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India and ‘European’ evolutionary political economy

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Abstract

Evolutionary political economy (EPE) deals with populations and economic change over time but has not been systematised beyond European industrial history. The world’s largest democracy India, despite challenges from COVID-19, is now the fastest growing and 5th largest economy in the world, transitioning into a distinct period of industrial deepening, with export expansion in engineering products and services, huge outlays on airports, highways and rail systems, new domestic defence initiatives to boost indigenous R&D, yet retains a global diplomatic stance as a responsible nation–state from vaccine sharing to Asian security. This commentary explores the Indian case to argue that EPE’s combinatorial approach to technological capabilities and industrial development can be considerably strengthened from the study of non-European cases.

Keywords India · Economic development · Evolutionary political economy · Institutions · Institutional variety · Technological capabilities

JEL Classification B40 · B52 · D02 · N00 · O1 · P51

1 Introduction

Evolutionary political economy deals with populations and economic change over time. The world’s largest democracy, India, despite challenges from COVID-19, is the fastest growing economy in the world, transitioning into a distinct period of industrial deepening, with export expansion in engineering products and services, enormous outlays on airports, highways and rail systems, new domestic defence

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initiatives to boost indigenous R&D and a continuing global diplomatic stance as a responsible nation–state from vaccine sharing to Asian security.

This essay references scholarly studies, commentaries and news reports, to provide preliminary perspective and provocation on fast-changing events in a democratic, ancient and complex society. The coming sections provide brief examples and analytical musings about theory and methods. For an essay this short, and a society as complex, choices of materials, references and case selections can only aim to educate and debate. These choices may generate ‘pro-India’, ‘pro-Hindu’ and even ‘pro-BJP’ finger-pointing by some readers. This conflation itself or combinatorial presumption may reflect some readers’ unwillingness to question their news sources, peer ‘echo-chambers’ or merely their unfamiliarity that open debates are occurring in Indian society. This essay uses brief examples for analytical purposes to push EPE to new ground. A long list of topics has been left out but shared with reviewers which would further strengthen the basic hypothesis. Accepted scholarly and government usage of the term ‘Islamists’ versus Muslims is also used. If this essay generates scholarly questions, curiosity, disagreement, but nevertheless refinement, even departures from, evolutionary political economy thinking, it will have succeeded.

IMF (2022) projected Indian growth at 8.2% for 2022–2023, and 6.9% in 2023–2024 (China est. 4.4%, US 3.7% in 2022–2023). This was at the time the world’s highest growth projection (down from 9%, before the Russia–Ukraine war, but higher than the Reserve Bank of India’s projection of 7.2%).¹ The UN Global Multidimensional Poverty Index 2023 indicated a “remarkable reduction of poverty”, with 415 million Indians lifted out of poverty (UNDP 2023). The combination of growth, decline in poverty, considerable state-specific success at reining in COVID-19, rapid transformation of health systems despite high duress, and a continued rise in investment and engineering exports, point to some level of resilience.² A recently successful G20 Presidency foreign ministers’ meet in New Delhi, had, despite the Russia–Ukraine conflict, China, US, Russia, Germany and other European countries (33 bilaterals held) posing jointly and signing numerous agreements.

The argument here is that the narrative of global economic development has been veiled by simple conjectures of institutional change about countries such as India (in most Indian languages, *Bhārath*), especially conjectures on the building of technological capabilities. Yet, a dissent need not mean pathology in the subject, and economics’ scientific basis need not require a forced reconciliation of dissenting views (e.g., Backhouse 2004). Therefore, ‘within paradigm’ case challenges can force EPE’s own pluralist and wide-ranging traditions to become more systematic including differentiating their logic, empirical assertions and interpretations (see Srinivas 2020, 2021a). India’s rise as an industrial nation is not new, but its twenty-first century rise requires new perspectives. The neglect of arguments about institutions and organisations in the building of technological

¹ World Economic Outlook, International Monetary Fund (2022) <https://www.imf.org/en/Publications/WEO>, last accessed 20-4-2022.

² <https://www.undp.org/press-releases/25-countries-halved-multidimensional-poverty-within-15-years-11-billion-remain-poor>, July 11 2023. Micro-level cases of Covid-19 demand and industrial adaptation, show considerable dynamism (mistakes and hurdles included). The cases of industrial oxygen, Covid-19 diagnostic kits, and Ayurveda’s industrial elements, are discussed in Srinivas, S (2021b).

capabilities and the existence of diverse knowledge systems in economic development is likely to be especially costly in the case of India where institutional variety is high. If theories of institutional change in evolutionary political economy are primarily a reflection of Northern and Western Europe's industrial history, can scholarship avoid a doctrinaire approach?

Evolutionary political economy (EPE) can certainly refine its hypotheses on nation states in economic and industrial development. Inferences and judgements about technological capabilities are processed through mental models and conceptual engagement with 'national' industrial transformation and the rise of firms, states and other stakeholders. Generic intellectual nomenclature tends to be unhelpful: Chinese development, German industry, Indian pharmaceuticals, or even less precise 'African manufacturing'. The meandering path of technological capabilities in economic development offers EPE a potentially useful way to study the details of diverse national industry, sub-national industries or sub-sectors. Specifically, such capabilities reveal substantial institutional variety, including divergences in manufacturing history and innovation. In principle, EPE and evolutionary economics are best positioned to study such institutional variety because they address populations, evolutionary units, dynamic processes and time elapse using conceptual building blocks such as selection, variation and retention. These attempts have contributed a focus on units of analysis such as firms, domains of economic activity or trackable investment or skills.

However, EPE is arguably sanguine about how institutional change is explained outside the 'West'.

First, industrialisation during colonisation raises questions of when to begin the 'industrial clock' or even the 'manufacturing clock' of colonised countries, because some industries pre-date colonisation.

Second, missionary and conversion practices, especially of Christianity—during colonisation and ongoing—of Hindus, and India's indigenous 'tribes', raises questions of "independence", "free societies" and 'European values' as exemplar of progress.

Third, India's distinctive multiple, decentralised advances of spiritual and scientific traditions deserve consideration because they sit uncomfortably within the periodisation of Europe's cultural and scientific Enlightenment.

Therefore, one could argue that India's case is 'exotic' in the worst sense of economic development history, that it demonstrates the economic discipline's blindspots on societal evolution itself. Stated differently, *the more unfamiliar are the institutions and organisations or their combinations to the existing political economy traditions of Europe's historical trajectory, the less convincing are European universal theories of industrial transformation as explanations of non-European economies*. This is especially true when arguments of technological capabilities are made because they are knit with assumptions of 'superior' knowledge and social organisation. Nigerian, Indonesian, Egyptian, Iranian or Mexican 'clocks' and own evolutionary perspectives for example, would collectively present a great intellectual leap forward in our understandings of older societies with contemporary industrial context.

Indeed, “historicism’s” challenges are well elaborated:

“Historicism is what made modernity or capitalism look not simply global but rather as something that became global *over time*, by originating in one place (Europe) and then spreading outside it.” (Chakrabarty 2000, 7).³

Similarly, crucial economic ideas of development, ‘underdevelopment’ and ‘backwardness’, however well-meaning, have signified regressive practices and ‘lagging behind’. The ‘West’ has been accused of hypocrisy on ‘progressive’ ideals precisely because of its extensive history of war and genocide, a pretence as ‘defenders of freedoms’.⁴ Influential western media sources have focused on exotica and dirt, poverty and disease. The history of public health has challenges of its own racism and colonisation.⁵

Ironically, media bias might even generate polarising stories in order to drive subscription growth in India which offers the single largest growing English-speaking and English-reading market.⁶ During the 2021 delta wave of COVID-19, commentators in India had cynically predicted that Pulitzers would reward those deriding India for COVID-19 deaths while routinely violating Western norms of showing acute patient suffering. These stories ignored India’s extraordinary vaccines rollout and community health workers’ role, yet providing ‘dignified’ photos of suffering in Europe.⁷

A challenge is that English-language media on and in India often contracts ‘writers for hire’, coupled with visible failures of ethical editorial oversight even in sources ‘of repute’. “Analysing over 3,000 reports from various international publications such as *The New York Times*, *Wall Street Journal*, *Washington Post*, *TIME magazine*, *The Guardian*, *BBC*, one commentary found “[...] exaggerated headlines with minimal substance in the story to support the doomsday prophecies in their headlines. [...] In 500 headlines, it was found that the most used words were these 10: Fear Hate Violence Riot Hindu Muslim Kashmir Cow Mob Protest”⁸ Notably,

³ See also, Rajiv Malhotra’s *Being Different: An Indian Challenge to Western Universalism* (Infinity Press).

⁴ Swarajya (2020). Abhishek Banerjee. “Why ‘wokeness’ refuses to recognise struggle of the last surviving ancient civilisation against global majoritarian behemoths”, <https://swarajyamag.com/blogs/why-wokeness-refuses-to-recognise-struggle-of-the-last-surviving-ancient-civilisation-against-global-majoritarian-expansionism-behemoths>, last accessed 14-4-2020.

⁵ N.A., Peparah, D. & Khan, M.S. Can schools of global public health dismantle colonial legacies?. *Nat Med* 26, 1504–1505 (2020); Abimbola S. *BMJ Glob Heal* 4(5):e002068 (2019).

⁶ See Amol Parth (2021). “Analysis of global media coverage of events in India”, *Communicator*, LVI (4), 125-131, Oct-Dec. http://iimc.nic.in/Content/418_1_AboutTheJournal.aspx;

⁷ Brahma Chellaney. May 4 2021. “The lurid orientalism of Western media”, Project Syndicate. <https://www.project-syndicate.org/commentary/western-media-double-standard-for-crises-in-foreign-countries-by-brahma-chellaney-2021-05>, last accessed 17-04-2022.

