

आपूर्ति 2022

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of Miranda House*



ACKNOWLEDGEMENT

Aapoorti would be unfurnished and devoid of the stature it holds without the prized efforts of numerous individuals.

Firstly, we would like to thank our Convenor, Ms Sutapa Das, and our Teacher-in-Charge, Dr Ravinder Jha, for their presence and guidance. Their helpful direction throughout the process was of immense value.

A special mention is owed to the Design Team for tirelessly working to capture the essence of the theme skillfully, in all its intended impact; Nandini and Ananya, Arthashastra's President and Vice President for their unwavering support and the Marketing Team for their dedication in promoting our work.

Integral to the creation of Aapoorti has been the time and insight of our distinguished interviewees, and our guest writers, especially, Dr Annavajhula J.C. Bose, whose vision and contributions throughout the years have constantly provided us with great encouragement. We are grateful to all our contributors and teammates who have worked with relentless focus on carrying forward this legacy even under the shadow of the pandemic.

And lastly, our readers for placing their trust in us. Each and every one of you inspires us to better Aapoorti every year with enthusiasm and perseverance.

With love and gratitude,

The Editorial Board

FACULTY ADVISOR'S NOTE



It is a great pleasure to introduce the 2022 edition of Aapoorti, the annual magazine of the Economics department of the college. We are happy to bring our present edition when Delhi University reopens amidst declining Covid cases and with students back on campus after almost two years.

The Editorial Board makes three contributions focusing on the issue of ethics and philosophy at work; donation and its utilization; and values of the art and its market in the light of technical innovation. The wide range of this edition incorporates research articles dealing with designing an efficient Covid vaccination model, performance-based state-level comparative analysis of the Mahatma Gandhi National Rural Employment Guarantee Act, 2005, and the burning global issue of the implication of the United Nation's Kyoto Protocol on Japan's carbon emission. As per our tradition, we incorporate interviews of three eminent economists like Noam Chomsky, MIT; Nishith Prakash, University of Connecticut and Ashwini Deshpande, Ashoka University. This year we also have guest contributions from the resource persons of the Competition Commission of India and various colleges inside and outside of the University of Delhi.

We are happy to experience the blend of academic devotion, hard work, and organizational and managerial skills within our students, without which the continuous development of quality of the magazine, in terms of extents of both the research topics and its economic analysis, would not have been possible.

I congratulate the team and the authors for their contribution and achievement during this difficult time full of uncertainty. Wish our readers a happy and enriching reading.

Sutapa Das

Faculty Advisor, Arthashastra

TEACHER-IN-CHARGE'S NOTE



Congratulations to Team Aapoorti for bringing out a brilliant issue. The team has put together a series of well researched articles reflecting a wide spectrum of views. Over the years, the journal's focus has shifted to the foundations of the current debates in economics. The theme of the current issue, Ethics and Philosophy, recognises the fundamental contradictions in the epistemic basis of economics. As Amartya Sen has emphasised, the concept of economic development, without values and ethics, is an ill conceived project. I look forward to reading the journal.

Best wishes,

Ravinder Jha

Teacher-in-Charge, Arthashastra

EDITOR'S NOTE

As we conclude the twelfth edition of Aapoorti, we can't help but look back and feel a sense of immense pride in the journey and the growth. The past eleven years have moulded the Editorial Board into an open space for discussion on the ideas and convictions of the young minds of the department, and an avenue to refine and pen down these thoughts.

This past year was a trying one and posed unprecedented challenges as we tried to cope with the revert back to normalcy while still dealing with the consequences of the pandemic. We are grateful to our team for not only consistently producing thought-provoking and compelling content, but displaying commitment in undertaking all tasks, even under the circumstances. The team's, particularly our Coordinator, Ashmita's, efforts for running the extra mile to materialise our endeavours has been an integral component in the making of this journal.

This year the Editorial Board chose the theme - "Ethics and Philosophy". Normatively, economists try to understand how people make decisions by conducting a cost-benefit analysis, in which a value framework is implicitly adopted. Different value commitments can lead to the same item being considered a cost from one perspective and a benefit from another. Three important ethical questions that loom over economic decision-making are - what is the standard of "good", how does one establish that something is "good" and who should be the beneficiaries of the "good". In an evolving world, where more and more importance is being placed on the repercussions and the reverberations of our actions, such considerations become essential, especially in matters of public policy. Thus, our understanding of economics is incomplete without its ethical and philosophical aspects.

Through our in-house papers we have explored sub-topics of our theme like modern art, work ethics, and charitable giving in hopes of adding a fresh perspective to economic thought. Our interviewees, Noam Chomsky, Nishith Prakash and Ashwini Deshpande, who we were fortunate enough to interview, too enriched our purpose by speaking on contemporary issues of the political environment, labour economics, discrimination and Covid-19. In this edition you will also see our guest contributors delve into topics such as vaccination drives, public policy and environmental protocols, among others. We believe there's something in this edition to cater to the likes of every economic enthusiast out there.

Every year we work on the journal, determined to do our best and give our readers the most informative and enjoyable experience possible. Here's hoping our readers enjoy the twelfth edition of Aapoorti!

Warm regards,
Devika and Shreyanka

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Team Aapoorti



EDITORS' DESK

PHILOSOPHY OF ART IN THE 21ST CENTURY- AESTHETICS AND TECHNOLOGY

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Abstract

Art is valued and influenced by many things. It's a widely held belief that art depends on not one but a combination of factors such as artists, originality and quality of art, technology, information dissemination and so on. What defines art is also constantly changing and various innovations also affect aspects of the art market. Our focus in this paper is to do two things. One, explore how technology and the internet have changed the definition of art and art markets. Here, we delve into the key stakeholders in the art market—artists, consumers of art and art itself. Secondly, we discuss the philosophy of aesthetics and art. Lastly, we explore the relationship between the value of art and artists.

Keywords: Art, Digital Art, Philosophy, Demand, Art Markets, Art History

Background

The art market, like any other market, also depends on forces of demand and the patrons of art are the main demanders of art.

Thus, to understand how art was created and valued historically, we need to primarily look into who were the patrons of art. This is important because patrons were the ones who financially supported artists and provided the needed job security to artists. Beyond financial security, they also give artists exposure and societal validation. Therefore, an artist and his art is linked to the kind of patrons they have. Patrons can be an individual or a group of people—like aristocracy or religious groups and the motives of these patrons influence the kind of art they commission.

For example, during the Renaissance, rulers of cities like the Medici in Florence and the Gonzaga in Mantua wanted to portray themselves and their families as successful and so they were keen to be associated with heroes of the past, real or mythological. Similarly, even the wealthy people were keen to show their power, “refined” taste and wealth to bolster their authority. This is why wealthy families like the Medici family of Florence (a wealthy family in the banking industry during the 15th century) commissioned renowned art like Sandro Botticelli’s Birth of Venus 6), Michelangelo’s Tomb of Lorenzo de Medici, Duke of Urbino and Donatello’s bronze David. Such art was purposely built to be showcased publicly, to show the family’s stature and “rightful” owners of wealth. Thus art was created to communicate a message and not merely for “art’s sake”.

The way the art is painted shows their political purpose. For example, when Bronzino, the

Italian painter, paints Cosimo I de Medici—he is portrayed as Orpheus, a figure from Greek mythology who used his music to quell all living things. This served a purpose i.e use of the Orpheus myth was meant to resonate with the current moment in Florence. In Orpheus, Bronzino wanted to draw parallels with Cosimo; like the ancient Greek character, Cosimo had to carefully dodge a crisis by pacifying people as he had come to power as Duke of Florence at 17 in 1537 after a tumultuous period. To promote stability, he wanted images such as this one to prove he was “right” for the job.

The materials used in art such as gold leaves, silver inlays etc were expensive and hence artists needed money. Thus, patrons provided money. Furthermore, if a patron liked an artist’s work, they would always be employed. The painting by Bronzino ended up making him the preferred artist of the Duke. Similarly, other rulers would keep artists they liked in their courts, providing them job security for long periods. Payments didn’t include just cash but also tax breaks and titles, which gave artists a position in society. So, artists had many incentives to seek such wealthy and powerful patrons.

To be clear, we aren't saying that art wasn’t produced for the common people. There did exist painters like Neri di Bicci (a minor Florentine painter) who created a retail market in ready-made religious images which had far more accessible prices and were thus accessible to lower-income individuals. But most art was produced on commission. There also existed art for special occasions like marriages where they employed an artist to decorate a chest, some parts of a room, or a fine item of furniture in their new home. Relief plaques for churches in gratitude for a happy occurrence in their lives was also common for lower-income individuals.

Even with this scrape of accessibility that the lower-income individuals received, the art market continued to be dominated by the rich. A great example of this can be found in art auctions. In their paper, ‘A history of the art market in 35 record-breaking sales^[6]’ Christophe Spaenjers, William N. Goetzmann and Elena Mamonova trace 35 record-breaking art auction sales.

Year	£	Artist	Title	Auctioneer and location
1701	320	Dou	Interior with woman and child	Amsterdam
1713	1,095	Van Dyck	Rest on the flight into Egypt	Amsterdam
1733	1,105	Van Dyck	Rest on the flight into Egypt	Rotterdam
1771	1,410	Dou	Interior with woman and child	Amsterdam
1798	1,522	Rembrandt	The centurion	Coxe-Burrell-Foster, London
1804	1,680	Dou	Hermit in a cave	Paillet-Delaroche, Paris
1808	1,750	Dou	The evening class	Rotterdam
1811	5,250	Rembrandt	Shipwright and his wife	Christie's, London
1852	24,600	Murillo	Immaculate conception	Paris
1910	28,250	Hals	Portrait of a woman	Amer. Art Assoc., New York
1912	29,500	Mantegna	Holy family enthroned	Lepke's, Berlin
1913	44,000	Rembrandt	Bathsheba	Galerie Georges Petit, Paris
1919	54,600	Romney	The Misses Beckford	Christie's, London
1926	60,900	Romney	Mrs. Davenport	Christie's, London
1926	77,700	Lawrence	Pinkie	Hampton's, London
1957	104,630	Gauguin	Apples	Galerie Charpentier, Paris
1958	220,000	Cezanne	Garçon au gilet rouge	Sotheby's, London
1959	275,000	Rubens	The adoration of the magi	Sotheby's, London
1961	817,052	Rembrandt	Aristotle with a bust of Homer	Parke-Bernet, New York
1970	2,310,000	Velasquez	Portrait of Juan de Pareja	Christie's, London
1980	2,507,013	Van Gogh	Le jardin du poète, Arles	Christie's, New York
1980	2,997,403	Turner	Juliet and her nurse	Sotheby's, New York
1984	3,564,000	Raphael	Study of a man's head and hand	Christie's, London
1984	7,370,000	Turner	Seascape, Folkestone	Sotheby's, London
1985	8,100,000	Mantegna	Adoration of the magi	Christie's, London
1987	24,750,000	Van Gogh	Sunflowers	Christie's, London
1987	30,280,899	Van Gogh	Irises	Sotheby's, New York
1989	32,934,977	Picasso	Les noces de Pierrette	Binoche et Godeau, Paris
1990	49,121,762	Van Gogh	Portrait du Dr. Gachet	Christie's, New York
2002	49,506,650	Rubens	Massacre of the innocents	Sotheby's, London
2004	58,223,688	Picasso	Garçon à la pipe	Sotheby's, New York
2010	65,001,250	Giacometti	L'homme qui marche I	Sotheby's, London
2010	70,452,891	Picasso	Nude, green leaves, and bust	Christie's, New York
2012	74,003,394	Munch	The scream	Sotheby's, New York
2013	89,411,063	Bacon	Three studies of Lucian Freud	Christie's, New York

Their study reflects on the inseparability of art prices and tastes from wealth and power. They observe that the art market mirrors the output of alternation in the societal aura through economic transition. The effects of major historical events on the art market strive to strengthen their conclusion.

Unexpectedly, even The Great Depression and World War II influenced the art market and taste in their own ways. They brought the rise in popularity of various art styles like Impressionism – an art style which attempted to accurately record reality in terms of volatile effects of light and colour, and Post-Impression – which is both an extension and rejection of impressionism as it aimed to break free of its limitations of focusing on traditional ‘realistic’ subject matter but continued to adopt the pure, brilliant colours of impressionism. In this period, ‘exquisite’ taste begins to be characterised by an appreciation of complex and increasingly abstract images.

The period from 1957 to 2010 welcomed an astounding boom in art prices. As the interest of the public in art collection increased, art beat even the recovering equity markets in its valuation from mid-century forward. With a second wave of globalisation hitting the art market during the same period, Japanese buyers set three records for auction sales and art began to be recognized as a financial asset.

The true eliteness of art auctions began in the late 20th century when auctions became glamorous events for high society, while in the decades before they were rather dull events for art market professionals. This was a significant evolution that turned the auction room into an arena for one-upmanship. Auction houses started working towards being recognised as luxury goods companies rather than a simple middle man in the art market. Some of the record auction sales of this period testify to the rise of social aspiration; wealthy people often used their acquisition of an ‘exquisite’ piece as social entrée. As records were set with increasing frequency, most museums were also priced out of the market.^[5]

As fine art grew more valuable, it was recognized as a highly portable store of value – and the auction as a public means of creating that value. In this process, the record-breaking auction prices started to have much broader economic consequences – increasing personal asset value through a ripple effect. For example, when a van Gogh painting sells for a record price, all van Gogh collectors mark up their personal asset value, making art a great investment in simple monetary terms.

Essentially, in economic terms, art is a multifaceted good. It can be classified as an ‘experience good’ that has to be tried and tested before its true quality is revealed, an ‘information good’ whose value is tied to an idea of its worth and even a ‘consumption good’ that adds to the consumer’s social capital. To delve deeper into the concept of art and its valuation, we must not isolate art to just be an economic good and the definition of art beyond its economic characteristics can only be understood through aesthetics and the philosophy of art.

Aesthetics and Philosophy of Art

‘Aesthetics’ is known to be the philosophical study of beauty and taste. This definition of aesthetics might mislead you into thinking that aesthetics is the same concept as the philosophy of art. However, they’re just closely related, not the same. Philosophy of art is concerned with the nature of art and the concepts in terms of which individual works of art are interpreted and evaluated.

The concept of aesthetics and art first originated in the eighteenth century. During this period, the study of the beautiful and the sublime in nature, art, and other human artefacts became a distinct philosophical topic, written about in works wholly devoted to that subject matter. These works focused not only on the features of objects that make them beautiful (sublime), but also on our reaction to these features and the properties of the human mind that make these reactions possible. They attempted to characterise the judgments that an object is beautiful and the kind of value being ascribed to objects by such judgments. The philosophical topic came to be called “aesthetics” in the eighteenth century, courtesy of Alexander Baumgarten in 1735. But writings on distinctly aesthetic topics go back to the beginning of the century. The system of fine arts also came into existence during this period and thus, art began to be valued explicitly in aesthetic terms.^[14]

One interpretation of the concept of aesthetics would be to stick as close to the eighteenth-century definition—to confine art to be as ‘beautiful’ and ‘sublime’—as possible. However, the decades of changes in art have made it impossible to stick to that narrative. Art can be characterised as grotesque and morbid and appreciated and art can also be found in mundane things like everyday items that aren’t necessarily attractive. There is no uniquely correct conception of the aesthetic. Like art, it is truly an abstract concept that depends on experience and interpretation.

Philosophy of art deals with more constitutional art questions—What is art? What kinds of objects are artworks? Do artworks have meanings, and are these determined by the artist's intentions? In line with this line of thinking of philosophy of art, in the later sections of this paper, we try to unravel how technology has changed what art is.

Present

It's evident that art has no meaning as the definition itself is constantly changing over time. We'll see how the internet and technology have upended what's considered art and enabled democratisation of art. It's important to talk about technology because newer technology is making us question the ethics of art creation and the philosophy behind it.

