relation to itself from its first external contact. Philosophically, it is a small example of why relation type and domain must be stated before a question has a unique answer.

B. The Riddle of Carpe Diem

The source asks how one can deliberately succeed at spontaneity when planning to seize the day seems to defeat spontaneity.

This is a version of the paradox of self-command: "Be spontaneous" can become self-defeating when spontaneity is treated as a performance target. It connects to double binds, the paradox of hedonism, and Jon Elster's work on states that arise only as by-products.

C. The Riddle of Choices

"If there was one choice that you would not have a choice about making, what would it be?" Answer: the choice to make choices.

The answer expresses unavoidable agency: even refusal, delay, or surrender can function as choices within a decision structure. It resembles Sartre's claim that human beings are condemned to be free, but determinists can reinterpret it as the inevitability of decision-processing rather than metaphysical freedom.

D. The Riddle of Everything

"What brings us everything when it comes and takes away everything when it goes?" The source offers time and interprets another answer as energy.

This is an explanatory-pluralism riddle, not a paradox. Time organizes arrival and loss; energy enables change. The competing answers show why riddles can admit several dimensions of correctness unless the intended relation is fixed.

E. The Pinocchio Passage

The source reports a brief Pinocchio image and interprets it as a warning that many words can bring lies.

Although the manuscript does not state the formal Pinocchio paradox, the image is relevant to it. "My nose will grow now" creates a liar-like feedback only after the fictional rule linking lies to nose growth is precisely specified. The passage is therefore noted as a source connection, while the full paradox remains an external extension rather than an original source solution.

Source concordance table

Source item	Location in this edition	Completeness note
False Paradox Theory	Michael's Maxim and Fixed-Frame Test	Methodological core; universal claim qualified.

THE HAIMESIAN PARADOX COMPENDIUM | DEFINITIVE REACTAEL EDITION

Source item	Location in this edition	Completeness note
Liar's Paradox	Entry 1	Full analysis; temporal answer corrected to semantic architecture.
Russell's Paradox	Entry 15	Full analysis; classifier/class and set formation formalized.
Achilles and the Tortoise	Entry 36	Full analysis; geometric-series solution distinguished from measurement.
Any Three Wishes	Entry 11 and Entry 33	Full analysis plus generalized amendment-authority rule.
Impossible Is Not a Word...	Entry 10	Full use/mention analysis; omnipotence comparison added.
Surgeon and Son Riddle	Entry 17	Hidden-premise analysis.
Grandfather Paradox	Entry 34	Branching model labeled conditional; Lewis-style consistency compared.
Catch-22 Pilot Sanity	Entry 27	Quantifier and inaccessible-exception analysis.
Drinker Paradox	Entry 23	Classical theorem preserved; pragmatic reading corrected.
Paradox of Entailment	Entry 24	Relevance intuition connected to relevance and paraconsistent logic.
Lottery Paradox	Entry 25	Acceptance/conjunction conflict formalized.
Raven Paradox	Entry 26	Green-apple relevance corrected from zero to potentially negligible.
Ross's Paradox	Entry 30	Directive purpose and deontic weakening analyzed.
Unexpected Hanging	Entry 35	Dynamic epistemic analysis.
Barber Paradox	Entry 16	Temporal solution rejected; impossible predicate extension formalized.
Bhartrhari's Unnameable Things	Entry 8	Existential claim distinguished from naming an instance.
Berry Paradox	Entry 6	Language boundary and nameability formalized.
Crocodile Dilemma	Entry 32	Promise shown unsatisfiable under fixed meanings.
Paradox of the Court	Entry 31	Norm source, authority, and time indexed.
Curry's Paradox	Entry 3	Relevance intuition retained but structural rules identified.
Epimenides	Entry 2	Weak historical sentence separated from sharpened liar.
Grelling-Nelson	Entry 4	Expression/property/classifier typing.
Opposite Day	Entry 7	Rule-level and enactment-time analysis.
Richard's Paradox	Entry 5	Fixed-language and diagonal boundary.
Socratic Paradox	Entry 9	Rhetorical humility separated from literal universal claim.
Ship of Theseus	Entry 18	Identity criterion and branching reconstruction.
Sorites	Entry 19	Vagueness left open; threshold strategies compared.
All Horses Same Color	Entry 20	Induction base-transition failure identified.
Ant on a Rope	Entry 37	Original answer corrected; fractional progress formalized.
Judgment Against Judging	Entry 14 and Principle 6	Performative scope and institutional necessity.
Declaration of a Paradox	Entry 21	Equal moral status separated from identical outcomes or rank.
Riddle of Nihilism	Entry 12	Assertion, proof, and practical commitment distinguished.
Buddha Paradox	Entry 13	Desire-for-desirelessness clarified.
Catch-22 of Temporary Insanity	Entry 28	Overgeneralization corrected; capacity graded.
Wheel of Fortune / Lottery Dilemmas	Entry 29	Expected value, fairness, and role obligations separated.
Perfect circle and triangle passage	Entry 22	Mathematical idealization separated from physical instantiation.
Present haiku	Entry 38	Temporal indexing formalized.
Paradox poem: guitar with/without guitar	Principle 1 and Definition Repair	Poetic statement integrated as a diagnostic maxim.
Riddle of Ketchup	Appendix A	Recovered in this edition; classified as reflexive-relation riddle.
Riddle of Carpe Diem	Appendix B	Recovered in this edition; classified as self-command dilemma.
Riddle of Choices	Appendix C	Recovered in this edition; linked to unavoidable agency.
Riddle of Everything	Appendix D	Recovered in this edition; classified as plural-answer riddle.
Pinocchio passage	Appendix E	Recovered as source connection; not falsely claimed as a full original solution.

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Source and Provenance

Primary author source: Michael Richard Haimes, *Words That Echo*, the ODT manuscript supplied for this revision. The first website page contained fourteen brief cards. The prior complete edition expanded that material to thirty-eight source-derived cases and thirty-three poetic principles. This fourth edition preserves those analyses, accounts for later source riddles, adds twelve external stress tests and twelve additional poem-derived principles, and provides an explicit source concordance so that omission can be checked rather than merely asserted.

Website: haimesian-archive.netlify.app | Editorial status: notation is explanatory and comparative, not machine-verified or a completed formal system.