⁸ “How a recent study shows inherent biases of Western media when it comes to reporting about India” <https://www.firstpost.com/india/how-a-recent-study-shows-inherent-biases-of-western-media-when-it-comes-to-reporting-about-india-10394641.html>, citing Parth (2021). Last accessed 19-4-2022.

anti-India, anti-Hindu, anti-Modi bias has overlapped.^{9,10,11} The New York Times even ran an employment advertisement seeking an anti-Modi writer.^{12,13}

India is the world's largest, pluralist democracy (some argue the oldest civilisational experiments in democracy). Comparative and nested case studies even of the news are thus an analytical opportunity to reflect India's wealth of social experimentation and its unique institutions and organisations, flaws and benefits both. Many challenges have more to do with municipal, *panchayat*, or state-level diverse political parties than with the national government: Severe delays in justice and overdue police and judiciary reform are routine. State and local governments struggle with basic services in high-density metropolitan areas; problems of fiscal base and incessant corruption exist in dealing with crime or land records at state-level; challenges abound in upgrading law and order and police training to deal with more complex crimes including data security problems, rising domestic terrorism, and terrorism financing, arms, and narcotics and human trafficking by global groups. A creaky healthcare system was put under test by the pandemic, and job pressures grow for a young population with minimum social protections. A closer look may also reveal intellectual corruption, colonised minds and academic and wider bias (e.g., Shourie (1998) on India's Communist historians and their political power). Assertions of serious bias and complicit academics deserve far more study.

Section 2 discusses economic organisation and knowledge, with examples of religious and spiritual diversity, population scale and fractions, economic monopolies and multilateralism.

Section 3 presents brief perspective on why the EPE theoretical gaps persist, and combinatorial opportunities for case selection.

Section 4 concludes on opportunities for EPE.

2 Economic organisation and knowledge systems: complexity in Indian industrial transformation

Geography-centric explanation, some argue history-centric too, cannot provide universal economic theories. There remains genuine scholarly ambiguity about how to reconcile the history and geography of industrial development with the rise of culturally

⁹ The Print. 7 May 2020. "Why foreign media loves anti-BJP, champagne socialists as columnists" <https://theprint.in/opinion/foreign-media-loves-anti-bjp-champagne-socialists-columnists/415968/>, last accessed 03-2-2022.

¹⁰ Vamsee Juluri (2019) "An analysis of NPR's depiction of Hindus in 2019", <https://pragyata.com/analysis-of-nprs-depiction-of-hindus-in-2019/>, last accessed 20-4-2022;

¹¹ Times of India (2019). "US radio producer forced to quit after anti-Hindu slur" <https://timesofindia.indiatimes.com/world/us/us-radio-producer-forced-to-quit-after-anti-hindu-slur/articleshow/71102210.cms>, last accessed 20-4-2022.

¹² WION. July 5 2022. "Is being anti-Modi a qualification for a job at NYT?" <https://www.wionews.com/videos/is-being-anti-modi-a-qualification-for-a-job-at-nyt-395406>, last accessed 04-05-2022; Newslaundry. 8 July 2021. Did NYT's job posting for a business correspondent in India deserve the outrage it got? <https://www.newslaundry.com/2021/07/08/did-nyts-job-posting-for-a-business-correspondent-in-india-deserve-the-outrage-it-got>.

¹³ From 2019 see <https://theprint.in/opinion/the-muslims-voting-for-the-bjp-are-richer-more-educated-and-conservative/122032/>, last accessed April 3 2023.

different political economies such as of China and India (see Table 2). India is a democracy of many flavours, the world's largest former colony and long-term target for Christian missionaries and Islamists (medieval and contemporary) with their own proselytising missions. These efforts are not necessarily benign. A contemporary organisation PFI, with ties to the Islamic State, Al Qaeda and other terrorist groups, has called for turning India into a Caliphate by 2047, the 100th year of India's independence. This old 'Ghazwa-e-Hind' call, is echoed across the world, to conquer "Hind" or "Hindustan".¹⁴

Yet most Indians live peacefully. The Dalai Lama has often called India the world's best example of religious tolerance and its traditions a future education model.¹⁵ India is thus poorly understood as an institutional amalgam of considerable complexity. It represents a unique "multicultural salad", of cohabiting, but separated, ingredients, unblended into a 'soup' or 'melting pot'. India's social tensions may require a variant of S. Africa's Truth and Reconciliation process but scrutiny of such 'truth' requires engagement with Indian theories and their own several literary and historical *parampara-s* (e.g., Paranjape 2017). Acknowledgement of histories is not simple, especially when scholarly plurality itself is limited: that the civilisation (the Republic later consolidated many kingdoms and principalities) has been under siege for centuries in whole or part by invaders and new settlers, followed by trade and colonisation attempts by European powers from Danes to English, French to Portuguese powers.¹⁶ Older Indian empires, stretched from Indonesia and Thailand to Afghanistan and beyond. *Bhārath/Hindustan*, was the birthplace of the world's *Dharma* (including Hindu/Sanatana Dharma, Bouddha, Sikhi and Jaina). India had among the earliest intersections with Christianity, is home to Jewish, Parsees, and Bahai, with Jewish communities in India speaking of the welcoming presence over centuries. Most Indian schoolchildren learn at least 3 official languages. This complexity is wrapped quickly in media, even scholarly articles, with 'ethno-nationalism' and incorrectly as polytheism, unhelpful, just as 'European' hides national, economic or cultural differences. However, because economics treats 'Europe' and the 'West' as originator of much moral philosophy and theory, the same is used here to begin the discussion.

In 2022, India overtook former coloniser Britain to become the 5th largest economy valued at over US\$3.25 trillion, is now the largest country by population, member of elite technological 'clubs' from aerospace to defence, largest single 'newcomer' group of diaspora CEOs of tech firms and major multinationals, significant presence in satellite launches, Mars Lander launch and orbital missions, telecoms, and developer of critical

¹⁴ Another view: <https://theprint.in/opinion/everyone-misinterprets-ghazwa-e-hind-but-a-jamiat-scholar-explains-what-it-really-means/301686/>, last accessed 8 June 2023.

¹⁵ Sept 23 2019 "India is a perfect example of religious tolerance for the world: Dalai Lama" <https://www.tibetanjournal.com/india-is-a-perfect-example-of-religious-tolerance-for-the-world-dalai-lama/>, last accessed 22–4-2022; Republic World 23 Dec 2021 "India is a living example of religious harmony across the world": the Dalai Lama" <https://www.republicworld.com/india-news/general-news/india-is-a-living-example-of-religious-harmony-across-the-world-the-dalai-lama.html>, last accessed 22–4-2022.

¹⁶ The Portuguese were forced out of Goa in 1962, 15 years after formal independence from Britain.

global product areas from drones to light aircraft, pharmaceuticals, biotech, and automotive, “unicorns” in retail to digital pay platforms.¹⁷ In December 2022, India clocked record digital transactions, higher than China, far higher than the U.S. Its firms have acquired famous brands overseas, and from film production to semiconductors, India offers opportunity for foreign firms. India holds the Chair of the G20 in 2023 and participates in security collaborations such as the Quad, I2U2, joint defence partnerships with countries as diverse as U.S, Cyprus, Egypt, Israel, Australia and UAE. A vastly expanded indigenous defence industry will require new procurement methods that have been mired in challenges. New production linked incentives (PLI) have boosted industry.¹⁸ From ‘emerging’ to ‘future superpower’ to ‘LMIC’, to ‘middle class’, the labels proliferate.

Does Europe’s history-inspired evolutionary political economy artificially limit economic analysis to specific combinations of institutions and organisations? Do they constrain hypotheses of development and convergence or divergence measures of industrial development? For instance, if the focus is technological capabilities and manufacturing value-added, but the society is otherwise labelled ‘backward’ because of religion or violence, this would seem to invalidate the idea of ‘good’ social capabilities that undergird institutional and organisational combinations needed to develop. Conversely, if societies have the ability to build technological capabilities at all, under what conditions does income per capita, or social strife matter? Which types of knowledge organisation and what accretion of knowledge or internal reform do dynamic economies embody? Such causality needs further discussion, not a ‘magic sauce’ thesis (Srinivas 2020; Abramovitz (1986); McCloskey 1990) neither negative ‘transference’ behaviour of assumed superiority that generated the ‘West’s’ Indic studies (e.g., Adluri and Bagchee 2014). The urge to force-fit nations into ‘Left’, ‘Right’, and “nationalism” has also arguably been a social science conclusion derived primarily from European polity and its classifications, not one necessarily revealed through specific methodology derived from or convincingly embedded in Indian context.

Thus, four economic complexities below about ‘progressive’ societies deserve scrutiny, to build theories of institutional variety.

2.1 Church versus state versus science

The original institutionalism correctly anticipated that certain institutions might become dominant at times, and that cultural evolution was slow. Knowledge systems may starkly differ by core economic tenets in the building of technological capabilities as in India. For example, *Artha* has meanings other than monetary wealth, while *Dharmic*

¹⁷ In March 2023, NewSpace India Ltd (NSIL), the commercial arm of the Indian Space Research Organisation (ISRO), a public sector organisation, bested its own record, with a launch of its heaviest LVM3 rocket from Sriharikota putting 36 private UK-based OneWeb Group satellites into orbit across the globe.