The art world has always had debates about digital art and whether it's true art or not. In many ways, digital art challenges the underlying philosophy of traditional art. Computer art users differ from the audiences of traditional art, members of these audiences experience and interpret stories, images, and songs, but computer art users do more- they appreciate works by generating their displays.

Next is the interaction. People appreciate a famous artist's presence in addition to the performance itself. For example, people like the theatrics and fashion of Freddie Mercury in addition to his singing. However, in digital art, the artist is not part of the interactive experience. Here, the interaction is between the display and the audience. Further differences are that a performer uses his knowledge of work to generate a performance out of it whereas a computer automates display for audiences where they can discover work by interacting with the display. Digital art is said to be “more forgiving” to the artists as mistakes can be undone quickly which is virtually impossible in a painting or theatre performance. Conversely, artists say that mistakes

and blunders actually add unique appeal to the art and convey the artist's creativity. However, the process can become part of the appeal of traditional artwork. The layers used to cover mistakes seen in older oil paintings, for example, provide a certain quality that has collector appeal. Another difference between traditional and digital art is the ability to make multiple reproductions. The ability to easily mass-produce digital art is in contrast to the rarity that has impacted the price of fine artwork. Of course, this does not make digital art less creative but certainly impacts pricing and demand.

What's important to note is that digital art has democratised art which critics say augurs well for art itself. Art classes are more easily accessible by being cheaper. Tools are cheaper i.e a one-time purchase of a tablet is better than continuous purchases of art supplies (paints, brushes and canvases). This kind of art can also be marketed and shared easily. Thus, artists overcome traditional elite spaces of art galleries and art collectors.

A widely agreed definition of art is "works produced by human creative skill and imagination". Art was supposed to show the skills of humans, things like brush strokes, the ability to mix and create colour palettes and so on. However, the coming of digital art has changed everything- from who's an artist, to what is art and the question of skill. This is where it's apt to talk about artificial intelligence and art.

Artificial Intelligence Art

Christie's made history when it auctioned a portrait in a gold frame. It was expected to fetch a modest price, somewhere between \$7,000 and \$10,000 but ended up being sold for a whopping \$432,500.^[15] What distinguished this artwork from others at Christie's is that this was the first art piece sold that was created by an algorithm. Christie's also became the first auction house to offer a work of art created by an algorithm.

Artificial Intelligence art refers to any artwork created with the assistance of AI. It can be a work created autonomously by AI systems or a work that is created as a collaboration between a human and an AI system. AI-generated art can include fully autonomous works—where people explore whether AI can be creative without human intervention—as well as human-AI collaboration. Such a technology has blurred the lines of creator and "what is art". Some even argue that AI must not be viewed simply as a collaborator but a creator in its own right.

This form of art has become popular over the years. In 2018, at Rutgers University's Art & AI Lab, a team created AICAN, which is a programme that is a nearly autonomous artist which knows existing styles and aesthetics and can generate innovative images of its own. The algorithm is fed 8000 images and at a click of a button, it will produce an image. The art created by AICAN became popular quickly around the world and its first piece offered for sale sold for a massive \$16,000^[7] at an auction in New York. The work by AICAN was exhibited in venues like Frankfurt, Los Angeles, New York City and San Francisco, with a different set of images for each show.^[7] People who saw the artwork at these auctions couldn't tell the difference- 75% couldn't. The creator of AICAN, professor Ahmed Elgammal wrote in an article "They(people) didn't simply have a tough time distinguishing between the two. They genuinely enjoyed the computer-generated art, using words like "having visual structure," "inspiring" and "communicative" when describing AICAN's work."^[7] This makes it clear that art generated by AI is good on quality but forms questions on who's the artist and so on.

So what's the philosophy behind why such artwork is popular? AICAN's creator feels that it can be explained by a theory proposed by psychologist Colin Martindale. The theory goes that many artists seek to make their works appealing by rejecting existing forms, subjects and styles that the public has become accustomed to. Artists seem to understand that they're more likely to arouse viewers and capture their attention by doing something new. Basically, the theory says that new things are interesting which is what makes such art popular.

Similarly, like Artificial Intelligence art, many other art forms like Cyborg art (an art movement that creates and adds new senses to the body via cybernetic implants to create artworks) have brought many questions about the art world.

Next, we delve into how new technologies have also transformed art and the art world. Here, we talk about Non-Fungible Tokens which are popularly known as NFT's.

Non-Fungible Tokens

Perhaps, the biggest way that NFTs have changed the art world is art ownership. Since NFTs are financial instruments, you can divide an NFT into fractions and sell it as shares. If it goes up in value, so will the shares. Many companies already doing this say it is a way to democratise art ownership and investment. For example, in a complex, incentivized sale that happened in early December, more than 28,000 buyers spent a total of \$91.8 million to acquire 266,445 "shares" of a digital work called "The Merge".^[11] You can also mint physical works as art. Anyone around the globe can access this art as opposed to traditional markets.

NFT's also make the artwork more accessible as compared to traditional art markets. This accessibility is not only for art buyers (as mentioned above) but also for art creators. Many NFT artists are children who have earned thousands of dollars from creating this art. This world also facilitates easier selling for artists.

It also creates new streams of income for digital artists in the following ways.

- By creating a digital copyright, artists can now track their distribution and viewership. For example, if it's an image on google, you can receive money for the number of views it makes. Similar to a youtube video but think of it extending to the entire internet. This is because no matter how many copies of that image are available on the internet, if you own the NFT for it, it's certified as yours.
- Because of complete ownership, artists reap the full benefits of their labour.
- Artists can surpass traditional markets and sell directly to buyers, without paying any remuneration/commission to art museums or art dealers. You don't have to build relationships amongst the art worlds but can sell directly.

Therefore, we see the ways newer, emerging technologies democratise the art world and remove monopolies with each new invention.

Accessibility and Technology

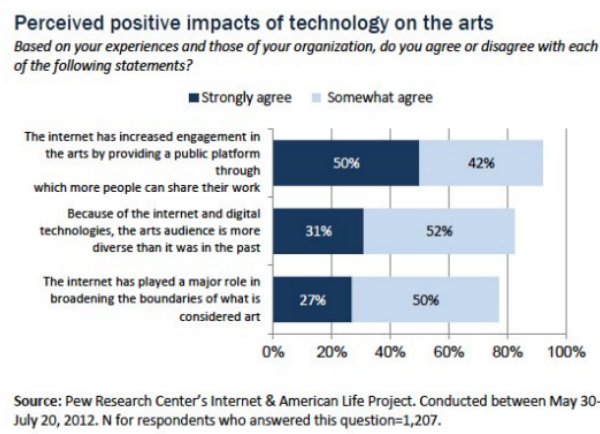
It's no doubt that the internet and technology have improved the accessibility of art; like many other things have been accessible as well. While we touched upon this idea in the previous section, we'll briefly go through how technology has impacted art accessibility.

The art market has changed due to technology and the internet. Art is being sold on sites like Etsy or artists can even be contacted directly through Instagram and Facebook, instead of going through an art dealer or art gallery. Certain innovative startups also have the Try Before You Buy option which lets you try or rent art before you buy. Social media sites are particularly helpful for newer artists and artists belonging to minority backgrounds.

Museums, art galleries etc also have visual tours which are helpful for buyers who cannot necessarily visit the museums physically or don't have an understanding of art. For example, Google Arts and Culture- has content from over 2000 leading museums and archives. It's an interactive website by Google that features 360 videos for viewing where you can virtually visit any gallery/museum partnered with Google. Many famous galleries and artists are partnered with Google. Therefore users have a plethora of collections. Anyone can set up a virtual tour of their gallery. A virtual presentation of art also allowusers to experience art in different formats- video art, a livestream, a painting, a play etc.

Technology has also helped art lovers with disabilities to experience art. While museums allowed blind people to touch/feel sculptures, technology has taken this a step further through a variation of 3-D printing. The process involves a computer program converting the 2-D image of the painting into 3-D data where a machine sculpts a bas-relief of the image into a 5-by-10 feet substrate. The digital image is printed on top of the relief. The 3-D painting now enables people with sight impairments to experience it.^[12] Even when it comes to creating art, technology has helped artists with disabilities. For example, the University of Regina created a digital device that tracks eye movements and can use those movements to create drawings. This technology is currently being used to help empower children with disabilities.

Many stakeholders feel that overall, technology and the internet has been a good impact on art accessibility. In a Pew research study conducted in 2012, the arts organisations represented in the survey agreed with the notions that the internet and social media have "increased engagement" and made art a more participatory experience, and that they have helped make "arts audiences more diverse." They also tend to agree that the internet has "played a major role in broadening the boundaries of what is considered art."



How much of the value of art is related to the artist?

Art has been known to spark emotions and display unspeakable nuances of everyday life that leave the audience irrevocably touched. A lot of credit behind this evocation of sentimentality can be attributed to the artist behind the piece of art. Several parallels have been made about artists being 'parents' of their artwork.

In common parlance, artists may speak of their creations, artistic or otherwise, as 'my baby' and may experience loss or relief when these art pieces reach their final and complete state, as if the 'baby' has matured and left home. It is this great emotional significance of art—for both the consumer and the creator—that uncannily affects its valuation and makes it a unique good.

Emotions are an essential element of philosophical theories. Over the years, various philosophers have debated about the sort of thinking and mindsets emotions reflect. However, all of them have agreed on the fact that emotions are motivators for actions. Behavioural Economists have taken this insight into consideration and released several theories about how consumers buy products based on their emotions and not 'rationality.' The same can be said for art pieces.

Consumers all over the world find eclectic pieces of art valuable because they find some emotional attachment to them which transgresses any monetary rationale they might have for making (or not making) that purchase. In a way, this emotion-related monetary value (which can't be estimated precisely because of its subjective nature) can sometimes be attributed to the creator of the art piece as they pour so much of their emotions into their art which the audience can relate with. We see this as one of the ways in which an artist contributes to the valuation of their art piece but is it the only way?

Some other ways in which artists contribute to the valuation of their art pieces are peak periods and direct association.

Peak periods are when the artist is experiencing high success in the market. Works curated in this particular period could possess a greater value than the works produced during the rest of their career. "So, say a Raza of the late 80s and 90s might be the most valued because that was his golden period whereas a Souza of the 60s/70s might be much more valuable than a later Souza. Artists eventually have a golden period within their own trajectory which might mark their best period,"^[8] explained Shireen Gandhy, Director of Chemould Prescott Road to Architectural Digest.

Direct associations refer to both the reputation of the artists and the past sales of their work. The reputation of the artist—their name being attached to the piece—makes the piece more attractive and accessible to interpret to the public. Moreover, auction houses work closely with the artist and take into consideration past prices, the new work and its physical attributes and then put together a valuation for every single piece in the exhibition.

Let's talk of the famously anonymous graffiti artist, Banksy. After his steady claim to success over the past decade, Banksy's auction market has exploded over the past year. His top three auction prices have all been set in 2021. In the first seven months of the year, his work generated \$125.5 million on the block, making him the fifth best-selling artist, according to the Artnet Price Database. Notably, that total is almost as much as his work has generated at auction in all previous years combined. Can you believe this same artist sold his painting for \$60 dollars on the streets of New York in 2013? In 2013, Banksy began an experiment: he set up a stall in Central Park, New York and got a person to sell his original, signed artwork to passers-by in the park. Unsurprisingly, the passers-by didn't recognise the value of what was on offer, unaware of his reputation or success. Ultimately, only eight paintings were sold for a total of £263 – but their value is estimated at £140,000.^[10]

Rightfully, Gareth Williams, head of contemporary art at Bonham's, said the Central Park stall was a coup. "The fact that his paintings were original and were being offered at a tiny fraction of their true retail value, raises real questions about the perception of worth and the nature of art as commodity within the marketplace – something that the artist must be acutely aware of."^[10]

Therefore, the artist contributes to the valuation of art in many intangible ways that don't necessarily have an economic rationale but do have a philosophical significance.

Conclusion

In this paper, we tried to dissect the valuation of art in the 21st century both philosophically and economically. At first, we explored the demand for art and how it has changed over the past decades. In this section, we discerned that even as it has been influenced by multiple historical events, the art market has had people of the higher class as its loyal patrons but they aren't the only consumers of art. As much as art is valued as a 'good investment' in monetary terms, the consumption of art is also influenced by emotions, political motives and trends. We distinguished that the characteristics of art are not just limited to its 'beauty'. In later sections, we delved deeper into the philosophy of art and the state of art in the 21st century. To answer the question of how the internet and latest technology are modifying the philosophy of art we explored several different art forms—from NFTs to AI Art—and came to the conclusion that digital art is breaking the monopoly in the art market and democratising the art world. Lastly, as we head towards a future where art could be produced without any human input at all, we shed some light on the relationship between art and artists.

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WHAT WORK ATTITUDES AND ETHICS MOTIVATES GENERATION Z TO WORK?

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Abstract

With the oldest members of the newest generation entering the workforce, there is a need to understand their attitudes, expectations and inclinations towards money, leisure, ethics and other preferences, especially as their formative years were grappled with uncertainty. In an attempt to do so, we surveyed students and young professionals in the age group of 17-24 years. Consistent with existing research, we found that Gen Z places high importance on extrinsic rewards such as money and prestige but also observed discontent with the respondents' relationship to work, possibly owing to the era of 'hustle culture' and 'workism', which doesn't provide a flexible and healthy work-life balance, also crucial to the generation's expectations from work.

Keywords: Generation Z, work ethics, work values, hustle culture

Introduction

Generation Z, born between 1995 and 2008, or the digitally native generation is now entering the workforce, with the oldest of the cohort being about 24 years old. Typically characterized by their constant use of technology and social media, 8-second attention spans, concern about issues such as racial discrimination and climate change (or 'wokeness'), they're the most educated generation yet. Older generations tend to describe them as 'slackers', but they're more hardworking and ambitious than they appear. (Gelber, n.d.) Understanding their attitudes and expectations towards work is increasingly important as they are expected to make up about 27% of the workforce by 2025 (Chart: How Gen Z Employment Levels Compare in OECD Countries, 2021), are significantly different from previous generations and have witnessed both The Great Recession of 2008 as well as the Coronavirus-induced lockdown and financial crisis now, with normalized rampant uncertainty and high rates of unemployment.

The economic, social and political environment that a generation grows up in is said to define their outlooks, beliefs, values, inclinations, expectations and attitudes, distinguishing their characteristics from other generations who may have grown up under different circumstances. This can be ascribed to the 'Generational Cohort Theory', which explains the changes in traits across generations owing to important historical events and social changes in society which could include traumatic episodes like wars, sizable shifts in the distribution of resources, or significant ideological changes. Events that unfold during the formative years (till about age 25) rather than later years of individuals are especially consequential. As a result, individuals born during a particular time, and thus corresponding to the same cohort, will often share specific inclinations and cognitive styles. These effects are also assumed to persist over time. (Moss, 2016). These differences in attitudes and expectations also apply to the workplace and larger work culture, as each generational cohort brings its own set of values and inclinations, with the

potential of transforming the workplace, and also initiates new challenges for employers as they need to attract and retain these new employees.

Understanding Gen Z's motivations, attitudes and ethics at work involves looking at their cohort through the lens of the environment they grew up in and how it affects their notions of money, security, hard work, meaning etc. For instance, the uncertainty and instability-riddled environment of the last two decades is presumed to have made Gen Z more risk-averse and crave increased security and stability at work. Similarly, transparency and flexibility are also extremely important factors to them. They're also an entrepreneurial generation that likes to work independently and have absorbed the competitiveness of their times.

