

Dharma, Dao & the Engine

Quiz-ready notes on three readings, plus a flashcard Q&A appendix for active recall.

● **Bilimoria (1993)** — Indian Ethics ● **Hansen (1993)** — Classical Chinese Ethics ● **Schaffer (1994)** — Babbage's Intelligence

Bilimoria — Indian Ethics READING 1

Puruṣottama Bilimoria · in Singer, ed., *A Companion to Ethics*

THESIS

India has a rich ethical tradition, but **not** the abstract, ahistorical, formal theorizing of the West. Ethics is the "soul" of a spiritual + social order, carried by wisdom literature, epics, and law codes — covering **Brahmanical-Hindu**, **Jaina**, and **Gandhian** ethics.

Big framing

- **Naturalistic in appearance, normative in fact** — the cosmic order is invoked to justify and often *absolutize* the moral law.
- **"Right" collapses into "rite"** — obligations derived from a value become ritual itself; rites gain intrinsic worth → differentiated duties per group.
- The cosmic and moral orders **converge in dharma**.

Hindu core vocabulary

rita	Cosmic/natural order; highest good = total harmony with it. Moral order is its correlate.
dharma	All-embracing analogue for "ethics" (duty, law, righteousness, "form of life"). From root dhṛ , to uphold. Closer to Hegel's Sittlichkeit than Kant's Moral Law.
karma	Action-effect: every volitional act generates effects that may manifest later → supports rebirth (samsara).
varna	Four classes: brahmana (religious), kshatriya (rule/defence), vaishya (economy), shudra (labour). jati = birth sub-castes → discriminatory.
purusharthas	Four human ends: artha (material), kama (pleasure), dharma (duty), moksha (liberation — highest & hardest).

- **Weber:** the Vedas "do not contain a rational ethic." **Shankara** (8th c.): no permanent self — *atman = Brahman*.
- **Upanishads:** knowledge over ritual ("knowledge is virtue," Socratic echo); charged with quietism. Three virtues **damyata / datta / dayadhvam** = self-restraint / giving / compassion (Eliot's "DA DA DA").

The Gita (most quizzable text)

- Part of the **Mahabharata**; synthesizes **Nivritti** (anti-action) and **Pravritti** (performative duty).
- **nishkama karma** = **disinterested action**: do your duty *without attachment to its fruits*; a right (**adharma**) to the action only, not the fruit (2.47).
- Compared to **Kant's "duty for duty's sake"** — but lacks Kant's rational-universalizable formulation.

- Maxim (3.35): "**Better one's own duty imperfect than another's well-performed.**" Epic contrast: **Ramayana** (dogmatic righteousness) vs **Mahabharata** (ambivalent — sage **Kaushika**).

Jaina ethics

- Founded ~500 BCE by **Mahavira**; **non-theistic**. Sects: Digambara (sky-clad), Shvetambara (white-clad). **jiva** = sentient principle in *every* entity.
- **Five vows**: ahimsa (non-injury — fundamental), satya, asteya, brahmacharya, aparigraha. Earliest "**animal liberation**" advocates; extreme = fasting to death.
- **Test trap**: ahimsa's motive is as much **avoiding harm to oneself** (harming others damages your own soul) as protecting others.

Gandhian ethics

- Not a theorist — genius is **practical** (takes a tradition like fasting, applies it to civil disobedience).
- **Radical + conservative**: champions untouchables (renames them **Harijan**) yet **defends the varna structure** — objecting only to brahmin over-privilege.
- **satyagraha** ("truth-force") = **satya + ahimsa + tapasya**. Turns ahimsa into **active non-violent action** (suffer injury yourself rather than inflict it) → influenced **MLK Jr.**

Hansen — Classical Chinese Ethics

READING 2

Chad Hansen · classical period 550–200 BCE

THESIS

Chinese ethics is unlike the West. The West splits the mind into **reason vs emotion** and explains action by **belief + desire**, grounding morality in **reason**. Chinese thinkers appeal to **no such faculty** — ethics is **social**: a *dao* ("way"), a public guiding discourse. The tradition is a running argument about whether a *dao* can be put in **language** and stay **constant**.