¹⁸ The PLI scheme (\$ 3.5 bn, up to 18% incentives in automotive, \$10 billion for semiconductor production and design) boosts manufacturing and aims to draw in investment for advanced automotive technology products, self-reliance in pharmaceutical APIs and a global manufacturing hub for medical devices.

traditions do not vilify wealth, neither equate with class, neither to classical liberalism, nor to ‘capitalist greed’. Similarly, on knowledge: the learned Brahmin “Upper Caste” is romanticised or vilified based on an ‘atrocious’ literature, rarely acknowledging sacrifices, poverty or what a strict *Brahmana* life implied. Brahmins are excluded from most state benefits even today and have little political or economic power. Furthermore, the relentless bogey of ‘caste’ oppression may have histories in German and Christian conversion-driven Indology and ‘atrocious’ literatures (e.g., Adluri and Bagchee 2014). Conversion practices may have faced hurdles from Brahmins (e.g., Francis Xavier’s extreme Goa cruelties). Some conversion practices in Christianity and Islam both appear to monetarily reward converting Brahmins and ‘upper castes’ over others.¹⁹ Vaishyas and Shudras, essential elements in the *Varnashrama* of business and services, have had different roles over time, with documented Shudra kings and essential Vaishya power. Hindu social reform from inheritance to marriage have many examples (Adluri 2011) while regressive practices in many other communities are mostly globally ignored.²⁰ Inter-*jati* or inter-religion marriages occur in all social groups especially in urban India. These issues receive limited scholarly and media attention.

English education in India, indeed most colonies, ‘convent schools’ and ‘secular’ education reflected the civilising presumption of European rulers, Christian missionaries with support of the colonial state, and became a powerful way of providing social mobility while painting Hindus as backward ‘idolators’. Crucial Indian languages especially Sanskrit (*Samskrita*) were overridden, its use disincentivised.²¹ Indian ‘secularism’ is uniquely and selectively over-involved in one religion: the continuing stranglehold of state control of many Hindu temples and their extensive resources. This discrimination of historical and fiscal importance is now being constitutionally challenged in slow-moving, expensive, and fraught, legal cases.

Indian society has strong social stratification through the ages but social reform movements have also grown. *Dharmic* authority is not centralised and can co-exist with non-exclusivist, pluralist and individualist philosophies of worship such as for Hindus and Jains.^{22,23} ‘Religion’ translates poorly from the West: e.g. Jaina *mathas* do not believe in “God” as portrayed in the Abrahamic, Semitic traditions, while some Hindu/Sanatani traditions are materialist or appear closer to Western atheism, they are nevertheless considered seekers, e.g., the *Cārvāka darsana*.²⁴ *Vaidika*

¹⁹ Francis Xavier’s Goa mission is an example of such observation of hurdles in conversion.

²⁰ ‘Christian sociology’: Christian missionaries heavily influenced American sociology’s methodology (Zurlo 2014) and ‘professional’ (non-missionary) domains such as social policy, social work, medicine and public health, education reform. (Brunner 2021).

²¹ See ‘Sanskrit non-translatables’ Rajiv Malhotra and Dr. Satyanarayana Dasa Babaji (Infinity Press). Also, Dharampal (1983); *The Beautiful Tree: Indigenous Indian Education in the Eighteenth Century*.

²² Practices can transfer across religions: karma, ‘caste’, Ganga purification. While religious freedom is claimed by many, most prefer separation of communities.. “Religion in India: tolerance and segregation” June 21 2021. <https://www.pewresearch.org/religion/2021/06/29/religion-in-india-tolerance-and-segregation/>, last accessed 02-05-2022.

²³ Many survey methods reflect a misunderstanding of Western terms such as ‘God’, ‘soul’, ‘salvation’, ‘religion’, and do not delve into non-exclusionary vs exclusionary philosophies.

²⁴ Kushal Mehra May 1 2022. “Imagine there’s no Svarga: rediscovering Cārvāka, India’s 2,700-year-old atheistic tradition”, <https://quilllette.com/2022/05/01/rediscovering-the-indian-atheistic-tradition/>, last accessed 03-05-2022.

Sanatani Hindu traditions for example are notably decentralised in many respects. *Sanskrita*, *Prakrit* and other older languages provide links to traditions and adaptations within *sampradaya* and across diverse *naths*, *panths*, yet with similarity and cohesion across the Vaidika/Vedic traditions. *Ashrama* life could be considered among the first communes in responsibility and shared purpose.

Despite such different society's building blocks, the units of analyses continue to be driven by western, specifically European, ideas and ideals. "Thus the particular combinations of knowledge-generating social groups have been indicted and sidelined in unusual ways in both the study of science, and of development (Alvares 1991, 5–7). "Anti-science" reflects Continental European histories of church and state controls, and its forms of evolution in secularism or capitalism. *Dharma* however, does not imply 'religion' in India. *Dharma* and science appear to easily co-exist but represent different domains of *Adhikara* (authority) and worldly experience. Diverse Hindu/*Sanatani*, Buddhist or Jaina groups and scholars and priests would be quite shocked to be considered anti-science, but possibly argue for reason, rationality and other enquiry towards *moksha*, beyond the "scientific method".²⁵ Most practicing *Dharmic*, *Vaidika* tenets instil deep reverence (beyond the *Anthropocene*) for nature, cosmology, and accommodate ideas of "One" entity manifested in diverse ways (*Jiva*, *Atma*) throughout Creation. The *Cārvāka Darśana*'s materialism appears to predate its Greek counterparts. Dharmic acceptance of science also predates and extends practices beyond the many contributions of modern psychology and cognitive and physiological process of experiencing what is formless, or personal manifestations of *Brahman* (e.g. *Ishta Devathe*) or overlapping ideas of *Moksha* or *Nirvana*. The ancient Dharmic/Indic open debating traditions, offer extensive collective contributions to science, logic, rhetoric, medicine, philosophy, astronomy, mathematics, architecture, performing arts and other fields. *Vaidika Sanatani* Hindu understanding of the Supreme *Brahman*, is cosmological and epochal in scale and time, and portrays *yugas*, cycles and daily life practices as opportunities for seeking the Self, experiencing *moksha*.²⁶ The *Darśanas* (experiential philosophical schools) comprise actionable practices and life philosophies, not merely academic areas.

The genesis of viewing rational thought or logic as itself the exclusive province of Greek and European civilisational may be partly to blame:

"A distinct problem for inclusion in philosophy comes [...] to the problematic terrain of extending outward to distinct traditions that cannot lay claim to being *philosophical* because the tradition is not backward traceable to Plato" (Vaidya 2017, 44).

²⁵ See commentaries by diverse commentators such as Dushyant Sridhar, Satyan Sharma, Rajiv Malhotra, Nitin Sridhar, Subhash Kak, and others, that Dharmic traditions do not require modern science's *adhikara* for legitimacy, and have extensive commentaries on rationality, logic, methods of enquiry and form of evidence (beyond *pramana* and *pratyaksha*).

²⁶ The Hindu/*Sanatana* Dharma *Dashavatara*, or the ten avatars of Vishnu, begins with fish, then amphibians, half-animal, shorter humans, taller ones rising in physical and psychological stature. While these could be seen to cover personal psychology, and the spiritual ascent over diverse *yuga*-s, embedded in stories of social conflict, the *Dashavatara* as many have explained, contains core ideas such as *samskara*, *karma*, *punarjanma*, *maya*, *mithya*, and *moksha*.

However, in independent India, the organisations of Indic and Hindu/Sanatani education, temples, cultural practices and religious, community resources, are controlled excessively and punitively by what manifests as a non-secular state. This cultural overwriting is compounded by academics: Western universities have practicing Chaired scholars of most religions (Judaism, Islam, Christianity, Buddhism) but infrequently Hindus, let alone practicing ones with recognised *Adhikara* (authority), even when studying Hinduism itself.

2.2 Scale and fractions

Population analysis is not necessarily a complex endeavour but can be made more so by boogies of ‘majoritarianism’. First, no large-scale violence against Indian minorities by Hindus has been offered with credible evidence despite many famous scholars and politicians supporting this view.²⁷ Second, systematic scholarship requires clarifications of scale, fraction, and location of ‘minorities’. Indian Muslims, equal to approximately half the U.S.’s population, will by 2050 be the world’s largest Muslim population with its own internal diversity.²⁸ This diversity includes difficulties of Indian Muslim reform of social codes, some with high gender inequality, low education attainments, and Muslim ‘caste’ hierarchies of ‘Ashrafis’ and others. Third, Indian minorities are hugely diverse and some have indeed thrived. Disproportionately small populations of Jains, Parsees, or even Ismaili or Bohra Muslims (considered non-Muslims by some Sunnis), are highly successful Indian education and business communities, many acting as stewards of large industry, or higher women’s equality.²⁹ Fourth, Indian states and districts have diverse majority populations. Hindus are minorities in several Indian states, but have no special supports, with violence against them under-reported.³⁰ Fifth, widespread illegal immigration into India adds specifically to Muslim populations from Muslim-majority neighbouring countries, many from even poorer, more conservative social settings at odds with Indians. A yet to be enumerated influx of illegal Bangladeshi and Rohingyas into India, many with apparent domestic political patronage in Indian state-level governments, appear to force demographic and cultural change on others. This is compounded by weak Indian security, measurement challenges of religious conversions, illegal settlements, and criminal activity. Sixth, Hindus, Christians and Sikhs, facing patchy but globally documented violence in Afghanistan, Pakistan or some in Bangladesh cannot easily enter India.³¹

²⁷ <https://www.firstpost.com/opinion/no-mr-obama-minorities-in-india-are-not-exploited-by-hindu-majority-12815392.html>, last accessed July 2 2023.

²⁸ <https://www.pewresearch.org/fact-tank/2015/04/21/by-2050-india-to-have-worlds-largest-populations-of-hindus-and-muslims/>, last accessed April 7 2023.

²⁹ For the state of uneven “minority” rights in India, see <https://scroll.in/article/716824/minority-rights-indias-powerful-jain-community-suffers-from-muslim-envy>, last accessed March 30 2023.