Literature Review

Generation Z work values: A cross-national analysis (Boer et al., 2021) compared work values of undergraduate students across four countries and found intrinsic motivation factors followed by the work value for stability to be the most important in a future job for Gen Z while the least importance was attached to the work value for leisure. The study suggests that a uniform corporate approach to managing global HR and work design is ill-advised.

The paper "Generation Z and its Perception of Work through Habits, Motivations, Expectations Preferences, and Work Ethics" (Bulut & Maraba, 2021) found that, "Generation Z have individualistic, entrepreneurial, and money-conscious characteristics at work, and they look for large scale companies that offer good salary and self-enhancement". Moreover, they were comfortable with and preferred diversity (of sexual orientation, gender) at work and looked for a sense of sensitivity about social struggles from their work environment. The ethical values of companies were important to them. Creativity, collaborative working, and work-life balance were also important factors.

The Workforce Institute at Kronos Incorporated published a three-part series of reports that surveyed 3,400 members of Gen Z across Australia, China, India and other countries to understand how their education has prepared them for the working world, their perceptions about the gig economy, and their views on how to be an employer of choice for the next generation. Almost two-fifths (36%) of Gen Zers believe they "had it the hardest" when entering the working world compared to all other generations before it, tied with the Silent Generation (ages 75-94), which generally began entering the workforce during or just after World War II. It was found that more than half of Gen Zers worldwide (54%) say pay is the most important consideration when applying for their first full-time job. Employee perks like free snacks and gym reimbursements are enticing, but traditional benefits like health care coverage, retirement plan, life insurance are preferred by a 2-1 ratio by Gen Z.

To get their best work, Gen Zers say they need direct and constructive performance feedback (50%), hands-on training (44%), managers who listen and value their opinions (44%), and freedom to work independently (39%). 1 in 4 (26%) Gen Zers worldwide would work harder and stay longer at a company that supports flexible schedules. Gen Z's appeal for flexibility comes

with a few actions they would never tolerate from their employer, including being forced to work when they don't want to (35%); inability to use vacation days when they want to (34%); and working back-to-back shifts (30%).

Despite record-high enrollment, less than half of Gen Z credits their high school (39%) or college (42%) education for preparing them to enter the working world. 1 in 4 Gen Zers say they are least prepared to handle negotiating (26%); networking (24%); speaking confidently in front of crowds (24%); and resolving work conflict (23%).

Generational Differences in Work Values: Leisure and Extrinsic Values Increasing, Social and Intrinsic Values Decreasing (Twenge et al., 2010, 1117-1142) found a decline in work centrality and work ethic consistent with a rise in leisure values over generations. At the same time, emphasis on extrinsic rewards such as money and status in younger generations was found to have increased. They also found a declining emphasis on intrinsic work values and social rewards indicating that younger generations are not necessarily searching for more meaningful work than the previous generations.

Multigenerational Differences in career preferences, Reward Preferences and Work Engagement among Indian Employees (Chawla et al., 2017, 181-197) found that the senior generations were more focused on movement in the hierarchy rather than on career aspirations as a result of being groomed in a period of negative job growth. Subsequent generations prefer the assignment of meaningful work that matches their career aspirations. The study found no intergenerational differences in reward preferences, all the generations consider a high pay package as a top motivator to work. They recommend that it is pertinent that MNCs gain a deeper understanding of the cultural nuances of the Indian workforce and the impact of these nuances on work attributes such as career preferences, reward preference and work engagement for better work environments.

The Monster Multi-Generational Survey, conducted by TNS found that Gen Z is motivated by the same top three job attributes as Boomers – health insurance, competitive salary and a “boss I respect”, having grown up during the Great Recession of the late 2000s.

Consistent with other studies, it was also found that Gen Z is the most entrepreneurial yet practical generation, with 76% believing that they are responsible for driving their own careers. Additionally, their Top Work Motivators were salary (70%), ability to pursue their passion (46%) and job security (32%).

According to a study ‘Welcome to Generation Z’ by Deloitte, authored by Karianne Gomez, Tiffany Mawhinney and Kimberly Betts, consistent with other findings, money and salary matter the most to Gen Z along with work-life balance, flexible working hours, and other perks and benefits. Unsurprisingly, the study also found that Gen Z does not form opinions of a company solely based on the quality of their products/services but also on their ethics, practices and social impact. Gen Z's preferred career development is to have diverse and entrepreneurial opportunities with the safety of stable employment, and they may offer more loyalty to

companies that can offer this. Gen Z is quickly becoming the most educated and debt-laden generation in history, so organizations that focus on investment in learning and skill development become more attractive to this education-oriented cohort.

The paper "Understanding the work values of Gen Z business students" (Maloni et al., 2019) found that a better understanding of student expectations by the faculty increased the chances of them being able to arouse interest and productivity in the students. Academic programs and career services can use these results to better serve their goals.

The paper "Leadership and Gen Z: Motivating Gen Z Workers and Their Impact to the Future" (Baldonado, 2018, 56-60) found that managers can use "increased responsibilities" as rewards for Gen Z workers because for them being trusted with responsibility was a good motivator. Gen Z was also sensitive to other rewards at the workplace such as "employee of the month" certificates or gift certificates, vacations etc. The paper further suggested the use of social media to engage with Gen Z workers as they spend a major portion of their time on social media apps.

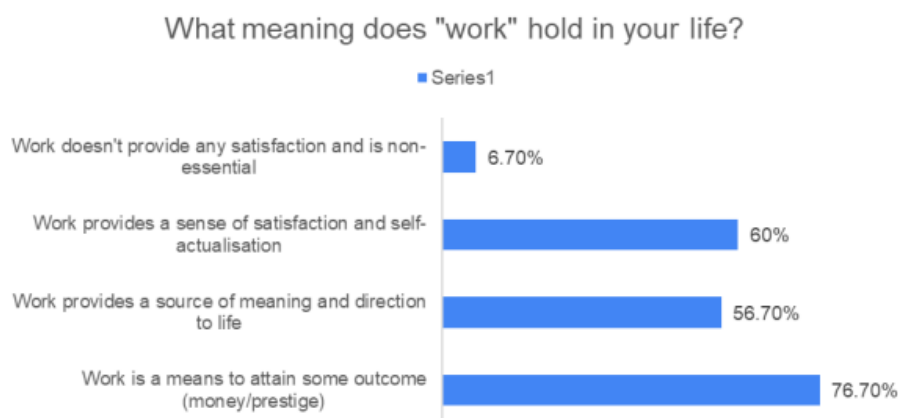
Methodology

The paper relied on both secondary and primary sources in order to get a holistic understanding of the research question. The secondary data was collected from the online database of Google Scholar. The primary data was collected by creating an online questionnaire through Google Forms. The questionnaire was then distributed to recent high school graduates, college-going students and newer job-market entrants (age group of 17 to 24 years). There were no restrictions placed on the cities or income backgrounds of the respondents. The answers to the questions were organised into either bar graphs or pie charts depending on the question type. The final sample size used for analysis was 60 respondents. The primary data results were analysed on the basis of the secondary data available and conclusions were drawn.

Results

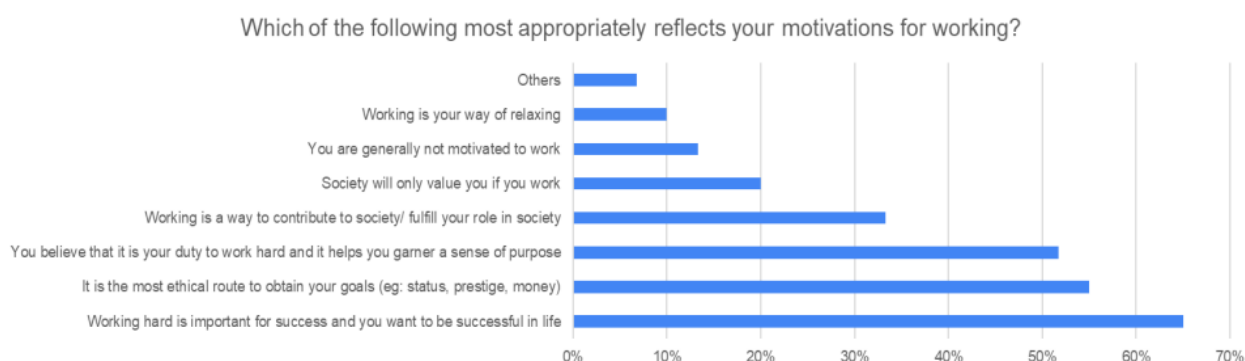
Work Values

Q1: What meaning does "work" hold in your life?



For a majority of the respondents (76.7%), work was "a means to attain some outcome (eg: money, good grades, prestige etc.)"; followed by "a sense of satisfaction and self-actualisation" (60%) and "Work provides a source of meaning and direction to life" (56.7%). Only 6.7% of the sample chose the option that "work did not provide any satisfaction and was non-essential". Hence, we can understand that for the large majority of the sample, work held some value.

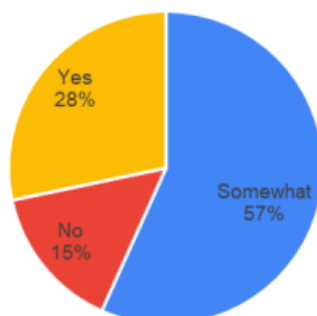
Q2: Which of the following most appropriately reflects your motivations for working?



"Success" was an important reason for a large section of the sample (65%), whereas for 55% it was the "most ethical route to obtain their goals (eg. Status, prestige, money, grades)". Other added responses included "just a feeling of listlessness comes in when there's no work, sort of related to the first option", "work is a way of making an impact in the world, also keeps my mind engaged, without which I would have no brain exercise", "wage cucking", "allows me to achieve my potential and learn as much as possible".

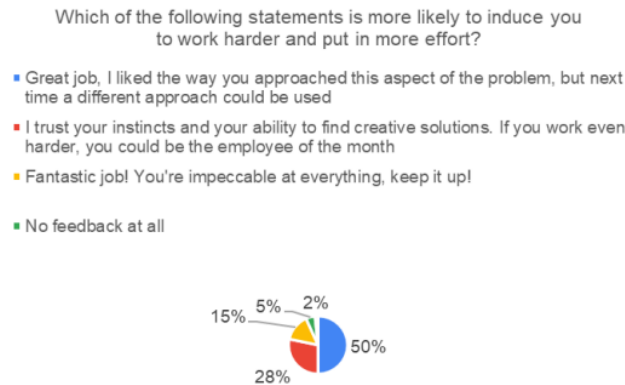
Q3: Would you say that your identity and self-respect are contingent on the quantity of work that you do?

Would you say that your identity and self respect are contingent on the quantity of work that you do?



For 28% of the sample, their "identity and self-respect were contingent on the quality of work" they did. 57% of the respondents chose "somewhat" and only 15% chose "no". This might indicate that the large majority of the sample relied on their work to give them some sense of purpose and dignity.

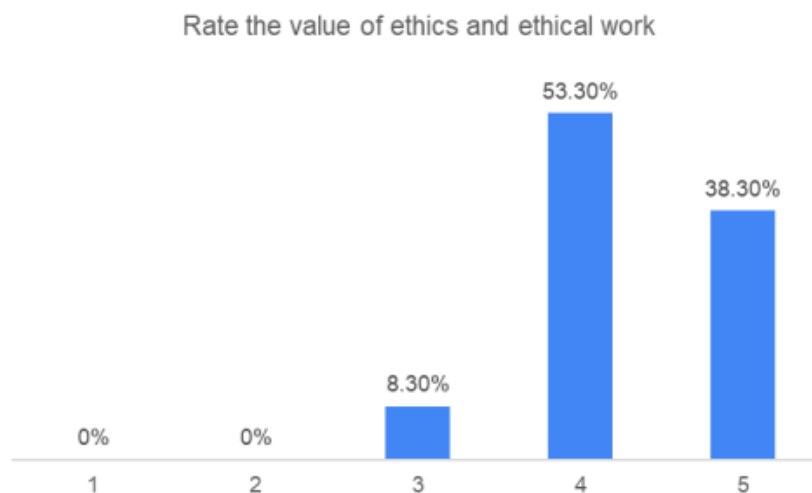
Q4: Which of the following statements would induce you to work harder and put in more effort?



Half the population (50%) chose the option "Great job, I liked the way you approached this aspect of the problem, but next time a different approach could be applied and the method could be improved upon" which shows that suggestions to improve their work (when it was combined with either positive feedback or was put forth in a polite manner) was the most efficient way to increase motivation. Only 15% felt motivated by a pure compliment ("Fantastic job! You're impeccable at everything, keep it up!"). Whereas 28.3% of the respondents felt motivated by incentives such as an opportunity to become "employee of the month".

Work Ethics

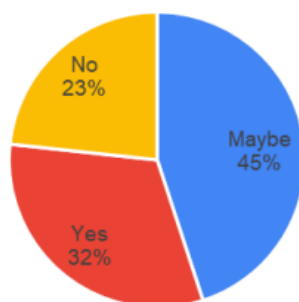
Q5: Rate the value of ethics and ethical work



On a scale of 1 to 5 (from "no value" to "very valuable"), options 1-2 were not chosen by any of the participants. The majority of the sample (91.6%), valued ethical work, whereas 3.3% were indifferent to it. Hence, it would be fair to conclude that ethical work is important to the sample.

Q6: If there is no harm/ punishment for pursuing an unethical activity that guarantees a reward would you still take the ethical course?

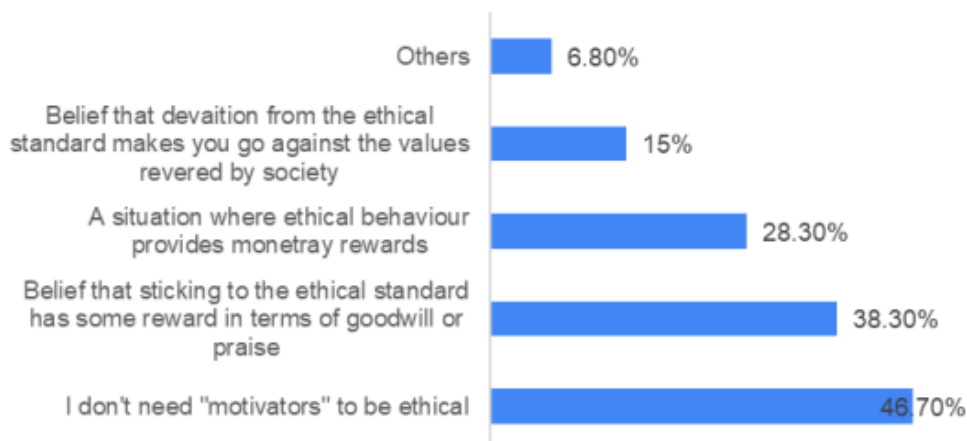
If there is no harm/ punishment for pursuing an unethical activity that guarantees a reward, would you still take the ethical course?



When faced with a choice to do ethical work, without any harm/punishment for unethical work, 32% chose a strict "yes", 23% chose a strict "no" and 45% chose "maybe". Hence, it may be concluded that for 32%, being "ethical" was more important than gaining benefits by taking an unethical course of action. Ethics are seen as a good in itself by this portion of the population. 45% were unsure as to what they would do.

Q7: Which of the following would be the most effective motivators for you to be ethical in your work?

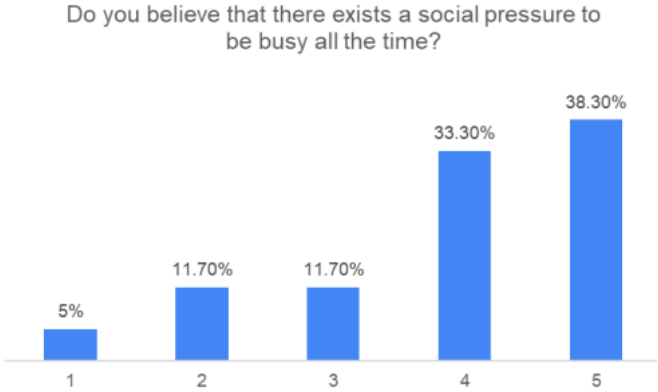
Which of the following would be the most effective motivators for you to be ethical in your work?