Master concepts

dao	A "way" — public, objective guiding discourse . Schools disagree on <i>which</i> way is <i>the</i> way.
de	"Virtue" — the character a dao instills. (Modern Chinese for "ethics" = dao-de .)
li 礼	Ritual / convention / propriety — Confucius's inherited code.
ren	"Humanity" — an interpretive intuition : the ability to apply li / rectify names . Can't be taught by explicit rule.
shi / fei	"this:right" / "not-this:wrong" — the act of discriminating with a name.
ming · chang	ming = names/language; chang = "constant," the property a good dao/name would need.

Positive Dao — Confucius & Mozi

- **Confucius (551–479)**: only **transmits** the li of the sage-kings. Program = **rectifying names** (zhengming). **ren** guarantees a correct "performance" of the dao (like **musical interpretation**). **Negative Golden Rule**: "What you do not desire, do not effect on others" — single thread = **loyalty + reciprocity**. **Role-based "graded love"**; **opposes rule of law**.
- **Mozi**: questions tradition's authority ("customs can be very wrong"). **Utility** as the standard of shi/fei → a "**language utilitarian**": advance **li (benefit)**, reduce **hai (harm)**; utility = **objective material well-being**. Advocates **universal love** over Confucian **partial love**.

Anti-language — Mencius & Laozi

- **Mencius**: morality is **innate**, from Heaven, present as "**seeds/sprouts**" (nature, not nurture). **Four seeds → four virtues**: compassion→**ren**, shame→**yi**, deference→**li**, shi-fei→**zhi**. Seat = **xin**. Standard = **the mind of the sage**, not a code book. **Don't pull the rice plants**.
- **Yangzhu** (egoist foil): Heaven fixes lifespan via **qi**; self-preservation a duty. **Laozi (Daode-jing)**: **no dao can be constant because no name can be constant**. **wu-wei** = "avoid deeming action"; value-reversal (prize the weak). "Primitive Daoism": nature supports only the **agrarian village**.

Meta-ethics → Zhuangzi → Xunzi

- **Schools of Names**: reformers want **one-name-one-thing**; **Neo-Mohists** ground names on reality (moral realism); the **third school** shows reality privileges **no** scheme.
- **Zhuangzi (relativism)**: all viewpoints are "**pipes of heaven**," equal from Heaven's view; all shi is **indexical** → non-cognitivism. Upshots: **tolerance**, go with "**the usual**," **second-nature artistry** (the butcher).

- **Xunzi (pragmatic Confucian):** no natural basis for shi-fei — only **fixed convention**. Ritual dao **secures survival** and instills role-differentiated desires ("inequality will lead to equality"). People aren't naturally moral *in content*, only natural **language users**.
- **Aftermath:** Xunzi's disciples → **Legalists** → the **First Emperor of Qin** (burned books, buried scholars, ended the classical age).

Schaffer — Babbage's Intelligence READING 3

Simon Schaffer · "Calculating Engines and the Factory System," *Critical Inquiry* 21 (1994)

THESIS

The design of "intelligent machines" (Babbage's calculating engines) was **co-produced** with the **factory system**. To make a machine *look* intelligent, the **labor force** that built and ran it had to be made **invisible**. In 1820s Britain "intelligence" meant both **surveillance** and the **mechanization of mind**.

Core narrative

- "**Computer**" meant a *human being* — the hireling doing exhausting reckoning. Colebrooke: the engine "substitutes **mechanical performance for an intellectual process**" — "puts an **engine** in place of the **computer**." Babbage: "*I wish to God these calculations had been executed by steam!*"
- **Difference Engine:** the **successive differences of a polynomial are constant**, so tables reduce to addition/subtraction. Nationalised 1830; **collapsed 1834** in a feud with engineer **Joseph Clement**.
- **Analytical Engine** (draftsman C.G. Jarvis): a **store (memory)**, number/variable/operation **cards** — powers of memory + anticipation (**foresight**).

The political-economy argument

- The "Babbage principle" (*Economy of Machinery*, 1832): divide work into processes each needing a **different degree of skill/force**, so the master buys **exactly the precise quantity of each** — a reinterpretation of **Adam Smith's** division of labor. Applies **equally to factory and engine**.
- Machinery = a "check against the inattention, idleness, or dishonesty of human agents." The **least intelligent human "computers,"** rightly managed, were the most reliable.
- The **analytic manager** embodies theory's intelligence and **abrogates the worker's**; the order is visible **only to the overseer**. **Geography of intelligence:** skilled shops in **Lambeth** ↔ shows/societies in the **West End**.