³⁰ <https://www.hindustantimes.com/india-news/define-minority-supreme-court-asks-panel-to-review-state-wise-populations/story-4Saq4E1JX9S8IVVm6yVnZO.html>, last accessed March 30 2023.

³¹ Taliban-led Afghanistan was predominantly Hindu and Buddhist in the past, and Bangladesh had a significant Hindu population. An ongoing genocide of Pakistan’s Hindus, Christians and Sikhs (murder, rape, forced conversion) receives limited global attention.

The Indian Constitution also retains notably non-secular, colonial features: as mentioned, major Hindu temples remain controlled by the state, arbitrary laws make it difficult to challenge the prior usurping of temples or their return to worshippers (despite documented evidence of being taken), past temple wealth has been looted by state and others (as court cases indicate), and current wealth is siphoned off by bureaucrats and state governments (astoundingly in some cases transferred to fund Muslim and Christian programs or other fiscal needs of the state). The Indian Constitution itself is a mix of untenable, confusing, inconsistent and regionally meaningless colonial administrative categories including clumsily perpetuating modern “castes” from an immense set of *jati* identities which compound several confusions of Hindu *Varnashrama* and its Vedic postulates. Today, many Indian lawyers and judges, trained in western social theory, have been accused of deracinated speech and language, with limited empathy and understanding of their own society and culture.³²

A cohesive India and its territorial boundaries are constantly under threat. Sedition, terrorism and secession cases abound. A radicalised Pan-Islamist ‘*Khilafat*’ or Caliphate movement with Ottoman leanings has generated a new generation which has unleashed economic losses, arson, and personal and group terror with open (televised, social media) mob-led beheading calls, horrific beheadings (“*Sar Tan se Juda*”) and stabbings of mainly Hindus, rarely reported in the global press. Muslims who have spoken out have also faced threats.³³

A lazy ‘majoritarianism’ bogey is thus unacceptably unempirical for EPE. Population scale and fractions matter to define units and dynamics of change. Uttar Pradesh state’s population for example is approximately 60% of the US’s population (approximately 200 million today which if a country, would be the 5th largest global population). The BJP’s historic re-election for this biggest state, and 60+ Muslims winning on the BJP ticket in recent local assembly elections, the Goraknath *Mahant* as Chief Minister, requires more analysis. There is no evidence yet of his corruption, or disfavour by residents’ religion or income. Efforts to increase drinking water availability and toilet building across UP has had significant impact on low-income, rural women, where everyday amenities, dignity, autonomy and personal safety have emerged as critical UP debates and BJP successes. Muslims supporting this Chief Minister, the BJP, or organisations such as the RSS have been threatened and attacked by radicals.^{34,35}

³² Victory for jurisprudence and Indian democracy include a recently lifted ban against cultural festivals such as *jalikattu* (indigenous bull ‘taming’ without equipment) and *kambala* (buffalo racing), and making *Triple Talaq* (instant divorce) illegal to help Muslim women.

³³ One of the Constitution’s framers Dr. B.R. Ambedkar, strongly eschewed Hinduism for Buddhism, but writes eloquently on Islam’s antipathy to co-existence and tolerance of others, in ‘his Pakistan or the partition of India’. See <https://openthemagazine.com/essays/was-ambedkar-anti-islam/>, last accessed 07-04-2023.

³⁴ The Business Standard (2022). “Who did Muslims vote for in UP?” https://www.business-standard.com/elections/uttar-pradesh-assembly-elections-2017/who-did-muslims-vote-for-in-up-117031200015_1.html, last accessed 20-4-2022; see also Pew assessments (Sahgal et al. 2021).

³⁵ Times Now News (2022). “UP: Rs 1 lakh bounty, fatwa against Muslim doctor in Moradabad for supporting RSS” <https://www.timesnownews.com/india/up-rs-1-lakh-bounty-fatwa-against-muslim-doctor-in-moradabad-for-supporting-rss-article-90665986>, last accessed 20-4-2022;

Electoral calculus is region and issue-specific. Similarly, many practicing Hindus disagree with the BJP, arguing that their trust is misplaced. Many opposition parties are accused of ‘appeasing’ radicals, refusing to condemn the violent calls for (and actions of) beheading, or against blasphemy. Kerala Christian leaders have spoken of Islamist ‘love jihad’ (radicalisation and grooming).³⁶ Nationalist Indian Muslim and ‘ex-Muslim’ voices increasingly do appear on social media and prime-time news to assert a distinct Indian-ness, speaking of their country’s liberties and speaking out against pressure (or perception) of ‘hard’ sharia.³⁷ The U.S.’s Pew Research study indicated that: “The vast majority of Indians say they are very free today to practice their religion (91%), and all of India’s major religious groups share this sentiment: roughly nine-in-ten Buddhists (93%), Hindus (91%), Muslims (89%) and Christians (89%) say they are very free to practice their religion, as do 85% of Jains and 82% of Sikhs” (Sahgal et al. 2021).³⁸

Yet, ‘Cow, caste, poverty (or curry)’ tropes persist. It would therefore be useful to ponder why ‘majority’/‘majoritarian’ Indian Hindus, have historically had limited control of their education, schools, textbooks, universities, temples, temple assets, ceremonial preferences, cultural heritage, or have lacked legal redress for well-documented scales of past destruction. This is a failure of secular democracy or represents a secularism that most Europeans would not recognise. Very successful minorities abound and appear to live well. A ‘majority–minority’ taxonomy is impoverishing for EPE.

2.3 Economic versus religious monopolies

The word ‘Religion’ does not well describe Sanatana Dharma/Hinduism, but even for those communities it does well describe, religion is unsurprisingly embedded in the Indian economy, Business, profits and co-existence require some focus on differences in ancient and contemporary ways of life, wider trading networks, selective use of force to enforce economic monopoly, willingness to co-exist, appetite to generate insecurity of others’ individual or group assets.

An increasingly vocal Indian is asking for one law and enforcement standard in a diverse society, freedom to practice or speak freely, exhibit consumer choice, restrictions on market power.³⁹ Police and media ‘to maintain law and order’ often refuse to file criminal charges at all, or to identify assailants from powerful citizens to

³⁶ <https://www.theweek.in/news/india/2020/01/15/christian-girls-targeted-and-killed-in-name-of-love-jihad-kerala-syro-malabar-church.html>, last accessed 19–06-2023.

³⁷ An example is India this week By Amana & Khalid, “*Dara Huwa Musalmaan*”: “It is a colossal tragedy that mainstream media of India continues to paint India as a long of Hindu radicalization and Muslim victimhood.” <https://www.youtube.com/watch?v=OEsrnT6l9gk>, last accessed 15-4-2022.

³⁸ <https://www.pewresearch.org/religion/2021/06/29/religious-freedom-discrimination-and-communal-relations/>, last accessed 20–4-2022.

³⁹ Western reportage highlights ‘far-right’ ‘vigilante’ attacks on cattle-smuggling but simplistically pits Hindus (many of whom revere the cow, and most who don’t eat beef) against Muslims. What requires study are the actual consumers, dynamics of this supply chain (and mixed groups), the precariousness of livestock as assets especially in rural areas, and an extensive smuggling mafia.

minorities (similar claims have been made about criminals or 'no-go' zones in Europe). Media houses and film often do the same, although this is slowly changing. Political parties, village councils, or *taluk* or district bureaucrats, or the courts (for whom even documents and proceedings are rarely in local languages), do not respond to insecurity concerns, even in life or death situations. These may begin with theft of crucial land, cattle, sand, water, crop or other assets, or to group intimidation against music, weddings and religious processions, or perceived lack of reciprocity of traders being allowed on or near religious premises.

The *halal* meat case (where animals are bled out alive) versus *jhatka* meat (animals are killed quickly, required by Sikhs and preferred by some Hindus) could be analysed exclusively as a religious claim, or a heightened boycott and opposition to local and global monopolies under the guise of a single, expensive '*Halal*' certification of global acceptance that appears outside the purview of India's official food certification systems.⁴⁰ India's fair application of law requires a rule book that stresses merit and standards, transparent competition and procurement policies, or non-tariff trade barriers in specific industries and supply chains. *Halal* supply chains not only require a costly certification procedure on non-Muslims, they link directly to global monopolies. They require mostly Muslims in employment, generating labour discrimination in supply chains from the act of slaughter to hiring in 'halal' tourism to hospitals, rentals, and expanding monopolies in labeled consumer products, from shampoo to even vegetarian products such as wheat, oil, and pickles.

The extent of such a 'religious' monopoly thus provides a useful EPE analysis since it extends well beyond India. In Muslim or Jewish *halal* and *kosher* systems too, strife exists, e.g., in Indonesia, Israel, the UAE or Saudi Arabia where costs and objections remain to food certification by religious authorities.^{41,42} The WTO's sanitary and phytosanitary standards are likely to be further challenged in such products that limit consumer choice (e.g., choice of meat or how slaughtered), employment discrimination by religion or active discrimination against constitutionally protected disadvantaged communities, or national security concerns that overlap with economy (dominance of food or freight monopolies, exclusive and expensive certification and licencing systems, barriers to exports).⁴³ *Halal*'s political economy thus

⁴⁰ Protests and petitions argue the diverse 'scientific', 'religious', and employment discrimination claims of meats. McDonald's, Air India and Indian Railways have halal procurement and customers objecting.

⁴¹ Times of Israel. 24 June 2016. "Restaurants push back at rabbinate over kosher monopoly" <https://www.timesofisrael.com/restaurants-push-back-at-rabbinate-over-kosher-monopoly/>, The Jerusalem Post May 1 2022 "Hendel announces reform of ultra-Orthodox kosher phones market" last accessed 30-04-2022; <https://www.jpost.com/business-and-innovation/all-news/article-705609>, last accessed 02-5-2022.