The majority of the participants (46.7%) chose “I don't need "motivators" to be ethical”, whereas 38.3% chose “Belief that sticking to the ethical standard has some reward in terms of goodwill or praise”. Other answers that were given by the respondents include: “I don't think being ethical is a concern for me at all”, “if being unethical causes someone harm, mentally, physically or socio-economically, or if it goes against my personal values which might be different from what is revered by "society" and “belief that being ethical is better than facing the repercussions”.

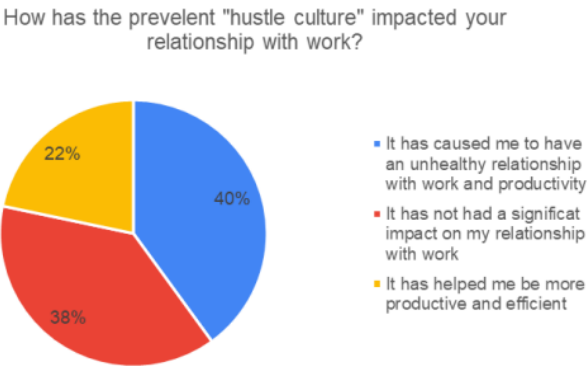
Cultural determinants of Work Values and Ethics

Q8: Do you believe that there exists a social pressure to be busy all the time?



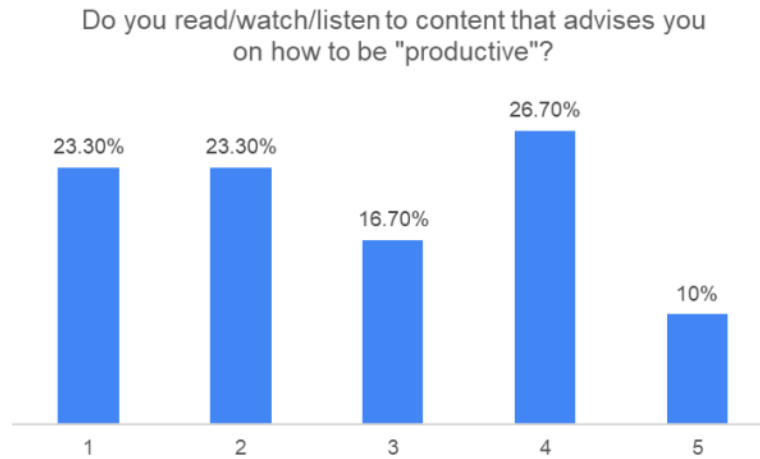
On a scale of 1 to 5 (from “not really” to “yes! all the time”) The majority (71.6%) of the population agreed with the statement that "there exists a social pressure to be busy all the time" to some degree (they picked 4 or 5 on the scale). Whereas 11.7% chose a neutral take (3) and 16.7% didn't really think such a pressure existed (they picked 1 or 2).

Q9: How has the prevalent “hustle culture” impacted your relationship with work?



40% of the respondents had a negative relationship with "hustle culture" as they chose “it has caused me to have an unhealthy relationship with work and productivity”. On 21.7% of the sample, it had a better impact, as it made them more “productive and efficient”. Whereas 38.3% of the sample was indifferent to it. (Hustle culture is understood to be a form of outlook on life that prioritizes work and success in work above any other pursuits).

Q10: Do you read/ watch/listen to content that advises you on how to be “productive”?



On a scale of 1 to 5 (from "not really" to "yes, very regularly"), the majority 46.6% chose 1 to 2, whereas 36.7% chose 4 to 5. Hence, productivity-based content was popular, but only amongst a certain part of the sample.

Q11: Which of the following serves as sources of motivation or inspiration for you?



For the majority (61.7%) of the sample, "intrinsic motivation" was their primary driver. 56.7% chose their "peers" as motivators, whereas 36.7% chose "billionaires, popular entrepreneurs and innovators". Other answers that were given included "deadlines", the American singer "Billie Joe Armstrong" and "family, competitors". Hence, the sample majorly drew motivation from their immediate surroundings, such as family and friends or relied on intrinsic motivation.

Discussion

Work values

Our findings in Q1 and Q2 are consistent with that of Twenge et al., who found an increasing emphasis on extrinsic work values (money/prestige) and decreasing emphasis on intrinsic work values (work as a source of meaning, satisfaction and actualisation) over generations. It is evident from Q2 that extrinsic reward is the primary driver of the respondents followed by intrinsic values such as fulfilling your duty and finding a sense of purpose. Altruistic and social values have minimal emphasis.

Work is considered essential and leisure values are given low emphasis which is consistent with the findings of Boer et al. Increased emphasis on extrinsic work values can be explained by the higher emphasis placed by Gen Z on security and stability following from the experiences of the financial crisis of 2008 and the recent pandemic. Increased economic instability and unemployment, increased cost of higher education and higher debt load may have caused work to be viewed as a means of securing a livelihood rather than a good in itself.

From the responses in Q3, we observe a moderate link between identity and work (i.e work centrality). This moderate position could be a result of two opposing forces acting on the sample. According to Gould and Werbel (1983) people in the middle of their lives have stronger work centrality as work is a crucial component of their identity.

Responsibilities and desire for financial stability in middle age increase the importance of working. As most of our respondents are university-level students, work is not yet a crucial component of their lives. However, according to the findings of Goldman (1973) those who are upwardly anchored are more likely to be committed to their work. University students seeking career and academic advancement hence form strong bonds with work.

From Q4 we see that feedback and suggestions are important for a majority of the respondents followed by an intimation of success or reward. We see that little emphasis is placed on non-constructive feedback, lack of feedback or a threat to the job. These results are consistent with the findings of Maloni et al. (2019).

Work Ethics

From Q5 we observe a high degree of emphasis on ethical work. From Q6 we can observe that emphasis on ethical work is intrinsic and not externally motivated for a majority of the population which implies that the respondents are willing to trade off rewards for maintaining an ethical standard. This appears in contrast to the high degree of emphasis placed on extrinsic rewards by the sample. Q7 supports the results of Q6 by showing that for a majority, ethical choices don't require motivation but are intrinsically motivated. However, we also notice a moderate preference for incentive to choose an ethical course. This reward is observed to be largely related to money, praise and goodwill (extrinsic reward) which agrees with our findings on work values. We can hence reach the rough conclusion that the sample considers ethical work to be more important than extrinsic reward.

Cultural determinants of Work Values and Ethics

From Q8 we can observe that a majority of the sample faces social pressure to be busy all the time. This 'social pressure' which is perpetuated by the hustle culture present in society has caused a negative relationship with work for a majority of the population, however, a large section of the sample remains indifferent to it. From Q10 we can see that "productivity content" is not popular across the sample and from Q11 we observe that the motivation to work for people is largely internalised or imposed by their peers. Hustle culture or 'workism' may therefore be a manifestation of economic insecurities brought on by financial crises which necessitate a prioritisation of work to survive.

Conclusion

We can infer that Gen Z places a high degree of emphasis on working and is eager to obtain extrinsic rewards such as money or prestige. To a large extent, work is not valued as a good in itself but rather as a method of attaining a desired living standard. Despite the high degree of emphasis on reward, there is a considerable degree of ethical consciousness among the respondents where ethics is perceived as an unconditional ideal for the respondents. While Gen Z's competitiveness and desire for growth can be seen as conducive for the future of the industry, at an individual level we note a discontent with the respondents' relationship with work. With hustle culture giving way to an era of 'workism' the lines between work and life are getting blurred. A workplace grounded in ethical values that provides opportunities for individual growth while also allowing for flexibility and autonomy is ideal for Gen Z.

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IMPACT OF DONATION AMOUNT ON DONORS' PROPENSITY TO FOLLOW-UP

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Abstract

With an increase in the donating behaviour, we seek to understand the relationship between individual charitable giving and following up to inquire into the utilisation of the donation for the established purpose. The paper uses a primary survey to understand the behaviours and underlying motivations of individuals who donate to charitable institutions across levels of donation amount and financial dependency. While the majority did not follow up on the average donated amount, the likelihood of following up increased with a rise in donation amount. It further recognises pathways that charitable organisations can adopt to incentivise individuals to donate more.

Keywords: Charity, donor behaviour, altruism.

Introduction

Across the globe individuals and organisations show altruistic behaviour with the intention of “giving” in multiple ways including directly helping someone, volunteering time or donating money to an organisation or a cause. According to the Charities Aid Foundation Report, while significantly more people contribute to helping strangers and volunteering their time, the proportion who donate money have shown a declining trend in the last decade. However, with rise in adversities, the COVID-19 pandemic provided a fillip as donating behaviour rose again in 2020. Every third adult made monetary contributions to charitable organisations or causes and consequently, charity donations rose to a five year high in 2020.

However, while large donations may amount to an increase in charitable donations, they do not always translate into charitable actions. The reliance of a donor on NGOs and charities might cause the amount to be syphoned and utilised to fulfil selfish objectives and other purposes. A safeguard against this would be the donor's active follow-up to ensure meaningful and optimal utilisation of the amount for the identified cause. However, this behaviour is rare and most individuals disengage from the entire donation lifecycle after contributing the amount. This is compounded by a lack of standardised reporting systems for informing donors about the performance of the organisation and eventually results in ambiguity regarding how the amount is being utilised. In an instance of misuse of the money donated, two Australian charities fundraising in support of organisations to help those having served in the Defence Force were apprehended for using funds to attend functions linked to the Liberal party. Consequently, to prevent further misuse they committed to 15 measures to improve transparency and financial management. Further, an internet survey found that 71% of donors who expressed a lack of trust towards their chosen charity organisation cited ‘being unaware of how charities spent their

money as their primary concern. In another case, funds donated to the Trump Foundation were used by Donald Trump to unlawfully boost his 2016 presidential election campaign, settle legal claims against his businesses, and purchase a \$10,000 portrait of himself.

This paper thus seeks to establish the prevalence of the behaviour of following up on the utilisation of the donation amongst donors and assesses the relationship between donations and this associated behaviour. It further inquires into the underlying reasons for the presence or absence of the following up behaviour.

Literature Review

The rationale for charitable giving has been established as it being for the public good. It is motivated by a desire to benefit someone other than the self and is characterised as altruistic. In accordance with this, altruism is considered a priori argument requisite for charitable giving. It is classified as pro-social behaviour that encompasses a range of actions intended to benefit others. However, patterns observed in data about charitable giving obtained from national surveys in the United States are inconsistent with a model of pure altruism and indicate that other motivations must be included to account for these data. Bekker and Weipking's empirical analysis of the academic literature on charitable giving—based on a literature review of more than 500 articles—to review the central question of why people donate money to charitable organisations locates eight mechanisms, namely: (a) awareness of need; (b) solicitation; (c) costs and benefits; (d) altruism; (e) reputation; (f) psychological benefits; (g) values; (h) efficacy, that drive charitable behaviour.

These identify determinants besides altruism that guide decisions centred around charitable behaviour. We, thus, define: pure altruism, impure altruism, and psychological egoism.

1. Pure altruism refers to acts undertaken in order to do good to others or undertaken to prevent harm to them. The final output of charities is a public good that enters the utility function for the individual. Charitable giving in this form is simply motivated by altruism and the awareness of the need.
2. Psychological egoism diametrically contrasts altruism to contend that all human action is ultimately motivated by self-interest. Even actions that seek to benefit others further the individual's own good. This behaviour conforms with the "psychological benefits" as a factor identified for charitable giving by Bekker and Wiepking. Charitable organisations have capitalised on this motivation and engaged consumers by advertising the psychological benefits of giving and simultaneously increasing contributions to charity.
3. The impure altruism characterisation treads the line between purely altruistic and egoistic desires by stating that one may act altruistically out of selfish concerns or seek selfish psychological rewards by behaving altruistically. In addition to the altruistic element, the amount of donation also enters the utility function indicating that an individual derives utility from giving.

These frame the Warm Glow model which allows for individuals to be purely altruistic, purely egoistic, or impurely altruistic in their charitable giving by adding the emotion-associated

reward of satisfaction experienced when donating for the public good. When people start to give for “selfish” reasons instead of altruistic reasons, such an extrinsic motivation may crowd out intrinsic motivation to help; as a result, helping behaviour might decrease in the long-term as people’s inherent interest in the welfare of others decline. From the behaviour of donors, we can infer that they are not as concerned about the public benefits generated by their contributions. Although people express a desire to help those in need, people routinely fail to follow through on their charitable intentions. Additionally, the private and psychological benefits or selective incentives for contributions dominate altruistic motives. Hence donors may be called “impure altruists”.

There are other factors that influence the propensity to donate, such as the image and brand of the charitable organisation and the perception that the organisation is efficient. This indicates that the effective utilisation of money for the purported objective is a factor that is important for donors. This can be generated in donors by the level of credibility of the organisation, possibly by the way it builds its image before society. Thus, the authors also argued that organisations should be able to present historical data and positive results on philanthropic work, as the reputation of a charity can obtain a new donor.

A survey by Just Giving on online donors covering responses by 20,000 participants recorded that when deciding whether to donate to a particular charity, the sense that money would be used effectively was cited as very important by 68.3% of respondents as personal motivation. Thus, a positive ranking and reputation for transparency can become a helpful tool for a charitable organisation in maintaining credibility.

The types of information donors consider when making charitable giving decisions include metrics, anecdotal data, and sources. An analysis of 10 million donors on Charity Navigator, an online tool that provides information regarding financial health, transparency and legitimacy of the charity organisations, revealed that donors searched for result-oriented information including correspondence from donors asking whether or not a charity is doing good work and are having a positive impact; however, most charities do not monitor, report, or share their results publicly. Additionally, they observe a spike in the search for charity’s impact during times of crisis and disaster. Upticks in web traffic and large increases in donations were observed for a period before and the six days after Hurricane Matthew in 2016. Donors giving in these times are driven by emotion and are often unfamiliar with the charities providing the services they are aiming to support. Donors seek external validation from such tools and sources to confirm the trustworthiness of the charities.

Thus, charitable giving can be motivated by reasons other than altruism and the wish to donate to the need. Extrinsic motivators like psychological benefits of giving and incentives attached to the giving behaviour are factors in determining altruistic behaviour. However, those donating are concerned about the ultimate utilisation of their money and pursue efficient implementation

of their charity intentions by entrusting the donation to an organisation of repute, credibility or verifiable impact.

Methodology

The assumed hypothesis is that an increase in the amount of charitable donations will have a positive impact on the contributor's willingness to follow up on how that sum of money is spent. Due to a lack of existing relevant data, this paper relies heavily on primary data which was collected by creating an online questionnaire using the Google Forms software. The questionnaire was distributed to individuals who have previously financially engaged with charities. There were no restrictions placed on the age, city or income background of the respondents. The final sample size for the data collected was 106, which was categorised by financially independent/dependent individuals and the amount of money they contribute per donation on average to account for whether a certain group displays the hypothesised behaviour more than others. The primary data was analysed on the basis of secondary data available to make conclusions about the rationale behind observed behaviours.

	<₹500	₹500- ₹1000	₹1000- ₹5000	>₹5000	Total
Financially Independent	13	8	14	16	51
Financially Dependent	24	19	8	4	55
Total	37	27	22	20	106

Table 1

There was an approximately equal split between the number of financially independent respondents (48.11%) and financially dependent respondents (51.89%). 34.91% of the respondents said they donated less than ₹500 per donation on average, 25.47% donated between ₹500 and ₹1000, 20.75% between ₹1000 and ₹5000 and 18.87% donated more than ₹5000. We will classify these donation groups as low, lower-middle, higher middle and high respectively for the rest of the paper.