Skill, ownership & the invisible worker

- **Portsmouth block-making (1795–1807):** Navy production overhauled; **military force** disciplined workers; parts **marked to prevent payment-in-kind** (recast as "theft"). Run by **Samuel + Jeremy Bentham** (→ **Panopticon**). Made a **tourist attraction**.
- Workers: skill is **property inherent in the person**, kept opaque. Philosophers of machinery want it **transparent** and priced as a **wage**. (Links to **Foucault, E.P. Thompson**.)
- Babbage to **Wellington (1834):** his inventions are "**more sacred... than any hereditary or acquired property, for they are the absolute creations of my own mind**" — though dependent on the unnamed **Clement**. Fix: **nationalise** engine, tools & designs.

The "thinking machine" puzzle & apotheosis

- **Ure's contradiction** (Marx pounces): the factory is **both** a "**vast automaton**" (machine = subject, workers = "conscious organs") **and** "the combined operation of many orders of work-people" (collective worker = subject). Cooke Taylor: machinery "**degrades the workman into an automaton**," yet no "wood and iron... can think." Imagery: **Prometheus / Athena / Frankenstein**.
- **Ninth Bridgewater Treatise (1837)** answers **Whewell**. **Party trick**: program the engine to count **1** → **1,000,000**, then jump by **10,000** — an apparent "**miracle**" that is really **pre-programmed foresight**. So **memory + foresight suffice to model God** (foresight = providence; memory = the afterlife).
- **Darwin** (an onlooker) adapts it: origin of species by **natural law without divine intervention**. **Payoff**: the "systematic gaze" produces the very order it claims to discover.

Cross-Reading Synthesis ALL THREE

- **Where does moral authority come from?** Bilimoria: cosmic order (*rita/dharma*), often absolutized. Hansen: a **social dao**, not reason or God — with worry that **language can't fix it**. Schaffer: authority is **manufactured** by the systematic gaze.
- **Innate vs constructed morality**: **Mencius** (innate seeds) vs **Xunzi / Mozi** (convention / utility) mirrors modern debates over whether values are **discovered or engineered**.
- "**Disinterested action**": the Gita's *nishkama karma* and Gandhi's non-violence both prize acting **without attachment to outcome** — a non-consequentialist counter to **Mozi's utilitarianism**.
- **The politics of "intelligence" (most AI-relevant)**: calling a machine "intelligent" is a **political act** that **hides human labor** and relocates skill and value to the machine/owner.

Flashcards — Q&A

ACTIVE RECALL

Fold or cover the answers. 37 prompts across the three readings.

INDIAN ETHICS · BILIMORIA

1 What is *rita*?

The cosmic/natural order; the highest good is total harmony with it, and the moral order is its correlate.

2 Define *dharma*.

The all-embracing analogue for "ethics" (duty/law/righteousness/"form of life"), from root **dhr** (uphold). Closer to Hegel's *Sittlichkeit* than Kant's Moral Law.

3 What is *karma* here?

Action-effect: every volitional act generates effects that may manifest later, grounding rebirth (*samsara*).

4 The four *purusharthas*?

artha (material), kama (pleasure), dharma (duty), moksha (liberation — highest & hardest).

5 The four *varna*?

brahmana (religious), kshatriya (rule/defence), vaishya (economy), shudra (labour). *jati* = birth sub-castes.

6 What is *nishkama karma*?

Disinterested action — do your duty without attachment to its fruits; a right (*adharma*) to the action only, not the fruit (2.47).

CLASSICAL CHINESE ETHICS · HANSEN

13 How does Chinese ethics differ from Western?

West: reason/emotion split, belief+desire, morality grounded in reason. Chinese: no such faculty — ethics is social, a *dao* guides us.

14 Define *dao* and *de*.

dao = a "way," public objective guiding discourse. *de* = the virtue a *dao* instills. (*dao-de* = "ethics.")

15 Confucius's central program?

Rectifying names (*zhengming*) — extracting guidance from the inherited *li* (ritual).

7 The Gita's maxim (3.35)?

"Better one's own duty imperfect than another's well-performed."