⁴² Indonesian case. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3256711, last accessed 02-05-2022. Ahamat, Haniff and Rahman, Nasarudin Abdul, Halal Food, market access and exception to WTO law: new aspects learned from Indonesia — chicken products (September 28, 2018). Asian Journal of WTO & International Health Law and Policy, Vol. 13, No. 2, pp. 355-373.

⁴³ For example, the WTO "Understanding the WTO agreement on sanitary and phytosanitary measures": "It allows countries to set their own standards. But it also says regulations must be based on science. They should be applied only to the extent necessary to protect human, animal or plant life or health. And they should not arbitrarily or unjustifiably discriminate between countries where identical or similar conditions prevail." https://www.wto.org/english/tratop_e/sps_e/spsund_e.htm, last accessed 02-05-2022. On Israeli Kosher, see also Table III.6, Import prohibitions and licensing.

makes separation of state from religion difficult, with consequences for industrial regulation of ‘blessed’ food certification via religious authorities (even non-meat products).

The previous three mentions of ‘religion’ and its economic and population complexity, and the discussion below, caution against generic use of ‘equality’, ‘discrimination’, ‘democracy’ to ‘majority’ and more useful focus on how to use the daily realities of economic activity to build viable theory or case selection frameworks.

2.4 Whose ‘rules-based international order’? Multilateral morality

Many Indians, including Prime Minister Modi, have emphasised that *Bharatiya* sub-continental democracy dates from 2,500 years or more: ‘Democracy is not only of the people, by the people, for the people but also with the people, within the people’.⁴⁴ What quality and facets of democracy India had or builds in the future, clearly remains to be studied.

Despite its own COVID-19 struggles, India donated, sold or discounted vaccines to over a 100 countries under the adage *Vasudaiva Kutumbhakam* (the world of living beings is one family).⁴⁵ Whether essential *Dharmic* philosophy or suave geopolitical strategy, these exports occurred against a backdrop of European and US vaccine hoarding. The domestic use and exports displayed India’s technological advances of researched and manufactured vaccines Covaxin (private Indian company Bharat Biotech), and Covishield (India’s Serum Institute’s manufacture of Astrazenaca UK), as well as COVID-19 kits, PPEs, pharmaceutical and biotech therapies. Indian capabilities in Ayurveda also emerged as significant global niches with the new Gujarat-based WHO’s Global Centre for Traditional Medicine.^{46,47}

⁴⁴ “The democratic spirit is integral to our civilisation ethos. Elected republican city-states such as Licchavi and Shakya flourished in India as far as 2500 years back. The same democratic spirit is seen in the tenth century “Uttamerur” inscription that codified the principles of democratic participation. ...” Prime Minister Modi’s Dec 2021 full statement here: https://www.youtube.com/watch?v=j6RRFGsfa_4, last accessed March 27 2023.

⁴⁵ Times of India (2022). India provided Covid vaccines to over 100 countries with philosophy of Vasudhaiva Kutumbakam: ICMR”, Read more at: <https://timesofindia.indiatimes.com/india/india-provided-covid-vaccines-to-over-100-countries-with-philosophy-of-vasudhaiva-kutumbakam-icmr/articleshow/88934962.cms>, last accessed 20-4-2022.

⁴⁶ Swarajya. March 24 2022. <https://swarajyamag.com/health/ayush-ministry-to-conduct-worlds-first-multicentre-phase-3-clinical-trial-in-ayurveda-for-rheumatoid-arthritis>, last accessed 22-4-2022; Business Standard April 20 2022. “Age of traditional medicine will start with WHO centre in Jamnagar: PM Modi” https://www.business-standard.com/article/current-affairs/age-of-traditional-medicine-will-start-with-who-centre-in-jamnagar-pm-modi-122041901138_1.html, last accessed 22-4-2022.

⁴⁷ OpIndia. April 19 2022. “Centre to bring ancient wisdom and modern science together”: PM Modi lays foundation stone for WHO Global Centre for Traditional Medicine”, <https://www.opindia.com/2022/04/pm-modi-lays-foundation-stone-for-who-global-centre-for-traditional-medicine-tedros/>, last accessed 21-4-2022; Abantika Ghosh 20 April 2022. “Behind Modi & Dr Tedros’ smiles in Gujarat, India & WHO are at war over Covid deaths, Covaxin” <https://theprint.in/india/behind-modi-dr-tedros-smiles-in-gujarat-india-who-are-at-war-over-covid-deaths-covaxin/922586/>, last accessed 21-4-2022.

In 2022–2023, over half of the world's population abstained or voted against the UN first resolution on Russia's attack on Ukraine, a notable skew in subsequent resolutions and censures, and fragmented support for sanctions against Russia.⁴⁸ The juxtaposition of the EU's and US's non-consultative approach to Afghanistan, or Chinese aggression towards India, or active arming and funding of Pakistan, reveals an imbalance in the pressure for 'global solidarity'. India's stance has remain mostly unchanged since the beginning of the conflict. And despite their own rhetoric, US, Europe, and Japan continue to see India as essential.⁴⁹ This see-saw generates a selective perception of a hypocritical 'rules-based order', with 'Western values' or human rights used to castigate or sanction others, alongside questions of whether universities and think tank 'indicator and ranking wars' act as direct arms of state policy.^{50,51}

By early April 2022 in New Delhi, Ursula Von Der Leyen was arguing democratic values brought Europe ever closer to India.⁵² A month later in May 2022, technological innovation and industry matters were led by 'European-Indian shared values'. Prime Minister Narendra Modi was welcomed with enthusiastic handshakes and banquets, and long-term technology and trade partnerships, with new bilateral cooperation from Denmark to Germany, Nordic summits to France, on green energy, shipping, health, security, mobility and migration for professionals and students. In-kind Indian assistance to Ukraine continued. A year later, by April 2023, the UN was urging an approach similar to India's initial stance, that diplomacy was vital, that aggression needed to cease.

The multilateral system provides disproportionate power to some. The UN Security Council (UNSC) members have yet to seriously discuss reform

⁴⁸ The East African (2022). "17 African countries abstain from UN vote to condemn Russia invasion", <https://www.theeastafrican.co.ke/tea/news/world/17-african-countries-abstain-from-un-vote-russia-3735288>, last accessed 19-4-2022; Times of India (2022). "India, Pakistan, China among 35 nations to abstain from voting on anti-Russia resolution" http://timesofindia.indiatimes.com/articleshow/89955078.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst, last accessed 18-4-2022;

⁴⁹ <https://thediplomat.com/2023/03/india-japan-relations-out-of-the-shadow-of-ukraine/>, Last accessed March 24 2023.

⁵⁰ Minister for External Affairs Mr Jaishankar: "[...] I suspect looking at the figures, probably our total purchases for the month would be less than what Europe does in an afternoon," https://economictimes.indiatimes.com/news/india/indias-total-purchases-of-russian-oil-for-month-less-than-what-europe-does-in-afternoon-jaishankar/articleshow/90789179.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst, last accessed 22-04-2022.

⁵¹ The First Post "Why US 'sanctions threat' to India is counter-productive on China front, <https://www.firstpost.com/world/why-us-sanctions-threat-to-india-is-counter-productive-on-china-front-10512601.html>, last accessed 22-04-2022;

⁵² <https://www.outlookindia.com/international/european-commission-president-warns-of-russia-china-no-limits-friendship-at-raisina-dialogue-news-193246>;; last accessed 27-4-2022; <https://www.timesnownews.com/india/pm-narendra-modi-inaugurates-7th-raisina-dialogue-european-commission-president-ursula-von-der-leyen-chief-guest-talks-about-russia-aggression-article-91077381>, last accessed 27-4-2022.

between acts of vetoing each other.⁵³ Nested measurement of unilateralism thus effectively demote ‘universal’ rules to other more realistic metrics that directly affect extant trade or national security. India is also located in a precarious non-democratic and terrorism-driven region made worse by consistent interference of UNSC members.⁵⁴ Case methodology thus requires computing divergences of industrial policies and trading choices versus national veto or abstentions on Ukraine resolutions, measures of power exercised by the US (or non-opposition by the EU to it) through chairing or executive membership of UN bodies. These include actions of the UNSC, UNHRC (human rights), UNHCR (refugees), or absence from the International Courts of Justice (or the U.S. third time re-entry into UNESCO).

The current multilateral system is thus a useful analytical case generator. Indian representatives have spoken on the problems of consolidated power in the UN Security Council, and the ‘weaponisation’ of UNHRC human rights discourse by the West. UNHCR too had had an uneven, arguably negligent, Indian subcontinent refugee record, prioritising Europe’s refugees. Moreover, the UN recognises terrorism against ‘Abrahamic’ religions (Christians, Muslims and Jews), but not against Hindus, Buddhists and Sikhs, and some UNSC members consistently veto the recognition or extradition of terrorists involved in Mumbai’s terror attacks.^{55,56}

UN multilateralism is further influenced by theocracies and theology-driven civil society.⁵⁷ “Overall, more than 70% of religious NGOs at the UN are Christian, where the Vatican enjoys a special observer status, as a state and religion”, [...] the study highlighted that Muslim NGOs are often represented through the collective of

⁵³ <https://aninews.in/news/world/us/unsc-needs-better-representatives-in-security-council-including-countries-like-india-unga-chief20230620045010/>, last accessed June 21 2023.

⁵⁴ Stewart Mr. Patrik. April 14 2022. “Does the UN risk becoming a second league of nations?” <https://www.cfr.org/blog/does-un-risk-becoming-second-league-nations>, last accessed 21-4-2022.