Results

Q. What is the likelihood of you following up on if or how that amount has been utilised?

9.3% of the respondents claimed to always follow up on how the amount spent was utilised, while 42.1% said they never do so. 48.6% said they sometimes follow up.

Q. If your response to the above question was sometimes/never, what is the reasoning behind your decision to not follow up on the amount donated?

For a majority of the respondents, the reasoning (62.9%) behind their decision for not following up on the amount donated was that they “generally donate to NGOs or organisations that have been established as reliable”; followed by they were “unaware of how to follow up or do not have resources to follow up” (33%) and “amount donated is too small to be concerned about” (24.7%). Other reasons provided included impersonal cause, donation of tangible goods (perishables, like food), social anxiety and trusted individuals, like family members, conducting the audit process instead.

Q. What would motivate you to donate an amount that exceeds the average amount of your donations?

62.6% of the respondents claimed to donate a larger amount if they were “personally involved with the cause, organisation or the person receiving the amount”; followed by “reliability of the organisation or knowledge about how their funds are being utilised” (49.5%) and “if a small amount is inconsequential in the situation” (18.7%). Other motivations listed for donating a higher sum of money included deductions in tax, or similar benefits (12.1%) and a change to being financially independent.

Q. How likely is it that you would follow up if the amount donated was larger?

29.9% of the respondents claimed to always follow up if the amount donated was larger, while 9.3% said they never do so. 60.7% said they sometimes follow up.

Analysis

A comparison between the responses provided for the questions recording the frequency of follow ups when contributors donate their average amount versus a high amount brings to light the fact that the number of respondents always following up increases by 220%, sometimes following up increases by 23.08% and never following up decreases by 77.27% when there is a higher sum of money involved. Thus, for the entire sample size, there is a positive impact on the willingness to follow up on how their donations have been spent as shown in Figure I.



Figure I

Analysing the financially independent and dependent sub-groups we notice that for financially independent individuals the number of respondents that always follow up increases by 200%, sometimes follow up decreases by 3.7% and never do so decreases by 61.11%, whereas for financially dependent individuals the number of respondents that always follow up increases by 250%, sometimes follow up increases by 52% and never do so decreases by 88.46% when there is a higher amount of donation involved. Thus, apart from the sometimes respondents who are taken to be neutral, the financially independent and dependent sub-groups emulate the same behaviour as the larger sample group, as can be seen in Figures II and III.

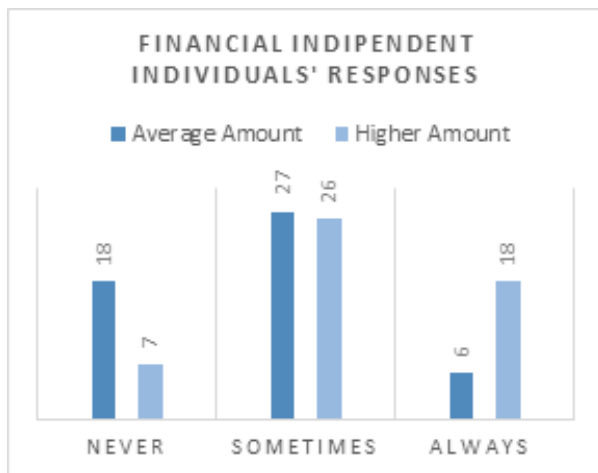


Figure II

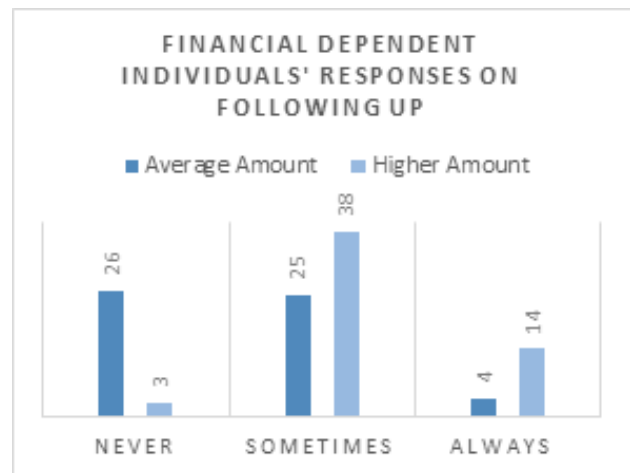


Figure III

Looking at the data collected for the different donation groups, we observe that the number of individuals in the low donation group who always follow up increases by 133%, sometimes follow up increases by 125% and never do so decreases by 86.36%, whereas in the lower-middle donation group individuals that always follow up increases by 700%, sometimes follow up increases by 12.5% and never do so decreases by 90% when there is a higher sum of money involved. For higher-middle and high donation groups, the number of respondents always following up increases by 200% and 166.67%, sometimes following up decreases 8.33% and 33.33% and those who never do so decreases by 71.43% and 20% respectively when individuals donate a larger amount.

Thus, although there is a positive impact displayed in all four groups, the two on the lower end of the donation distribution display the hypothesised behaviour to a greater extent, as displayed in Figures IV, V, VI and VII. If we consider a direct relation between individual income and donation amount, individuals belonging to the low and lower-middle donation response groups will tend to have a lower income in comparison to those in the higher-middle and high donation response groups. A lower income might result in the associated behaviour of being more prudent with expenses and, thus, wanting to ensure that their amount is utilised positively. In consonance, they show the following-up behaviour to a greater extent.

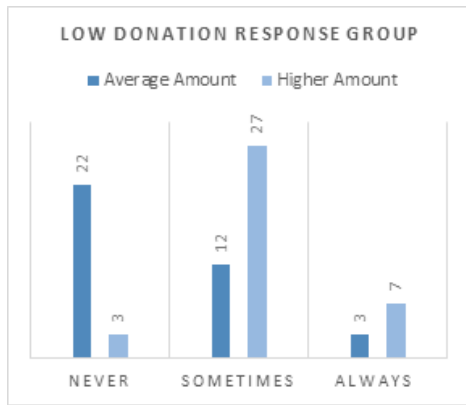


Figure IV

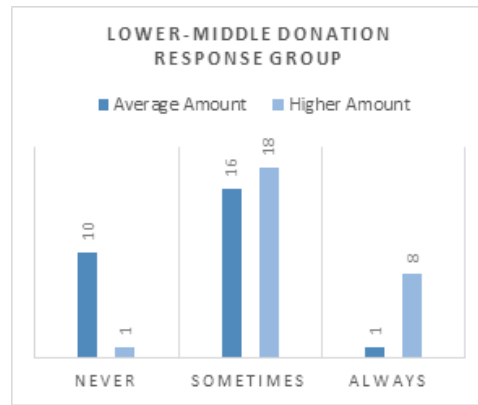


Figure V

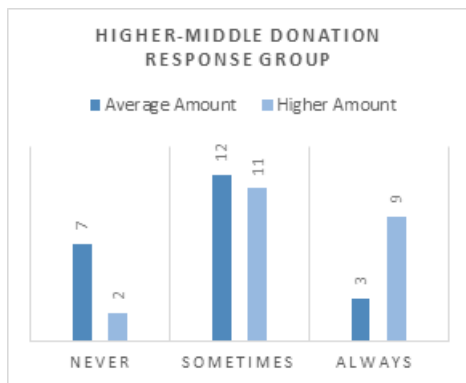


Figure VI

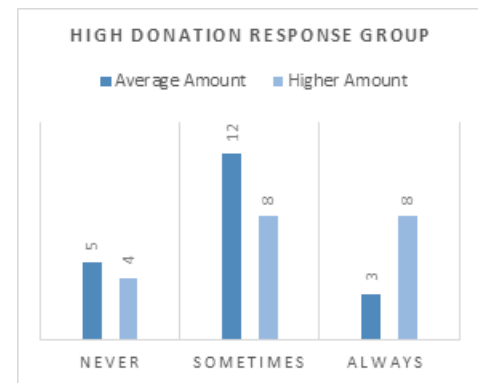


Figure VII

Additionally, the primary reason stated for the increased donation amount was personal involvement with the cause. This aligns with the impure altruism characterisation as personal involvement is necessary to incentivise the intrinsic motivation to help with a larger amount of money.

Limitations

The sample size of the data collected, due to a lack of access to resources, is too small to make conclusive results about the much larger population set. Additionally, a majority of the data collected consist of respondents from high and higher-middle class families and, thus, might not be a true representative sample of the population.

Response biases, in the form of social desirability and conformity bias, might be operative. It can be hard for respondents to openly express non-conformity when asked to self-report their behaviour, beliefs, and opinions; this is especially true when the respondent believes they may be viewed in a negative light. In such cases, respondents tend to provide a socially acceptable response, sometimes subconsciously, over their true feelings. We have attempted to eliminate such biases by assuring the respondents anonymity. However, the possibility of such distortions cannot be overlooked.

Further surveys need to be conducted to achieve a larger sample set to validate the results of this paper and eliminate the limitations we have faced.

Conclusion

The paper seeks to analyse the relationship between individual charitable giving and follow up behaviour. In our analysis, we observe that follow up behaviour increases with a rise in the amount donated across low, lower-middle, higher-middle and high donation response groups and sub-groups of financial independence and dependency. Further, the two primary reasons behind not following up on the donated amount were associated with not being aware of the procedure or available resources to follow up, or donating to NGOs or organisations with an established and outstanding reliability. Additionally, few individuals considered the amount donated as too small in concern to follow up on. This aligns with pre-existing literature and leads us to conclude that an effective method to build the behaviour of following up on donations to NGOs or charitable organisations would be to facilitate transparent action paths to understand how the donated amount is being utilised and demonstrate reliability in their operations to develop trust among donating groups.

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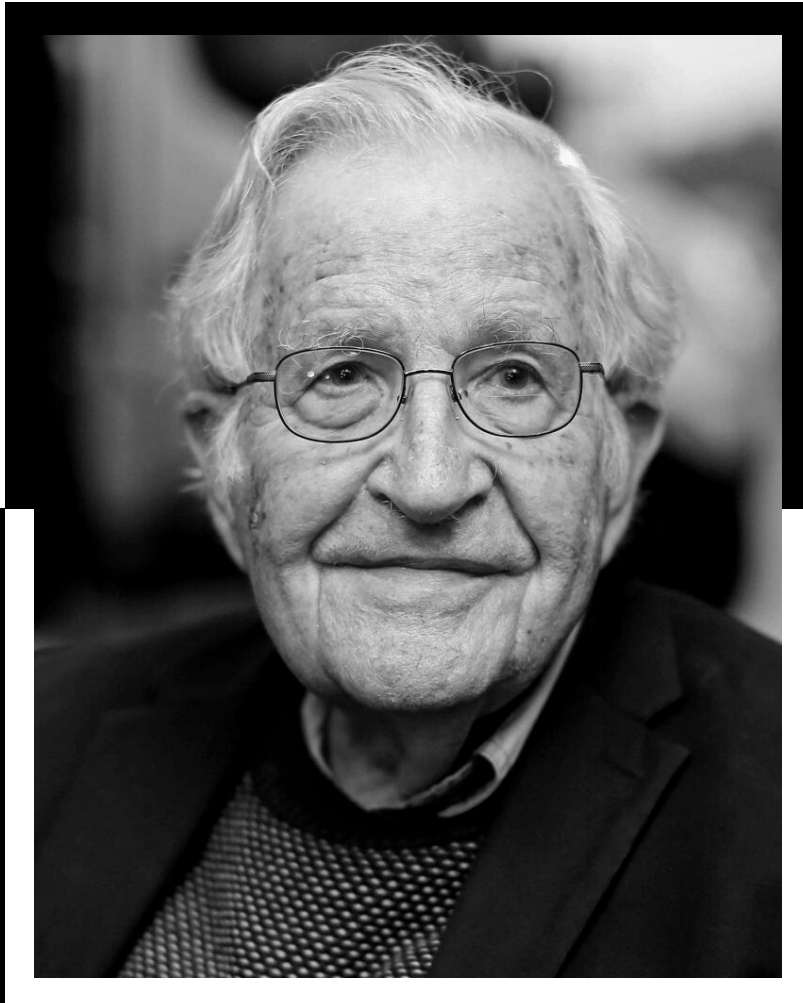
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IN CONVERSATION WITH NOAM CHOMSKY



Noam Chomsky is a pioneering linguist, one of the founders of the field of cognitive sciences, and one of the most influential public intellectuals in the world. Alongside his contribution to the field of linguistics, Prof. Chomsky is also widely known and deeply admired for being one of the most prominent political theorist and commentator of our time. Laureate Professor of Linguistics at the University of Arizona and an Institute Professor Emeritus at the Massachusetts Institute of Technology, he has written over a 100 books, his most recent one being “The Precipice: Neoliberalism, the Pandemic and Urgent Need for Radical Change.”

The internet has brought a large increase in accessibility and usage of political text and literature. However, this increase has not been accompanied by a similar increase in the understanding of various political movements among the public. A lot of people use words like fascism, feminism and socialism in a reduced state as everyday lingo while overshadowing their political significance. In a recent interview with the Catalyst, you mentioned "People use fascism to describe anything rotten these days." How do you think this disconnect between political words and their significance is affecting the state of political resistance and understanding in today's youth?

Well, the crucial phrase here is "the large increase in accessibility". But accessibility is not the same as access. The accessibility is there but the question is, are people using it? And the answer to that seems to be not very much. Yes, it's possible, say in the United States to read the Indian press and learn a lot about India. Do people do it? Almost nobody. Do people read the New York Times? Not much. Young people are getting their information from Facebook and Twitter, which gives you a filtered version of what appears in the mainstream press. Facebook does not have bureaus in New Delhi or Karachi, it simply takes information that comes from elsewhere and filters it down. Furthermore, there is a very strong tendency for people on the internet to turn to particular channels that reinforce their own beliefs. I am not immune to that either, I'm sure no one is. The effect of that is that you tend to lose contact with what is happening in the world and hear only your own perspective on the world

being reinforced and elaborated. So, accessibility is there but the exploitation of that accessibility is very slight.

What's happening is that there has also been a cheapening and vulgarisation of discourse, including the words that you mentioned. But, I should say that it's not anything new, it is just an expansion of what has already existed. Take words like "liberal" and "conservative". What are they supposed to mean? We barely have any conception of what those words once meant and what they mean now. This, I think, is happening quite generally. I'm sure you're much more familiar with it than I am, since I don't use social media. But I suspect that you all use them very extensively, which is typical of the younger generation. Hence, to repeat the main point: while you *do* have accessibility, do you *make use* of that accessibility? If you're in the United States, and you want to learn about the Middle East, do you turn to Al Jazeera? It's there, but not many people are going to go there, they might go to Fox News or whatever reinforces their beliefs or perhaps social media sites which are even more narrow. That's unfortunate and it requires serious educational organisational programs to encourage people to make use of the available resources. They are not of any use if they just exist and nobody looks at them.

You have said in interviews that an intense nationalism often comes when there is an authoritative State in power. However, in many colonised countries (such as India) a strong sense of nationalism was purposefully built in order to create a sense of unity in order to resist colonial policies.

Does this form of nationalism also have an equal chance of turning against the democratic nature of the state?

I don't know how to measure whether it is an equal chance or a stronger chance, but it certainly has that possibility. You can tell me more about it than I can tell you because you're living right in the middle of it.

Indian nationalism did lead to a democratic secular society, there were plenty of flaws, but by international standards, Indian democracy ranked quite high for many years. However, it is now moving into extreme autocracy, an attack on secular democracy which is quite explicit or strong. There's a strong move to create a Hindu ethnocracy which will not be democratic internally and which will suppress second class citizens, especially Muslims. The rights of the minorities will be crushed, like it's being done in Kashmir. So, the answer is yes; a nationalist movement that arose against colonialism and established a vibrant secular democracy can degenerate into an autocratic, anti-democratic state, Hindu ethnocracy, and you're seeing it happen before your eyes.