8 The Jaina five vows?

ahimsa (fundamental), satya, asteya, brahmacharya, aparigraha.

9 Jaina "test trap" on ahimsa?

Its motive is as much avoiding harm to oneself (harming others damages your own soul) as protecting others.

10 What is *satyagraha*?

Gandhi's "truth-force" = satya + ahimsa + tapasya; turns ahimsa into active non-violent action; influenced MLK Jr.

11 Gandhi on varna vs caste?

Defends the varna structure (division of work, part of dharma) while attacking brahmin over-privilege; renames untouchables Harijan.

12 Weber on the Vedas? The three Upanishadic virtues?

"Do not contain a rational ethic." Virtues (Eliot's "DA DA DA"): *damyata*, *datta*, *dayadhvam* = restraint, giving, compassion.

16 What is *ren*?

"Humanity" — an interpretive intuition; the ability to apply *li* / rectify names. Not teachable by explicit rule.

17 Mozi's standard, and his label?

Utility — a "language utilitarian": advance *li* (benefit), reduce *hai* (harm); utility = objective material well-being.

18 Universal vs partial love?

Mozi advocates universal love; the Confucian partial love is self-condemning / inconstant.

19 Mencius's four seeds → virtues?

compassion → *ren*, shame → *yi*, deference → *li*, shi-fei → *zhi*. Morality is innate (nature); seat = *xin* (heart-mind).

20 Mencius's rice-plant metaphor?

You can't force moral growth with language/criteria — like hurrying rice by pulling on it.

21 Laozi: why can no dao be constant?

Because no name can be constant — each needs an interpretive distinction + preferred response. Hence wu-wei.

22 Zhuangzi's key move?

All viewpoints are "pipes of heaven," equal from Heaven's view; all shi is indexical → relativism/non-cognitivism.

BABBAGE'S INTELLIGENCE · SCHAFFER

26 Schaffer's thesis?

"Intelligent machines" were co-produced with the factory system; to make one look intelligent, its labor force had to be made invisible.

27 What did "computer" mean in the 1820s?

A human being — the hireling doing exhausting reckoning for astronomical/navigational tables.

28 The "Babbage principle"?

Divide work by skill/force so the master buys exactly the precise quantity of each — a reinterpretation of Adam Smith; applies to factory AND engine.

29 How does the Difference Engine work?

The successive differences of a polynomial are constant, so tables reduce to addition/subtraction.

30 Ure's contradiction (Marx seized it)?

The factory is both a "vast automaton" (machine=subject, workers="conscious organs") AND "the combined operation of many orders of work-people" (collective worker=subject).

CROSS-READING SYNTHESIS

35 Where does moral authority come from (all three)?

Bilimoria: cosmic order (rita/dharma), absolutized. Hansen: a social dao, not reason/God, language can't fix it. Schaffer: manufactured by the systematic gaze.

23 Zhuangzi's three upshots?

Flexibility/tolerance; go with "the usual"; hone any skill to second-nature artistry (the butcher).

24 Xunzi vs Mencius?

No natural basis for shi-fei — only fixed convention. People aren't naturally moral in content, only natural language users.

25 Xunzi's disciples → what?

Legalists, who served the First Emperor of Qin (burned books, buried scholars, ended the classical age).

31 The "thinking machine" puzzle?

Can workers be shown as intelligent? Cooke Taylor: machinery degrades the worker into an automaton, yet no wood/iron "can think." Prometheus/Athena/Frankenstein.

32 Babbage's party trick / 9th Bridgewater argument?

Count 1→1,000,000 then jump by 10,000: an apparent "miracle" that is pre-programmed foresight. Memory + foresight suffice to model God.

33 How did Darwin use it?

As an analogue for the origin of species by natural law — order without divine intervention.

34 The "systematic gaze" payoff?

Like Bentham's Panopticon, it produces the very order it claims to discover; bodies become profitable-mechanical or wasteful-discarded.

36 Innate vs constructed morality — who?

Mencius (innate seeds) vs Xunzi/Mozi (convention/utility) — discovered vs engineered values.

37 Why is Schaffer most AI-relevant?

Calling a machine "intelligent" is a political act that hides human labor and relocates skill/value to the machine/owner.