⁵⁵ Indian Express (Jan 21 2022). “UN should recognise phobia against Hindus, Buddhists, Sikhs: India”, Statement by India’s Permanent Representative to the United Nations T S Tirumurti to the International Counter Terrorism Conference by Global Counter Terrorism Council on January 18, <https://indianexpress.com/article/india/india-un-hindus-buddhist-sikhs-phobia-tirumurti-7734172/>, last accessed 20-4-2022.

⁵⁶ “India’s Permanent Representative to the UN Ambassador T S Tirumurti said in the UN General Assembly that India hopes the resolution adopted “does not set a precedent which will lead to multiple resolutions on phobias based on selective religions and divide the United Nations into religious camps.” <https://www.news18.com/news/india/india-is-concerned-over-elevating-phobia-against-one-religion-to-level-of-international-day-tirumurti-4878509.html>, last accessed 20-4-2022.

⁵⁷ Ibid. “Among the most active religious NGOs are Catholics, Quakers and the Baha’i faith, which have some of the highest number of meetings with UN diplomats.” And “It also warned that lack of funding is limiting other religious groups such as Hinduism and Buddhism, which are under-represented at the UN. The number of inter-faith and New Age NGOs is still very small.[...]” Carrette, Jeremy R. (2017) *Hindu and Buddhist NGOs and the United Nations*. In: Carrette, Jeremy R. and Miall, Hugh, eds. *Religion, NGOs and the United Nations: Visible and Invisible Actors in Power*. Bloomsbury Academic. ISBN 978-1-350-02036-8;

over 50 states in the Organisation of Islamic Cooperation, rather than civil society NGOs, which are mostly Catholic.”⁵⁸ EPE needs a sober view of these aspects of multilateralism and multipolar morality. Future ‘global goals’ and ‘global resources’ will also be shaped by the growing power of Indian industry, e.g., vaccines, energy alliances, civil aviation and defence.⁵⁹

3 Development's institutional variety: intermediate approaches

3.1 Co-evolution and combinatorial methods

The brief examples in the prior section emphasise the assertion that institutional variety, the ‘many ways of doing things’, need not be limited by the histories of industrialised European nations. Processes of economic change such as collective action, coordination and regulation costs, property rights, improvements in technique in mSMEs and the rise of the ‘Chandlerian’ business firm, have sharply divided the sub-schools of institutional economics. Fundamental political economy ideas of science, workmanship, techniques, solidarity, and inspiration of post Enlightenment emancipation have been carried through European shop-floor politics, European ‘World’ Wars, and ‘Western’ civilisational ideas of democracy and moral philosophies. There is thus a new burden placed on better methods in EPE to match what is observable, to refine theory, and to discard those assumptions that have proven either unverifiable or politically mischievous.⁶⁰ This is hardly to deny the excellent contributions of the West but to focus instead on future Indo-European exchanges with diverse scholars.

Scholars such as Veblen and Hodgson in multiple essays have recognised that economics cannot be universal. Neo-Marxian, neo-Schumpeterian (US included) and Regulationist approaches build on European history, theory, and evidence, especially combinatorial frameworks about which institutions and organisations ‘should’ matter. The Original Institutionalism and Development scholarship share similar traits.

Gerschenkron (1962) indicates late industrial states fill the role of missing institutions in the mix: in France, as credit, Russian banking, etc. Yet late industrial and post-colonial states are highly variegated by state role. Arthur Lewis (1954) argues

⁵⁸ Maria Tadeo Jan 1 2014. “Christianity dominates United Nations, concludes study” <https://www.independent.co.uk/news/world/politics/christianity-dominates-united-nations-concludes-study-9032598.html>, last accessed Jan 1 2022. See also Baumgart-Ochse, C., & Wolf, K.D. (Eds.). (2018). Religious NGOs at the United Nations: Polarizers or Mediators? (1st ed.). Routledge. <https://doi.org/10.4324/9781351111232>;

⁵⁹ https://www.ndtv.com/business/time-has-come-for-airbus-boeing-to-set-up-jet-assembly-plants-minister-3888682#pfrom=home-ndtv_business_trending, last accessed March 24 2023.

⁶⁰ An example is the theft of the “Swastika” a holy symbol for good fortune in all Dharmic faiths (Santana Dharma/Hindu, Jain, Buddhist, and Sikhi), also used by Native Americans and many other ancient traditions. The Nazi debasement is the ‘*hakenkreuz*’ (hooked cross).

for former colonies and institutional features such as between family and work, with social patronage ties. Sanjaya Lall (1982) analysed the distinct rise of India's multinationals' technological capabilities built through joint-ventures and technology transfer. The Ayres and Veblenian contributions on industrial progress and 'lag', despite North Atlantic roots, may be more promising (Srinivas 2020; 2021a, b). Similarly, 'social capabilities' may have different cultural foundations for which the state substitutes (Ayres 1952; Gerschenkron 1962; Abramovitz 1986; Klein 1977; Adkisson 2010; Almeida and Goulart 2020). Hirschman (1958) extended the analytical frameworks of such capabilities in development projects and through 'exit, voice, loyalty' where cultural traits too might be anticipated. This industrial institutional variety (Srinivas 2018; 2020) because of combinatorial approaches (Amable 2000) cannot guarantee whether dynamism leads to fragmentation or cohesion (Papaioannou and Srinivas 2019, Robert et al. 2017). These analytical gaps raise useful questions for economics on the continuity of resources, asset obligations, and diversity of organisations in different industrializing contexts.

Analogies exist in institutional economics itself. Economists such as Edith Penrose recognised that organisations and their knowledge boundaries had other evolutionary explanations and that the transactions cost explanation for firms, internal resources, and external boundaries could not be universally explained outside the specific context of 'resources' and their use. That firms can be differentiated theoretically from markets implies that dynamic reorganisation of resources is unevenly taking place in different types of organisational models each using knowledge: "The essential difference between economic activity inside the firm and the economic activity in the "market" is that the former is carried on within an administrative organisation, while the latter is not" (Penrose 1959, 15). Thus, growth is not merely replication and scale but rather dynamic reorganisation of skills and new administrative plans, boundaries and the people who govern them (see also Turvani 2007).

Some aspects of culture and religion are rightly accommodated into new institutional economics at the 'meso' level of family networks (e.g., Jews and Jains and their dominance in the global diamond industry, Richman 2006). These provide case-based "community" explanations of trust, transactions costs, and the structure of firms. Similarly, Hindu, Jain, pastoralist or other stewardship communities such as the Chipko Movement or Bishnoi tribe offer unique ecological worldviews (e.g., Jain 2009; Raina and Dey 2020).

Precisely for this reason, the history of industries and techniques is intertwined with mercantilism or colonisation, and sometimes with erasure of indigenous knowledge if not the populations themselves. This is an essential point of analytical departure of European EPE from others. Indeed, the U.S. rise too, as an industrial, expansionist power with formidable technological capabilities, requires context: the rise of some technological capabilities could be explained as a function of the early genocide of Native Americans and takings of their land, the later reliance on the slave trade, and on more or less indentured immigrant Asian labour. 'Freely' available land and labour were recognised by Habakkuk and others (e.g., Temin 1966), especially the U.S.'s unique land availability to labour ratio and its subsequent, distinctive, labour-saving technological advance. Similarly, China, India, Egypt, Iraq, Iran and other ancient civilisations will have to frame their contemporary industrial

change against coloniser rules and customs, and draw from the prior 'layers' of their own complex administrative, scientific, literary gains or their military expansionism, extensive urban habitations and artistic 'golden' periods before Europe's global rise. The slave trades of parts of West Asia and North Africa are well documented. Likewise, 'modern' inconsistencies of industrial histories deserve explicit attention: e.g., Europe's organised religion and war correlates with distinct industrial outcomes, or Communist-led industrial development, which has historically been antithetical to democracy, free speech, or human rights, but nevertheless technologically sophisticated.

Just as a traditional economic critique of a List-ian 'kicking away the ladder' limited the institutional options for those coming 'later' (Chang 2002), a new, reinvigorated EPE conversation is necessary. The "Third Italy" is closer; it accentuates the tensions in economic methodology where social norms require considered explanations beyond 'labour' (Piore 2006, 8). He argues that 'casual' conversations with tour guides on factory floors, observation of pride in accomplishment, social standing, require a dismissal of routine macroeconomic labour market explanations in favour of much more micro-economic and specific, intergenerational knowledge and technology adaptation explanations.

Are European explanations of small family businesses in economic development then translatable outside of the specific industries or geographies studied? Could hierarchical social practices nevertheless be efficient apprenticing systems? Can technical and civic practices in, say, construction or weaving, generate diverse weaving skills, yet slow social change? Under what circumstances are inter-generational social policies 'progressive' if resistance to merit or competition become political hurdles?⁶¹ How are new types of trust and investment in business networks for regional industries built outside family or wider clan?

Esping-Andersen (1999) commented on how culture or gender roles influence corporatism or other types of Austrian and German welfare regimes. Similar complexities and inconsistencies mark India's "reservation" social policies of education and jobs for 'low caste' and other disadvantaged populations. Important policy design gaps and skill hypocrisies continue: should children be forever responsible for perceived sins of their forefathers? When and how should generational quota privileges cease, despite noble intentions for the 'reserved' victims? How do high-income, powerful bureaucrats or professional and business families continue to 'deserve' multiple reservations merely based on a 'backward' identity? Wealthier 'low caste' Hindu

⁶¹ Indian Chief Ministers, political parties, and bureaucrats are accused of distributing education and jobs as political largesse to ineligible candidates. "Reserved" quotas by identity for faculty, public sector jobs, and student categories may go unfilled even where General Category ("upper caste") candidates await an opportunity with far higher marks in hand than others. This raises difficult questions for Indian society on the quality of future Indian skills, products and essential services (teachers, doctors, engineers, etc.), as well as stigma of quality faced by hardworking 'reserved' candidates. IITs case: <https://economictimes.indiatimes.com/industry/services/education/exempt-iits-from-reservation-in-faculty-recruitment-expert-panel/articleshow/79783129.cms>, last accessed April 3 2023; <https://www.indiatoday.in/education-today/news/story/jee-advanced-2021-cut-off-marks-opening-and-closing-ranks-top-iits-nits-and-other-engineering-colleges-1865515-2021-10-16>, last accessed April 3 2023; <https://www.nature.com/immersive/d41586-023-00015-2/index.html>, last accessed April 3 2023.