Does it have to happen? No, people can prevent it but it's going to take plenty of work to try to combat religious extremism, combined with super-nationalist hysteria, which is a very difficult task. We face that task in the United States (second oldest democracy), in India (the largest democracy), we're facing it in Brazil. Some of the major, long-term democracies are facing this decline. The European Union just classed the United States as one of the states that's declining from democracy towards a kind of proto-fascism. They're not wrong and India is another case.

In fact, to some extent the same is happening in the oldest democracy i.e. England; when Boris Johnson, a couple of years ago, suspended parliament because he wanted to ram through his own version of Brexit. That was a serious attack on British democracy—and it was recognised as such, if you read the British newspapers of the time, the leading legal authorities were infuriated. The British supreme court finally stepped in and banned it, but it was too late because he had already achieved what he had wanted. Then Johnson went on, after he had signed the Brexit agreement, to immediately say that England will not live up to it, that “we'll do what we want”, that they'll not live up to it no matter what they signed—another major attack on democracy and international law. Hence, some of the major, long-term democracies are facing this decline at different paces, and to different degrees. India is perhaps the most extreme case of democracy decay. So the answer to the question is, yes it can happen, and we're witnessing it.

In a democracy, citizens are meant to have an important say in matters of public policy, at least in theory. A lot of policy decisions, even in India, are not publicly favourable or supported, yet it is often accepted because the government or policy makers "know better" and have the citizens' best interests in mind. What do you think should be the role of everyday citizens in shaping domestic, foreign and military policy decisions or are more complicated matters better left to the "experts"?

That's a very interesting question and leads in many directions. First, let's take the last claim: are complicated matters better left to the experts?

Well, the experts will tell you that. But if you look at the records, you'll find out that they're mostly experts in failure and disaster. Take the United States, during the Kennedy years, early 1960s, there was a major movement to leave things to the experts. There was a distinction made between what was called the technocratic and policy-oriented intellectuals, the good guys; and, what were called, the "value-oriented" individuals, the bad guys—who cared about things like justice, freedom, human rights, all kinds of such sentimentality. You had to leave things to the "experts", the ones who immediately led the United States into a vast war of aggression and violence which almost destroyed Indo-China. Those are the "experts". They also instituted programs in South America, U.S. domains, under Kennedy. I'll quote the head of counter-insurgency for Kennedy and Johnson; looking at what happened, he said that Kennedy's decisions in South America meant that the United States shifted from tolerating the rapacity and brutality of the South American military to directly participation in crimes of the kind that were carried out by the Nazis. That's the "experts". We can go on with such examples. The experts told us that we should invade Iraq and Afghanistan, the experts told us that we should impose the neo-liberal rules which have devastated the world including the United States for the last forty years. These are the expert decisions. Should we leave the decisions to them? They would tell you to do that. Mainly, the "masters of mankind", as Adam Smith called them, those who control capital and wealth, they are the ones who pick the experts, who work for them and not for everyday citizens.

So everyday citizens should be aware that they should not leave these straight-forward matters—they're not very complicated—to the experts, but citizens should be involved themselves.

The first part of the question says "citizens are meant to have an important say in matters of public policy, *at least in theory*." Yes, in theory, but not in practice. You can talk about India, I'll talk about the United States. The major book on the constitution of the United States, the formation of the country, the gold-standard in scholarship is called "The Framers' Coup", the coup that the Framers' carried out against democracy. And that's exactly what the constitution was. The constitution was designed to block the democratic efforts of the general public and to ensure that the "men of best quality", as they were called, would have the decisive role in policy. In the constitution, the main power was placed in the Senate, a Senate which wasn't elected.

It wasn't until 1913 that the Senate was elected. We're talking about 1776, 1789. The Senate was supposed to represent the wealth of the nation, the people who respect property and its rights. James Madison, the framer, said that a primary role of government is to protect the minority of the opulent against the majority. So, the constitution itself was a strongly anti-democratic document. It was constructed by a group of white, male, wealthy, slave-owners who met in Philadelphia to carry out a coup against democracy. That's how the country was founded.

Let's come to the modern period, the twentieth century. Leading public liberal intellectuals, what do they say about democracy?

Let's take Walter Lippmann, a respected liberal intellectual of the twentieth century, a Wilson-Roosevelt-Kennedy liberal. He did a lot of writing on democracy. He said that people have to be spectators, not participants in democracy; the participants are the responsible men, people like me—educated white experts will take care of things; we have to be protected from the general population; the general population has to be put in its place, they are ignorant and meddling outsiders; we, the experts will run things because we know better. That's democratic theory and it plays out daily. Take a look at what is happening today, in Congress. There is a debate going on about a major bill that the Biden administration proposed which is intended to bring the United States into the civilized world. I mean that literally. The United States is very backward on matters of elementary social justice. For example, take some simple matters such as maternity leave—the right of a mother to stay with her baby for some period after birth. The United States is virtually alone in the world in denying this right. It's joined by a few small islands in the Pacific. You go to the second largest country in the western hemisphere, Brazil, you have four months of guaranteed, paid, maternal leave and an extra two months of optional leave at public expense. United States, zero. If you go to Europe, you not only have maternal leave, you have paternal leave. United States, zero. Take the health system, the U.S. is one of the few countries in the world that doesn't have a public health system. It has private health systems. That means that the costs are about twice as high as comparable countries and the outcomes are among the worst in the modern developed societies. That's what happens when you privatize healthcare. You have your own version

in India. Health expenditures in India are among the lowest in modern countries. I think it's about 1% of the GDP. There are very good hospitals, but they're private, for the rich. There is a public health system, but it's barely supported. Is that what the people want? Absolutely not. I know that in the United States polls show that overwhelmingly people want a public health system which people have access to. But they're not getting it. Why? Because the bill that is now in Congress, which will probably be voted down, the Republicans are a hundred percent against anything that might benefit the general population, they work for the rich and powerful in the corporate sector and enough Democrats have joined them so it probably won't pass. If you look at the measures in the bill - like what I mentioned and many others- it turns out the public strongly favours them. But it doesn't matter as the public doesn't have a voice. In fact, there are careful studies in mainstream political science studying the extent to which people are represented by their own representatives. That is, if you compare what people prefer to what their representatives vote for, there's essentially no correlation for the lower 70% of the population in wealth. As you move up the level of wealth, you get more correlation because there the representatives are listening to the rich and the powerful. The elections are pretty much bought, you can predict the outcome of an election pretty well just by looking at campaign funding. That means when a representative is elected, the first thing he does is get on the telephone to make sure that the funders will fund his next election. That means he's listening to their voices, not to the voices of his constituents, the people who voted for him. That's quite apart from the fact that Congress is overwhelmed with masses of corporate

lobbyists who greatly outnumber the congressional staff themselves. Hence they pretty much write the legislation. Well, so let's go back to the words at least in theory. Yes, in theory but not in practice. I'm sure you can duplicate the story in India. The conclusion is, no, the "experts" do not know better. What they do know better is what their masters want, not what is in the citizens' best interest. Therefore, everyday citizens should shape policy. You've just seen a remarkable example of this in India. The Farmers Strike, that's the everyday citizens participating in shaping policy. The autocratic government finally had to back down. It's a great victory for democracy and for the courageous farmers movement. That's what citizens should be doing, on every issue.

Your advice while teaching children languages is to focus on cultivating interest, rather than focusing on the method of teaching. However, it's often seen that even when the school curriculum offers reading lists that specifically cater to teenage interests (eg. offering popular young-adult novels such as "Harry Potter" and "The Hunger Games" in the course curriculum), instead of being interested in learning, they end up losing interest in the book (which once was interesting to them). What could be the reason behind this reaction? Does it hint towards a fundamental failure of the schooling system?

If you look into it, I think what you'll find out is very poor teaching. Maybe they read Harry Potter, but they probably read it in a mechanical way without the encouragement of the teacher to see what's of interest and value.

I've had my own experience with this with my grandchildren. The Harry Potter books came out before they were able to read, so I read them to them, they loved them. As soon as they were just barely beginning to be able to read- just barely, they wanted to get rid of me and read them themselves. When the Harry Potter books were announced, that they're going to appear today, every kid in the city where I lived was standing at the bookstores waiting to get the first copy, as soon as they were put on the shelves, running home, sitting in a corner and reading them, as they were excited by them.

And, teachers have had the same experience- teaching them properly just means encouraging the students to do what they want to do anyway. Children are inquisitive, they're always asking questions, being a nuisance and they're constantly asking why. You give them an answer to one question, you're asked another question. Well, good teaching can either stifle that by saying "shut up and do your work" or it can encourage it and let it develop. Those are two methods of teaching. Go back to the Enlightenment, a couple 100 years ago, the first method of teaching was ridiculed, it was described as pouring water into a vessel and then having it come out of the vessel in a test. Every one of you, I'm sure, has taken courses in school where you had absolutely no interest in it. You studied for the exam, you did well, 2 weeks later you forgot what the course was about. That's the worst possible form of teaching- teaching to test at school. Pour water into the vessel, some of it comes out in tests. The right kind of teaching is encouraging children to do what they want to do anyway. Explore, understand, investigate, discover on your own.

What you discover on your own becomes a part of you. What's poured into you like a vessel is not part of you, you forget it right away. Now in the case of the Harry Potter books, I don't know the cases you're mentioning, what I strongly suspect, if you look into them, you will find that it's the quality of the instructional system that led to the result you're describing.

You've famously said: "Citizens of the democratic societies should undertake a course of intellectual self-defence to protect themselves from manipulation and control." Could you elaborate on the importance of this practice, especially among students?

Let's take concrete examples, say what you just brought up in a previous question - we should leave things to the "experts" because they "know what's best." Who are we? We're just ordinary, simple people, how can we understand these important things that the "experts" understand, like the health system should be privatised so that most of the population doesn't have access to it or we should invade Iraq, or we should destroy Indo-China or we should support South American killers. That's what the "experts" say, what do we know? Well, that's where you have to start with a course of intellectual self-defence. The "experts" tell us, "listen to us, we know everything, you don't know everything". You should ask, who says? Show me that you know what I don't know. What's so complicated about the question of whether to invade Iraq on fabricated evidence that you invented. Is it hard to figure out? What's so hard to figure out about why we should establish policies which enrich the very rich and impoverish everyone else. Is that hard to figure out?

Is it hard to figure out why you're giving that advice? Who pays your salary? Who pays your campaign spending? Doesn't take much brilliance to figure that out. So, that's intellectual self-defence, when you're told "shut up and listen", you should ask why. Why should I do that? Why shouldn't I participate equally in the decisions that affect my life? If there are things that have to be learned, why can't I learn about them? It goes all the way back to every aspect of life. Suppose you have a job in a factory, you are then essentially the slave of a master. You're spending almost your entire waking life following the orders of a master. Does that have to be that way? Could you and your fellow employees run the place yourselves? That's the way working people thought for most of history. It's only in very recent times that workers have agreed that they have to be subordinate to masters. Go back to the early industrial revolution, they fought against this bitterly. To be a subject to a master is an attack on personal rights and dignity that no decent person can accept. Probably the whole working class fought hard to resist this imposition. Finally, class war succeeded in crushing this instinct. But, it can be brought to the fore and it should be. Again you should ask yourself, why should I accept that? Why should I accept living in an autocracy so extreme that Stalin couldn't have imagined it. Stalin couldn't have told you "You're allowed to go to the bathroom at 3 o'clock in the afternoon for 5 minutes, here are the clothes you have to wear, you're not allowed to talk to that person next to you because you want to stop work for a second" Stalin couldn't have said that, but your boss can. So, why should you accept that, for almost your entire waking life? Those are questions you can ask too.

They're not new questions, they were asked by working people right through the industrial revolution. They're still being asked, when workers go on strike, they're saying, "I'm not going to accept this. I'm going to insist on what I want". It's a hard battle, class war is difficult but that's the way progress is made. Take the feminist movement - different countries are in different stages of it. In the United States, if you were to ask my grandmother, are her rights being trampled, she wouldn't have even known what you're talking about. Women are supposed to serve, they're supposed to take care of the home, they're supposed to do what they're told, if they vote, if they vote at all, they're supposed to vote the way their husband tells them, that's life. Her rights aren't being trampled because she didn't recognize she had any rights. And now, if you ask my daughter, she'll tell you to "get out and leave me alone, I have my rights and I know what they are, I'm fighting for them." Well that's a transition that took place actually in a generation and it means not listening to what you're told, not accepting what you're told is your place in the world but carrying out a program of intellectual self-defence and asking yourself- What are my rights? What do I want? What do I have the right to ask for? Why should I listen to these people who are preaching to me from above? They don't know anything, they're serving other masters. We should take our lives into our own hands, every aspect of life. That's a program of intellectual self-defence. It's not that hard, we've seen many examples of it, just in very recent years. Feminist movement is a dramatic example, there are many others.

Social media has become an important source of information for many people

by allowing the dissemination of diverse opinions, does it have the potential to reduce the agenda-setting abilities of national media and create a space for critical evaluation of issues or does it continue to serve the interests of the dominant elite through marginalisation of alternative opinion? Also, what has your experience with social media been, or is it something you don't engage with at all?

Well, I'm actually not the best person to ask because I don't use social media. I keep away from them. Of course I see what's in them because people send me things and occasionally I look something up. But, by and large I keep away from them. Social media can be very valuable. Most activist organisations these days are on social media. You want to have a major demonstration in Glasgow, to try to save the world from destruction by the people who are inside the halls, producing pretty words and doing nothing. You want to save the world from destruction, you have tens of thousands of people, mostly young people, demonstrating in the streets, organised through social media. That's the main ends of doing and that's true of much else as well. Social media *can* be used for very constructive purposes. They can be used for information, for informing people about what they haven't been thinking about, or what doesn't reach them. All of that is possible but is it done? To some extent, yes. But unfortunately, the major effect of social media is to isolate people. It's to separate them into self-reinforcing groups of more-or-less like-minded people who are not getting a proper and accurate picture of the world and are not becoming engaged where they ought to.

The choice between these two ways of using social media is in our hands. It doesn't have to be one way or another. It's like all the other things we've been talking about. Things can go in ugly and unfortunate directions. India can people about what they haven't been thinking about, or what doesn't reach them. All of that is possible but is it done? To some extent, yes. But unfortunately, the major effect of social media is to isolate people. It's to separate them into self-reinforcing groups of more-or-less like-minded people who are not getting a proper and accurate picture of the world and are not becoming engaged where they ought to. The choice between these two ways of using social media is in our hands. It doesn't have to be one way or another. It's like all the other things we've been talking about. Things can go in ugly and unfortunate directions. India can move towards autocratic, harsh ethnocracy or it can revive a vibrant democracy that can be a model for the world. Those are choices in your hands, and the same is true of social media, the same is true for everything else we've discussed. There is no inevitability. We know that from history, and from very recent experience, like for example, the feminist movement. And it means it's just up to you to decide what kind of world you want to live in. And, in fact, if we go back to Glasgow,

the choice is very stark. The choice is, do we want to have a world at all? If things proceed on their present course, in another generation or two, South Asia will be unlivable. Unlivable, literally. It will be too hot to live in, too many droughts to live in, it's already approaching that level. You get to a point where in Rajasthan last year, temperatures went briefly to 50 degrees celsius, that's not liveable. Maybe very rich people can figure out a way to survive that, but most people can't.