Dalits, even some who may have converted to other religions, and the so-called “creamy layer” in ‘Other Backward Caste’ Hindus, are not removed from accessing benefits no matter their economic rise; “General Category” of “upper castes” (paying for the alleged sins of select ancestors) have to fight for employment and education seats, with much higher marks required of them and no quota end in sight. Economically Weaker Sections (EWS) could help some, but despite high marks, absent or squeezed quotas, some leave the country or move into sub-optimal work.

European Indologist biases in analysing Indian hierarchies may have derived from German and wider European origin myths or presumptions of rationality or superiority, and Indians sourced these in turn especially in English, many using it to their own domestic political advantages.⁶² A deeply flawed conflation of ‘race’ and ‘caste’ has recently emerged in rhythm with the U.S.’s Black Lives Matter (BLM) movements. Many scholars too use ‘upper caste’ without being able to define ‘up’ or ‘down’ or explain regional variations within Indian states or explain income and assets of either group, or those ‘in-between’. While discrimination or violence of Hindus on Hindus is well documented, not so Muslims towards Hindus (and Dalits), neither open hate groups against Brahmins or others, discrimination too within and among ‘Backward castes’, within Christians, Sikhs and Muslims themselves. Also poorly documented is the speed of religious conversion, especially under false pretenses and allurements, most unreported for reasons of ‘sensitivity’ and votes, thus ignoring genuine victims of all religious and social groups, and slowing new hypotheses of evolution or economic impact. Separated ‘upper’ and ‘lower caste’ churches, *gurdwaras*, mosques and social activity continue to exist for many, some new converts may identify as ‘Christian dalits’, ‘Muslim dalits’, with continued discrimination claims for ‘reservation’ to accrete substantial social policy benefits while simultaneously claiming ‘equality’ within such religions for conversion to continue. Rising Indian voices across social groups are calling for ‘real secularism’ and religion-blind penal codes, one law for all. This evolutionary political economy may benefit from Hirschman-like formalisms such as exit, voice, and loyalty, extensive new surveys and interviews, or use of game theoretic, or other methods.

It would be unhelpful to assert that all of India’s social faults are externally fuelled, its political leaders and bureaucrats are often sufficient. However, these Indian idiosyncracies arguably come from an unresolved, violent past and current power struggles, deracination through long-standing, self-serving colonial education, India’s own political parties and their ‘vote bank’ aspirations, compounded by

⁶² They argue that German Indologists and select Indian historians on Aryan race theories (now debunked) on Sanskrit, shaped views of India, and superposed Christian (including Lutheran) views on Buddhism and the other *Dharmic* religions:. They “[...] also trace the criticisms of Brahmanism back to their anti-Judaic and anti-clerical stereotypes in German Protestantism, particularly as they became salient in the Kulturkampf”. See Adluri and Bagchee ‘Woke Buddhas of Academia’, “https://www.academia.edu/53977629/Woke_Buddhas_of_Academia”

global academic and media censorship. These may constitute the water to which the proverbial academic fish is sometimes blind.

However, political correctness can also hide poor scholarship, absence of scholarly integrity, deliberate geopolitical mischief, the unexamined nature of research funding, skewed incentives to address intellectual discomfort with data discovery, or fear of punitive group consensus and disfavour. Open thought experiments are thus useful, including acknowledgement that some topics remains outside, even beyond science, or fit awkwardly into the fads of scientific temperament, some indoctrinated as social science taboo subjects. Even famous scientists are hardly exempt from bias. Richard Dawkins's credentials have been tarnished this past week by his swift remarks on an unchecked fake news story that Indian school books were removing evolution from their pages.⁶³ Other scholarly debates continue about genuine debate in Indology.⁶⁴ [...] On bias of scholars, there has been active debate: "Academic anti-hinduism, however, is more than merely lamentable; it is positively perverse. The anti-Hindutva activism with which it is associated provides intellectual cover for what would otherwise be seen as transparently self-interested attacks by missionaries and Islamists."⁶⁵

3.2 Intermediate taxonomies and visual heuristics as case-selection methods

The more institutional variety is seen—from norms to rules—and more organisational manifestations, the higher the degrees of freedom and verifiable hypotheses of which permutations thrive or which might enrich society but are stunted (Srinivas 2020, 2021a). EPE can reflect on how theories of institutions and institutional change are linked to theories of economic development and knowledge organisation to explain technological capabilities, such that "[...] can differentiate products and processes (the outcomes) from their institutional explanations (their development pathway)." (Srinivas 2020). Alternate unit of analysis may be by nodes and networks of dynamism and divergence, and thus the need to work 'backwards' in economic and industrial history (Robert et al. 2017).

Thus, comparison construction requires some determination of the membership of sets, whether the membership is "clean" or "fuzzy" (Ragin 2000). A simpler set

⁶³ Dawkins's case. e.g. <https://www.firstpost.com/opinion/richard-dawkins-an-atheist-who-doesnt-really-se-he-still-bats-for-christianity-12705182.html>, last accessed June 7, 2023.

⁶⁴ Prof. Wendy Doniger is alleged to have refused debate with substantiated critique from well-known Indic scholar Prof. Bharat Gupt. E.g. <https://swarajyamag.com/longform/a-critique-of-wendy-donigers-portrayal-of-hinduism>, last accessed June 1 2023. Dr. Vikram Sampath of the Royal Society of Historians took US academics to court for their false claims of plagiarism in his best-selling book on Savarkar E.g. <https://theprint.in/opinion/vikram-sampaths-brutal-targeting-wasnt-academic-activism-it-was-antithesis-of-restraint/856183/>, last accessed June 1 2023.

⁶⁵ "Only 2% of each group claims that it is "not free" to practice its own religion.[10] If survey research really is a social science and hard numbers mean anything at all, these results offer seemingly conclusive evidence that religious minorities in India do not face systematic social hostility or government restrictions", see <https://quadrant.org.au/opinion/qed/2023/02/unholy-alliance-inside-the-campaign-to-pry-india-from-the-west/>. Last Accessed 10 April 2023

Table 1 India and China—'quick and dirty' iterative hypothesis generation for industrial development

Asian Nation	India (until 1947 included both current-day Pakistan, which in turn until 1971 included current-day Bangladesh)	China
Former European or other colony or provincial controls of trade (depending on the country (approx. 1700–1947))	Britain, Portugal, France, Denmark Dutch	Britain, German Empire, Russia, France, the United States, Japan, Italy, Austria–Hungary
Multi-religious democracy	Y	N
Long-standing technological capabilities and trade history, including sea-faring	Y	Y
Democracy for substantial periods of post-WWII	Y	N
Hindu majority population in some regions	Y	N
<i>Dharmic</i> influence for several hundred years (context and scale different)	Y	Y
Large Muslim populations in some regions	Y	Y
Communist rule	Y (1 state, Kerala coalition government through democratic elections, but CPI no longer national party, West Bengal no longer Communist)	Y (absolute, central party dictatorship)
Multi-lingual official regional development	Y	N (although multiple languages exist)
Multi-industry (diversified) industrial development	Y	Y
Examples of globally dominant or significant industries	Generic pharmaceuticals Automotive 'Traditional medicines' Aerospace	Generic pharmaceuticals Automotive 'Traditional medicines' Defence

of nested propositions can place Asian economies from India to Jordan, Japan to South Korea, Cambodia to Vietnam, Iran to Singapore, to generate alternate hypotheses of industrial transformation and specific scientific systems and technological capabilities from agriculture to health. A quick-and-dirty India-China 'iteration 1' contrast with select dimensions is shown below to generate discussion about how nation-states today face case construction challenges (Table 1).

Clarifications are consequently required of EPE's building blocks and methods. Firms are not only wedded to search; they must evolve to identify which types of knowledge can convert into proprietary assets in their own contexts. As Amsden (1989) has emphasised, this is neither costless nor inevitable. Elsner (2010) argues for explaining rigorously how the 'meso' level in analysis emerges and which can explain specific institutions and organisations. Larger economies, especially democracies, however buck any simple logic of 'meso' aggregation (see Elsner 2010 on small country cases). Deviations, defections from specific informal groups must explain significant path divergences or new norms of associational behaviour and rewards (Ibid).

Visual representation has potential to reveal degrees of institutional variety (IV) that could potentially aid case-construction. Three heuristics, offering contrasting implications for 'science' and technological capabilities are listed in Table 2 (Srinivas 2021a, b): 1= the Linear Model, 2= Pasteur's Quadrant, and 3= Scarcity-Induced Innovation. The linear model (LM) is especially influential from the U.S. rationale of WWII that defence investment results in economic growth. The Pasteur's Quadrant (PQ) exemplifies the European American view of different types of science from Bohr to Edison, only some of which are 'use' oriented. The scarcity-induced innovation (SII) heuristic suggests many more degrees of IV, only some of which solve urgent 'use' problems in these societies. In principle, kinship, *jati*, religion, language, or other social and skills groups can and do play a role in the development of distinct knowledge in transferable learning systems. How overlapping or exclusive these groups and networks are remains an empirical question for national contexts as in Table 1.

Both tables reflect the practical, measurable, chronological dimensions to institutional variety (IV) and the organisation of knowledge that must be deciphered. The further refinement of case selection and of 'intermediate methodologies' (heuristics, taxonomies and small *n* cases) is thus compelling in combining the two Tables

Ragin (1997) provides 5 specific types of case selection and comparison which a discipline has to resolve:

“(1) the problem of constituting cases (defining and delineating the class of cases relevant to a particular investigation), (2) the problem of studying the causes of outcomes which are uniform across selected cases (“positive cases”), (3) the problem of delineating and defining negative cases which can be compared with positive cases, (4) the problem of studying multiple paths to the same outcome (multiple conjunctural causation) and (5) the problem of accounting for nonconforming cases.” In all cases, the strength of case construction, reformulation as research develops, knowledge of causal conditions and conjunctural causation, all require in-depth knowledge of societies in order to then decide what representative variables are robust in explaining institutional change (Ragin 1997, 11). Such change is also chronologically bookended and thus cases are

Table 2 Institutional variety and the organisation of knowledge

Degrees of institutional variety (IV)	1 = linear model	2 = Pasteur's quadrant	Multiple = scarcity-induced innovations
'Direction' from organisation of knowledge to dynamism of economy	One, from Science to Economy	Implied formal or experiential public or private research organisations, exception scientist Peterson	Multiple 'directions'; no ex-ante preferred stakeholder organisations. Formal organisations only one type, and may skew development policy priorities
Emergence of technological capabilities or innovations	Assumed	In Edison's type	Technological capabilities or innovations is the focus area
Science	Only one type: 'modern' science	Multiple types of 'modern' science (basic, applied, 'use-oriented' etc.)	Modern science not per se the focus, diverse epistemological knowledge traditions relevant to development
Universities	'Basic Science' is the original hierarchy	In some cases, other types of science drive the legitimacy of universities in the hierarchy of knowledge	Universities are not essential to the framework. Knowledge and authority can originate from other sources
Problem-solving for development	Main driver is Science	Pasteur's type of 'use' Science is especially relevant	Formal/ 'modern' science may be the exception
Knowledge stakeholders other than industrial firms	Absent	Not discussed but could extrapolate	Essential to framework

nested in economic development in periods and also within periods. The more one knows of different periods or within periods, the more one is able to test hypotheses through better case construction in turn. Further, case-oriented approaches challenges variable-oriented research and could make it more rigorous by for instance, reformulating or redefining the sample set, revealing causal conditions, dwelling on complex conjunctural causation which variable-oriented research's analytic tools miss, simple ignorance of the cases and thus faulty probabilistic models, and so on. "It is still reasonable to hope, at a minimum, for greater appreciation of the special strengths of different ways of constructing social scientific representations of social life." (Ibid.)

Similarly, case theorists need to satisfy their problem orientation to objectively dissect the more or less convincing explanations and their building blocks (Piore 2006; Tilly 2004). But this is at odds which how normative theories situate agents and their own explanations (e.g. Friedman 1953; Machlup 1946). Tilly, a historical sociologist, recognises the detailed social tempo of events and agents: "Take the case of historical research, which some analysts treat as quintessentially interpretive, hence inaccessible to formalisms. That characterisation of historical research rests on a double misunderstanding: identification of historical research entirely with the collection of evidence, identification of historical analysis with the writing of narratives." [But] "As it happens, many other historians rush from sources to reasoned narratives without pausing to employ formalisms, or even to reflect very self-consciously on the logical structure of their arguments, hence on what the evidence should show if their arguments are correct.[...] History joins with social science when its organising arguments become explicit, falsifiable and theoretically informed. Formalisms cement the junction." (Tilly 2004, 5). Case-oriented researchers are then better able to situate analysis on outcome-oriented analysis, diversity and divergent paths and conjunctural and heterogeneous causation (Ragin 1997, 40).

Economics itself exhibits further ironies in such non-European case selection. Mill (Chp3, 3) eloquently described the importance of inductive cases and a sufficient minimum.

"[...] towards establishing a universal proposition":

"Why is a single instance, in some cases, sufficient for a complete induction, while in others myriads of concurring instances, without a single exception known or presumed, go such a very little way towards establishing a universal proposition? Whosoever can answer this question knows more of the philosophy of logic than the wisest of the ancients, and has solved the problem of induction." (Mill, *A System of Logic*, Book III, Chapter 3, 3).

The irony is two-fold: one, that Mill's political philosophy is rarely taught in college as a function of his family's own experience as colonial administrators in India, with civilising views of 'uplift' (see Smits 2008); second, Mill may have sourced from Indian thought but not acknowledged it, for reasons difficult to determine (see also Ganeri 1996, 9). With this, economics might have changed course and so too the consequences of the 'Indian case' for European political economy.

That indigenous knowledge systems, identities and practices, even formal universities and libraries, and prior skill investments were attacked or destroyed under

invasions, rulers or colonisers is not unique to India. Ancient societies after all developed public intellectualism and public values over centuries (Vaidya 2017). Ganeri (2009) for example disagrees on reason and values with Amartya Sen (2006). “The demonstrably global origin of traditions of public reasoning undermines any thought that the West has a distinctive claim upon liberal values, but also, just as importantly, it undercuts arguments that there are things called “Asian values” which are antithetical to ideas of democracy, secularism, and human rights (134–37). There are no “cultural boundaries” in the reach of reason or in the availability of values like tolerance and liberty (280)”.

4 Conclusion: EPE's non-European combinatorial possibilities

Exercising cautions with vocabulary and unwarranted claims (e.g., ‘populism’, ‘right wing’, ‘majoritarian’, ‘Islamophobic’ ‘Hindu Right’ or ‘fascism’) would signal scholars’ genuine commitment to sources of evidence and debate, and analytical curiosity about refining theory. For example, can Europe’s own diverse histories provide new impetus for scholarly periodisation of institutional ‘clocks’ and different measures and units of economic evolution? ‘Modern’ or ‘medieval’ European periods of technological capabilities sit poorly against ‘ancient’ *Bhārath*’s technology and skills whose evidence remains.

By markers of ‘modern’ constitutionalism and democratic progress, India is moving ahead. A low-income, ‘other backward caste’, non-Delhi politician Prime Minister Narendra Modi serves with the President of India Draupadi Murmu, a highly accomplished woman from the Murmu tribe. A former President Ram Nath Kovind was a Hindu Dalit, and a previous President Dr. Abdul Kalam, a greatly loved Indian Muslim physicist.⁶⁶ Sports icons cover all social groups and are merit-based, something education and public sector jobs cannot claim. FDI, record-breaking inward remittances and soaring digital transactions may not last, but they have been coupled with sizeable cash transfer welfare programs and other education, rail and road improvements. Amenities with life-changing benefits are growing, especially notable for low-income women and young girls: running water, cooking gas, housing, and perhaps above all, toilet building, launch of programs for cheap sanitary napkins and heightened efforts in some states for women’s safety, banking and education. For a population of its size, it is never sufficient.

Arguing that democracy is dying in India raises the burden of proof on those commentators who are silent on the legal lop-sidedness of Indian rights or on terror or other threats. Some citizens, even academics, openly deny the horrors of the past and present and lend acceptability and allegiance to India’s non-secular, legal, fiscal and cultural inequality. These are similar to contemporary European, Israeli, and US challenges to counter-neo-Nazis, ISIS supporters, or Holocaust deniers.

⁶⁶ PM Modi’s consistently has the world leaders’ highest ratings (approx. 75% approval ratings) in one global survey, e.g. <https://morningconsult.com/global-leader-approval/>, last accessed April 10 2023.

Understanding India may additionally offer new perspective on Asia, from Cambodia to Vietnam, Korea to Japan. India hosts most Buddhist holy sites: the Kushinagar corridor in Eastern Uttar Pradesh state is a vast infrastructure investment near the site of Gautama Buddha's last sermon and attainment of *Parinirvana*. Buddhist relics and a 100-party delegation with Buddhist monks arrived from Sri Lanka, 8 members of the Shanghai Cooperation Organization SCO, and from thirteen Asian countries with significant Buddhist populations.^{67,68}

Indian complexity is thus a methodological gift of sorts for EPE. Yet, practical as well as ideological challenges remain. Most Indian economics and social science departments offer limited theoretical pluralism on technological change. Academics and journalists (whether of Indian origin or not) base their work on primarily English sources, in a few metropolises, wealthier friends and colleagues, or a club of 'activist-scholars' whom they regularly interview. Few genuinely interact for long periods with ordinary Indians in their own languages or context or with scholars offering contradictory evidence.

Sub-national states (anywhere from 20 to 200 million) also provide a genuine departure for scholarship. Simple combinatorial heuristics and tests can track persistent warts and disruptions, forks in the road, incorrect guesses on knowledge assimilation, frequency of historical interruptions and unique organisations that revive and drive India's economy. It will require enormous intellectual efforts to challenge the received tenets of development on India. The country needs fresh eyes and genuine interest to honestly reflect on the country's history and contemporary dynamism.

India will hardly be the first or last word on nation-states, but inconsistencies in how the study of its technological capabilities or economic development is approached, can improve approaches to institutional analysis and EPE.

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⁶⁷ Hindustan Times. Oct 20 2021. "Kushinagar airport: Sri Lankan delegation of over 100 people to land first" <https://www.hindustantimes.com/india-news/buddhist-monks-to-land-1st-at-kushinagar-international-airport-after-inauguration-101634705598723.html>, last accessed 01-05-2022.

⁶⁸ Sifra Lentini. Dec 21 2021. "The SCO's shared Buddhist legacy", <https://www.gatewayhouse.in/the-sco-shared-buddhist-legacy/>, last accessed 21-4-2022.

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