That's going to be South Asia as things are now moving. The rest of the world is in bad enough trouble, serious trouble. Where I live in the Southwest United States, there is a very severe long-standing drought. What you can't deal with is the result of heating the atmosphere. We go on like this, we're all finished, just at different rates. So yes, there are very serious problems to deal with, and can be dealt with. We know how to do it, the means are there, they're available but they have to be taken. That's the most serious issue that's arisen in human history. There are many others, they all have the same answer—we have means to deal with them but those means are of no use unless we grab the opportunities. That's hard, but not doing it is even worse. And, that's what you face.

Your Money

—OR—

OUR LIFE.

“... and Deliver.”

November strikes like a
to make your very marrow
against the insidious cold
all springs of your health
may secure health and
held up and robbed
our person at the
a fatal disease?
a footpad, and
very chance

CARNEGIE IS HERE!

He is Examining the Peninsula's Advantages.

A STEEL PLANT TO BE ESTABLISHED

AND ERIE IS BEING PLACED IN THE BALANCE

Along With Cleveland, Connant, Ashtabula and Sandusky—Prominent Estates Entertain Him and in a Steamer Examine the Bay—He is Favorably Impressed With the Peninsula Scheme and Thinks the Advantages Are Unequalled—He is Inspecting the Whole Lake Shore for a Site and Erie Has a Good Chance.

The peninsula idea for manufacturing purposes has been given a fresh impetus by the presence of Mr. Carnegie today.

Mr. Carnegie arrived in Erie this morning at 11 o'clock on the Lake Shore last mail. He was accompanied by his private secretary.

They were seen at once to the hotel house and after a short rest Mr. Carnegie was met by some of Erie's representative citizens, including Hon. S. A. Davenport, Hon. J. M. Minner, Hon. James McTrask, W. J. Sands, Sen. McCleary, with Col. Hon. J. T. Blair, and others.

Mr. Carnegie's attention all around the peninsula was expressed in a map of the peninsula as to its manufacturing possibilities.

There will be open houses kept by the Erie Yacht club on Wednesdays and Sundays during the winter.

The funeral of the late W. W. Lytle will take place tomorrow morning at 11 o'clock.

John B. Burton, of East Millfield, died last evening from an attack of fever.

Mr. and Mrs. W. C. Thayer left for Erie this morning, where they will remain until after the holidays.

Mrs. F. S. Phelps left for Rochester, N. Y., this morning, and expects to remain there until after Christmas.

“The Masqueaders” tonight.

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DIED ON DUTY.

While on top of his train running from Connant to Cleveland, P. Z. ...

The body was taken to the ...

It was viewed by ...

After removed to Connant, where ...

He was buried in a family ...

He was 35 years of age and was ...

He was a member of the ...

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THANKSGIVING!

TABLE LINENS

But a few more days until Thanksgiving. The Day of Family Reunions, The Day of Feasting, The Day of Greetings and Good Will.

The Dining Table will be the chief place of attraction that day, and of course you want it to appear at its best.

We ask the attention of all who are interested in choice table linens to our well selected stock.

A very special offering in Table Linen by the yard, is a lot of three handsome patterns in ALL LINEN, Bleached Table Linen at 50c a yard; worth all of 65c.

Another is—a few Patterns in a 70-in. ALL LINEN, Bleached Table Damask. A Bargain at 57 1-2c, which we offer at 75c a yard. WITH NAPKINS TO MATCH.

We are making a specialty of a line of Fine Bleached Table Cloths in Patterns with Borders all around, at the same prices as if cut from the piece. ASK TO SEE THESE.

Knotted Fringe Sets

We are showing a handsome line of Heavy Knotted Fringe Sets in all white, all sizes, at very moderate prices.

A Fine Choice Colored Border, Heavy Knotted Fringe Sets that are good value at \$5.50 and \$6, our regular price. Will be closed at \$4.89 per set. THESE ARE RARE LINEN BARGAINS and are worth investigating.

THREE TOWEL SPECIALS

An all linen, Drawn Border, Knotted Fringe Damask Towel plain white and colored border AT 12 1-2c EACH.

A heavy, All Linen, Bleached Damask Hemstitched Towel, 20x40-in., worth 50c, for 33c each.

An All Linen, Bleached Damask, Fancy Drawn Border, Hemstitched Towel, 22x49-in., worth \$1.12, for 85c. These are extraordinary values.

If you would be provided for against such weather as we have been having lately, step in and see the line of Ladies' and Gents' Mackintoshes we carry. All sizes. All prices.

We can supply the town with Umbrellas. We can sell a good Fast Black Umbrella at 50c, and from that price up to \$7.50, for a pure silk. Elegantly Mounted Handle.

Trask, Prescott & Richardson.

Ninth and State.

great

uctions

and

THE ONLY PLACE IN ERIE

MEN'S AND BOYS' SHOES ONLY.

Where you can get perfect fitting Shoes.

We have all our shoes run from A to E, and will save you 50c to \$2.00 on each pair you buy.

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FAIR COMPETITION FOR GREATER GOOD – APPRECIATING THE ROLE OF ANTITRUST AGENCIES

Manish Mohan Govil, Adviser, Competition Commission of India

Recently, a spate of antitrust litigations worldwide against digital companies has elicited curiosity about the nature and scope of antitrust enquiries and the role of the competition agencies. At its core, Competition Law/Antitrust Law in any jurisdiction essentially means regulating the market forces that define the equilibrium between the producers and consumers. It aims to ensure that exclusionary, exploitative and collusive practices do not lead to chaos, resulting in unfair or disproportionate ability to leverage outcomes especially by those in dominant position.

A parallel can be drawn from recently concluded Olympic games by comparing markets with the sporting arena; at the heart of both is one defining principle – competition. To illustrate; competition was vitiated when Ben Johnson's record breaking 100-metre sprint at the 1998 Seoul Olympics was not the result of his capability but drug induced. Johnson was later disqualified for doping, as were other stars who have used steroids and performance-enhancing substances to win a race, putting to naught the work of those who train hard by fair means. These events led to the establishment of the World Anti-Doping Agency (WADA) in 1999, which adopted the motto "Play True". WADA monitors the World Anti-Doping Code and sets uniform standards to provide a doping-free environment for athletes.

The competition agencies in markets are akin to WADA in the sporting arena. Firms compete in markets to reduce their costs, trigger innovation and lower prices for the consumer. Competition provides firms with access to the world market and provides consumers with more choices at lower prices and better quality of goods. This leads to an increase in productivity that aids the growth of the economy. It also forces firms to innovate in order to fulfil the aspirations of people. However, if a dominant company uses "performance-enhancing drugs", in this case, capital burn, data, preferential treatments, and denial of access, they have the potential to kill or acquire companies that lack these resources, which ultimately harms consumers. Thus, there needs to be an expert body to inquire into the conduct of such a company to establish its complicity. That is precisely the purpose and objective of an antitrust inquiry.

Antitrust enquiries drew public attention when competition was vitiated in the US oil markets by John D Rockefeller and his monopolistic Standard Oil Company. With a quest to establish hegemony through mergers, acquisitions, elimination of competitors and ownership of lines of transportation and communication, he controlled nearly 90% of the US oil market and therefore, held the reins of finance and power. After his business practices and patterns of ownership were investigated by the

US Department of Justice under the Sherman Act of 1888, the company was dissolved into smaller entities that could compete in the market.

Markets have been evolving ever since antitrust actions were initiated to regulate the monopolistic actions of dominant firms. These markets are a complex web of buyers, suppliers and intermediaries, and each market operates within its own ecosystems. Firms compete with one another in their relevant markets to make profits in the same way that players and teams compete in different sporting events at the Olympics to win medals. However, high stakes in the markets can make them prone to distortions through collusion, information asymmetry and entry barriers. Sometimes, government regulations and litigations also may unwittingly aid market distortions.

The leitmotif of competition law is that, whereas dominance is not bad, abuse of dominance is, and firms should compete but not collude. The analytical framework of an antitrust inquiry requires three steps: formulating a theory of harm, collecting evidence through an investigation, and testing these evidences against legal principles. The theory of harm is based on the common economic principles of antitrust and, like all theories, evolves with time and place. Lately, platform-based business models, multi-sided markets with network effects, and economies of scale have rendered competition issues more complex, thus making enforcement challenging. Often at the cost of time these issues are contested before the courts on polemics rather than based on hard evidences collected through professional enquiry.

Most countries have some kind of competition authority to regulate the markets. The US has two very vibrant antitrust institutions—the Federal Trade Commission and the Department of Justice. In Europe, the office of the Director General of Competition is administered by the European Commission. The International Competition Network, the UNCTAD, OECD, and BRICS are some international forums where member competition agencies cooperate with each other. Unlike the West, the competition agency in India, i.e., the Competition Commission of India is a fairly young regulator, but it has evolved some very sound jurisprudence and capacity to frame anti-trust issues, keeping in view the economic development of India.

In 2020, the Tokyo Olympic Committee added a new word to its motto, which now reads “Faster, Higher and Stronger – Together”, signifying the nature of sports as a unifying factor that demonstrates the determination to excel even while facing an unprecedented health crisis. As we brace ourselves to meet the novel challenges of economic slowdown resulting from the pandemic, it is more important than ever before that the world unites to fight back. All players have to come together to meet the objective of making markets competitive. This will ensure that the fruits of economic benefits are distributed equitably and post-pandemic economic recovery is expedited. Therefore, a robust competition authority, with the capacity to make appropriate and timely corrections in the market through enforcement and advocacy, is the mainstay for fostering a competitive environment in the economy.

(The author is Adviser, Competition Commission of India, the views are personal)

RESEARCHING THE WORLD OF WORK

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Abstract

How to do research or investigative journalism is still not a part of the undergraduate curriculum. Thinking that working people are the real wealth of a nation, suppose you are keen to research what is happening to industrial labour in the Indian context. Here, I review research methods of scholars in foreign countries as well as India that will be useful for strategizing research in the fourth year of the NEP Bachelor's programme or after completing your two-year Master's education.

Ethnography

Inductive research which studies specificities for arriving at analytical generalization, not generalizations of statistical inference and significance, is the most effective way of conducting research on industrial labour relations. Qualitative methods have an especially comfortable home in the ethnographic and field study traditions of anthropology and sociology that emerged in the 19th century.

In a context where there are few accounts detailing workers' experiences at the factory floor level in terms of resistance, accommodation and adaptation, a few researchers have documented the labour process in automobile factories through pure ethnography, i.e. 100 per cent participant observation.

For example, Graham (1995) wrote on the basis of her work experience for about six months within a Japanese auto transplant in the US, viz., Subaru-Isuzu that made trucks and cars. Both, management and workers of this assembly plant, were unaware that they were under observation by the author who made her way into the factory through the arduous and long drawn workers' selection and training process and kept covert records of her experience and those of her co-workers. The book as the analysis of these records was drawn from informal discussions with 46 female and 104 male co-workers (including 6 male managers and 4 Japanese trainers) throughout the factory, from day-to-day participant observation of co-workers and worker-management interactions and from the documents distributed by the factory. It may be noted that when the author joined the factory to work in the Trim and Final department, she did not appear to be an outsider at the factory as she was not a novice to the rigours of factory life. She had earlier worked as a factory worker, cook, waitress, service worker and union organizer before becoming an Assistant Professor of Labour Studies at Indiana University. This, and the fact that many of her co-workers in the factory had some higher education, meant that there were few cultural barriers for her to overcome. However, the past experience of blue-collar work, as the author says, did not prepare her for working on a modern assembly line which was both physically demanding and emotionally draining. Delbridge (1995) did what Graham (1995) did but only for a month and as an overt participant observer. Juravich (1985) is another brilliant example of cent-per-cent ethnography, which

exposes the incoherence in management even as workers create sense out of chaos, and critiques the non-Japanese managerial styles in the US, through participant observation (ethnography) by working as a mechanic in a non-union American subcontracting firm. He points out ethnographic participative observation as the best way of understanding labour process and worker perceptions; the world of shop floor workers is so different from the petty-bourgeois (middle class) professional world that it is difficult to understand without first-hand experience of the “thickness” of everyday factory life.

Non-Ethnography

Sometimes a single-site case study approach based on non-ethnographic, mainly interviews with workers, can also get more or less the same results as pure ethnography can generate.

A good example in this regard is Fucini and Fucini (1990) who did two years of research at a Mazda assembly plant in the US. They did over 150 in-depth interviews with workers and managers, union representatives, local government officials as residents. While the management of this factory sanctioned their project initially, it completely withdrew midway through the research of these authors. The authors kept the names of the workers secret as the employee handbook forbade the workers to talk to the press or outsiders without the company approval. Luck in getting access is very important to generate a good quality study such as Humphrey (1982) who says this about his Brazilian experience: “...the best way to find out more about auto workers would be to go to the plants and examine the situation there. Good fortune enabled me to gain access to two assembly plants owned by one of the major auto companies, and I spent some months interviewing production workers and management in them” which facilitated documentation of management strategies and working conditions.

Many researchers do qualitative cum quantitative study of one or two or three or four or five factories either snap-shot way or longitudinal way.

For example, Chalmers’ (1989) classic study of labour conditions among subcontractors under lean production in Japan, was based on 5 case studies of medium and small firms in conjunction with (a) discussions with key representatives of employer organizations, government agencies, unions, union federations, academics, political parties, etc.; (b) plant visits; (c) personal interviews; and (d) unstructured interviews and discussions.

Some researchers gather information through telephonic interviews. Garrahan and Stewart (1992) studied Nissan workers through interviews at their homes: “Out of preference for conducting in-depth interviews away from the demands and possible interruptions of manufacturing work, we visited 19 Nissan workers at their homes. Since the interviews with each worker typically lasted two hours, we are grateful to them for their time and hospitality, and patience. In acknowledging their assistance, mention must also be made of the respect for confidentiality and the decision we made to refer to them by pseudonyms.”

Some researchers use tape recorders to record interviews and place little reliance on the use of field notes. And some researchers use multiple instruments to gather information through a survey within a single case study.

For example, for their study of workplace transformation and employee well-being in a very large American manufacturing organisation, Anderson-Connolly et al. (2002) did this: “Data were collected in three forms. First, in-depth interviews and focus groups were conducted with a randomly selected sample of about 90 employees, representing all job categories and management levels. A key purpose of these interviews and focus groups was to gain a sense of the range of workplace changes employees and managers had experienced and to assess the nature of their reactions to the lay-offs and to the restructuring programme. Second, a variety of data...were collected directly from company records. Finally, a questionnaire was mailed in early 1997 to 3700 randomly selected and currently employed workers who had worked for the division for at least two years. Of these, 2,279 valid questionnaires were returned, representing a 62 percent return rate. Respondents were each paid US \$20 for participating. For the second wave, questionnaires were mailed in late 1999 to the 1965 first wave employees who were still employed at the division. Of these, 1244 returned surveys giving a return rate of 63 per cent. Analysis was conducted on those respondents with no missing values.”

In order to capture the changing or evolving labour relations over time, especially the attitudes of workers to lean production, longitudinal case studies based on surveys of workers are considered more effective than snap-shot case studies (Kitay and Callus, 1998). The best example in this connection is the study by Rinehart et al. (1997). Their study was about the CAMI car plant in Ingersoll, Ontario, Canada, a joint venture of General Motors and Suzuki during the period 1989-96. The researchers gathered data from a variety of sources. The key data source, which enriched and enlivened their research was information obtained from panel surveys collected over four periods six months apart.

Survey methods also have been used to track working conditions under lean production or Japanese management practices. Lewchuk and Robertson (1996; 1997) made a statistical generalization through a survey of 5,635 Canadian auto workers in assembly plants and 1,670 auto workers in the components sector. Workers were asked questions about their workload, health and safety conditions, empowerment and relations with management. In order to test the hypothesis that Japanese industrial and labour practices could be easily implanted in non-Japanese environments, Florida and Kenney (1991) and Kenney and Florida (1995) identified the universe of Japanese transplant assemblers and suppliers and administered a mail-out survey instrument to the establishments/enterprises. They proved the hypothesis with a response rate of 37 per cent. The survey was supplemented by site visits and personal interviews with executives, present and former shop floor workers, engineers, trade union officials and state and local government officials as an additional check against respondent bias.

A major problem with auto labour relations research concerns the confusion regarding causation—the so-called identification problem, the problem of identifying dependent and independent variables. In this regard, there is the ‘deductive approach’ of doing large or small surveys of plants within a country or across countries and testing hypotheses regarding the relationship between variables using factor analysis, regression analysis, etc. Obviously

quantitative research of this type is based on measuring so many variables like competitive strategy, worker satisfaction, quality of employment, changing mix of core and peripheral workforce, HRM, workplace democracy, flexibility of work organization, skills, etc. Obtaining consensus in measuring is not easy. The success of research here depends on the data obtained from the plants according to the way the variables are measured. A problem with this research is that it is distant from the workers' perceptions and feelings.

Case Study Versus Survey

There is some debate as to whether a case study or survey is appropriate for doing labour relations research. A case study, unlike a survey, is considered most suited for answering the following questions: Why do some firms change more effectively than others? Why is change possible in some cases, and not in others? What determines the pace of change? (Humphrey et al., 1998). A case study refers to the investigation of a single case or a relatively small number of naturally occurring (rather than researcher created) cases whereas a survey is defined as the simultaneous selection for study of a relatively larger number of naturally occurring cases. However, there is really no clear cut notion of "how relatively small" the multiple case study could be vis-a-vis the survey. Further, as Hammersley (1992) argues, the distinction between case study and survey is actually a matter of degree, and "it involves a trade-off between the likely generalizability of the information obtained on the one hand, and the detail and accuracy of data about particular cases on the other. And the position along this dimension depends on our goals and the resources available to us." A criticism against the survey is that answers people give to questions may not be true but this may equally arise in the case study.

It can be argued that all quantitative data is qualitative, and how "good" the field data actually collected is and the interpretation of data is governed by fieldworker-respondent relationships. There is no such thing as unbiased observation. Every act of observation we make is a function of what we have seen or otherwise experienced in the past (Phillips and Pugh, 1994). A well-accepted potential weakness of case study is that its findings may be exceptional or unrepresentative of the universe of cases. This weakness can, however, be moderated by selecting cases in such a way as to cover some of the main dimensions of the heterogeneity in the population of cases.

The Indian Context

In the Indian context, Parry (1999) has lamented the poverty of the ethnographic and non-ethnographic fieldwork tradition in the study of industrial labour in the formal as well as informal sector.

Detailed accounts of industrial work regimes and of social relations on the shopfloor are largely missing. Moreover, there is a need to pay more attention to the ideas and interests of the workers themselves.

Breman (1999a) has extended this lamentation as follows: "Much of the work on Indian industry has been based on survey data, questionnaires and formal interviews....there was seldom much personal contact with the workforce....no researcher has ever actually worked in a factory. What is also lacking is documentation that originates from the workers themselves—diaries, biographies and even oral histories...Nor has research usually focused on the workplace, often no doubt as a

consequence of management suspicion combined with some skepticism about its tangible benefits to the company.”

As regards research on industrial labour in the informal sector, Breman (1999b) has further extended the lamentation thus: “The contents of leading professional journals, such as *The Indian Journal of Industrial Relations* and *The Indian Journal of Labour Economics*, show that their one-sided interest (in formal sector employment) did not change until recently....This neglect was due both to lack of knowledge regarding the lower levels of urban economy and to lack of affinity with methods of research that could increase that knowledge....The landscape of informal sector employment has been charted mostly by anthropologists doing qualitative rather than quantitative research...I believe...estimates of the magnitude of formal sector employment to be exaggerated. The trend is clear: a decreasing percentage of industrial workers lead a formal sector existence....In my judgement, today, it is no more than 10 to 15 per cent. The remainder can be divided roughly into two categories: first, those who are unprotected, regular workers in small-scale workshops, under constant threat of dismissal (approximately 60 per cent of workers) and, second, casual workers and nomadic labour (approximately 25-30 per cent of the total).it therefore seems obvious that future research into industrial labour relations should focus on this populous middle category of labour.”

The great Dutch field worker in Western India, Breman, is absolutely right but he must know that entering factories to do ethnographic work is impossible as even Assistant Labour Commissioners in Mumbai are having tough time to enter the factories and there are incidents of them getting beaten up; nevertheless, he would be somewhat pleased to know that the very recent research on labour in global as well as national production chains in India and elsewhere is a somewhat welcome development to overcome the above lacunae in industrial labour research in India (see, for example, Posthuma and Nathan eds., 2010).

More specifically, in relation to research on Indian automobile workers, the gripping study by Suresh (2010) in South India “draws from two rounds of field studies carried out in the Chennai region in December 2006 and in October 2007. The first round focused on the labour institutions in Tamil Nadu and tried to investigate how the reforms-induced-adjustments have affected the labour regulations mechanism in the state. The sector-specific data on the automobile supply base was collected during the second round. The field interviews covered respondents from nearly all constitutive segments of this integrated industry including the components manufacturing firms of different sizes and capacities, the workers of different employment statuses, industry associations of varying sub-sectors and strength, and the trade unions.”

And the wonderful study by Awasthi et al. (2010) on the workers in the auto-components cluster in Punjab in Northern India was based on a field survey of 183 micro-small-medium enterprises and around 125 workers. As they say: “One cannot claim the study to be inclusive unless opinion of the workers, who constitute the prime focus of the study, is sought. The focus group discussion (FGD) method was employed to collect information from the workers. In all, nine FGDs were conducted during the course of the study...These FGDs were conducted in their habitat to provide them a free environment so that they do not hesitate to open up. In all,

124 workers participated in the FGDs (usually, 12-15 workers were present in each FGD).”

My own study was conceived much earlier than these studies, in the late 1990s but its execution in the field suffered hellish problems of non-response and delay, which I have elaborated at length in Bose (2013). On reading this, you will realise how challenging it is to do labour research in India although the ivory tower mainstream economics looks down upon labour economics or labour studies as a rock bottom branch of economics! The former is, of course, dominated by males, and the latter, females.

The survey study by Basant et al. (1999) on 57 small-scale auto-components firms and just 25 workers therein is based on data collection work subcontracted to an institution called Green Eminent Research Centre (ICRG), Ahmedabad. Management professors such as these, who are busy as bees with multiple research projects on hand and with sizable budgets, also subcontract manual part of arduous research work to management consultants such as AT Kearney.

The study by Humphrey et al. (1998) is a pathbreaking single case study of Crompton Greaves (not an automobile company) and its first-tier suppliers in India. These scholars were given a royal welcome by the CEO of this organization who was once a student of them in the University of Sussex. They could do an exceptionally rigorous study as they could get unlimited access to the top management of the Crompton Greaves company and to the managers of its first-line suppliers. But theirs was completely a managerial perspective as they did not care to interview the union and the workers; had they done so, they would have got a different story.

Survey method was used and research assistants were deployed for primary collection of data and information from enterprises, employees and trade unionists in different industries by Sharma and Sasikumar (1997) in their revealing study of “impact of structural adjustment on labour” in the district of Ghaziabad.

Some new trend setting labour research in India, which uses survey methods for hypothesis testing is by Deshpande et al. (2004) and Ota (2005). The former is about labour flexibility and is an imitation of the research methodology propounded by Standing (Undated) concerning the ILO initiative on Enterprise Labour Market Flexibility Survey, and the latter, an imitation of Osterman (1994) about workplace transformation in terms of flexibility, innovative HR practices, etc.

To my mind, a most useful research based on fieldwork about women workers in electronics, plastics and other industries in Delhi and Mumbai in neoliberal times has been done by feminist activists and academics such as Gandhi and Shah (Undated); Shah et al. (1999); Chhachhi (1998; 2004), and Gandhi (2007). Sociological and anthropological research work of this type that Breman would approve of, was an inspiration for my own fieldwork in Delhi NCR (India).

Some Pointers For Choosing Research Study

All said and done, the choice of research strategy is, in the final analysis, a function of the research questions posed. For example, if one is interested in changing employee attitudes, longitudinal surveys are most appropriate whereas if one is interested in gaining deep insights into the processes that generate conflict and cooperation, then intense observation of the relations between management and employees in one workplace will be most appropriate.

In doing research with auto components firms, for example, neither a single case nor a survey may be appropriate for a single researcher who then will have to select at least 20 firms to say something worthwhile. Thus, Posthuma (1991) focused on 21 Brazilian exporting auto components firms and conducted interviews only with the management; production workers were not interviewed. She was humble enough to recognize the limitation thus: “the results presented here reflect the perspective of managers and technical personnel, and not those of workers, and thereby provides a possible source of bias in the results presented in this thesis.”

Mapping the employment conditions in a production chain involving layers of subcontracting, as I had done for my PhD, requires the choice of a middle path between a single case study on the one hand and a large survey on the other which is nothing but choosing multiple cases at each stage of the production chain. In other words, this work covered many main assembly firms along with their numerous first-tier, second-tier and third-tier suppliers.

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RESEARCH PAPERS

EFFECTIVENESS OF MAHATMA GANDHI NATIONAL RURAL EMPLOYMENT GUARANTEE ACT: A COMPARATIVE STUDY BETWEEN UTTAR PRADESH AND ANDHRA PRADESH

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Abstract

This paper aims to analyse the effectiveness of the Mahatma Gandhi National Rural Employment Guarantee Act by undertaking a comparative study of its performance in the states of Uttar Pradesh and Andhra Pradesh, from 2007-2012. The paper evaluates the Act by looking at parameters such as structural capacity and mechanisms, financial planning, registration of households and issue of job cards, women participation, SC/ST representation, employment and wage conditions and work priority and execution.

Introduction

The National Rural Employment Guarantee Act, was passed by the Government of India in the year 2005 and was later renamed as the Mahatma Gandhi National Rural Employment Guarantee Act. It came into effect on 2nd February 2006, in 200 backward districts of India, to provide at least 100 days of employment, every financial year, for any adult member of a rural household who is willing to do unskilled manual labour, at the statutory minimum wage. The Act guarantees that work will be made available to anyone who demands it within 15 days of submitting an application and the failure to do so would result in the state being accountable to pay an unemployment allowance.

Hailed by the Government as the world's largest public works programme, MGNREGA aims to ensure a basic minimum livelihood and alleviate poverty. It differs from other poverty-related schemes as it treats employment as a 'right' wherein it contains provisions for minimum wages, worksite facilities, mandatory participation of female workers (who comprise a third of the total participants) and equal wages for men and women. Emphasising the process of decentralisation, the programme is anchored on the principles of transparency and grass-root democracy and devolves significant power to Panchayati Raj Institutions in planning and implementing these works and tracks accountability through social auditing.

In the financial year 2007-08 scheme entered its second phase and was extended to 130 districts and by 1st April 2008, MGNREGA had expanded to the entire rural area of the country. Being applicable in all districts of the country, the effectiveness of the scheme however does vary enormously across states, with possible factors being the political commitment, lack of accountability, corruption and nepotism, and economic hardships currently being faced by the state.

To study the disparities in effectiveness and implementation of the programme across the country, the paper seeks to provide a comparative study of the performance of MGNREGA in the

states of Uttar Pradesh and Andhra Pradesh, based on the latest data available from 2007-12. By looking at various factors such as structural capacity and mechanisms, financial planning, registration of households and issue of job cards, women participation, SC/ST representation, employment and wage conditions, work priority and execution, it seeks to analyse the reasons which made the programme a success (or a failure) in the respective states.

Literature Review

Banik et al. (2021) analysed in their paper the reasons why the Act is successful in some states and not in others. According to their paper, the success of MGNREGA relies on the readiness of the government to implement it. In Tripura and Chhattisgarh, political will, efficient implementation, and proper supervision of the programme resulted in it being successful. On the other hand, the government of Rajasthan displayed a lack of commitment as it was unwilling to provide jobs under the programme and people were told they could request work only when it was available. In many villages in Uttar Pradesh and Bihar it was found that people could not find work despite demanding it. In some of the relatively richer states like Punjab and Haryana, with low demand for MGNREGA work, the government had not even formed the rules or issued job cards to implement the scheme seven years since the inception of MGNREGA.

Hashmi (2017) concluded from his survey conducted in five villages of Ballia district in Uttar Pradesh that immoderate political interference, nature of work and ignorance about the Act among workers are some of the reasons behind the dismal performance of MGNREGA in the area. According to his paper, while Uttar Pradesh had succeeded with respect to higher participation of SC's in MGNREGA, the same was not reflected in the survey district where only 14 percent of the SC population was part of MGNREGA employment during 2013-14. Given the economic distress of the SCs, there was a visible depressing trend in terms of participation of the disadvantaged sections of the population.

Ratan et al. (2016) in their comparative study of Bangarmau block, Unnao district of Uttar Pradesh, found huge disparities between the objectives and the actual outcomes of MGNREGA in the district. Though the programme succeeded in providing some monetary aid and short-term employment at some point at the same time it failed to prevent distress migration of the rural poor to cities and in empowering marginalised sections of the society. Along with the poor performance of the scheme they also discovered the malpractice of proxy employment in the villages.

Lakshmi et al. (2018) conducted a study in the Krishna District of Andhra Pradesh wherein most of the respondents stated that they were getting less than 100 days of employment during a year. While most of them were satisfied with the programme in reference to the wages paid, timings of work and behaviour of the officials, they were unhappy with the process of application, work allotment, and working conditions in the field.

Johnson et al. (2009) concluded in their paper that the Andhra Pradesh government set a high standard for transparency with the public dissemination of information on state-level NREGA participation and identified seven lessons from the data including the rapid growth of NREGA in AP despite its stagnant appearance, easy access to job cards contrary to what is stated in the mainstream press and similar wages existing across caste and gender but not across districts.

Methods

This paper conducts a comparative study of MGNREGA between Uttar Pradesh and Andhra Pradesh. The study is solely sourced from secondary data retrieved from academic and scholarly articles as well as government published journals. Audit reports of both the states have also been used to prove the effectiveness of MGNREGA.

Data

There is a lack of uniformity between the two state reports. In the reports of Uttar Pradesh many of the sections that were to be reported by the government were missing while on the other hand Andhra Pradesh's audit report was quite detailed.

The last reports that were available for the states of Uttar Pradesh and Andhra Pradesh were that of the years 2016 and 2012 respectively after which no auditing or investigation was done which creates a lacuna of the availability of data to compare with recent years. The Uttar Pradesh government has neither submitted a section on Completion work rate nor sufficient evidence regarding the execution of works along with its pictures, which under the MGNREGA act is an important requisite. Therefore researchers were unable to comment upon the progress of tasks undertaken in UP.

The data available on the official site of MGNREGA was quite different from the findings that we had achieved. Therefore, the data needs to be checked independently to confirm the findings as certain discrepancies were found between the data available on site and the audit report.

Results and Discussion

Despite the overall achievement of MGNREGA the impact of the program has not been uniform. A study by ESID (the Effective States and Inclusive Development) suggests that differences in states' capacity and commitment lead to variation in employment outcomes. States with higher capacity in terms of economic, and human resources can reach their potential beneficiaries (ESID, briefing no.1). The commitment of the states also plays an important role in the success of the implementation of such schemes, since it ensures initiative, transparency, preparation and efforts. These two factors are also interlinked, and these factors are highly dependent on the political and economic factors of the state, which varies across the country.

To understand the factors how the scheme can be implemented effectively, or why there is a stark difference between the performance of the poor and rich state. We have taken two states from each category Andhra Pradesh, with higher capacity and income and Uttar Pradesh, with lower capacity and income.

Overall the implementation of the MGNREGA act has been effective in AP but not in UP. All the factors have been stated based on the report of the Computer Auditor general of India and supported by arguments made by various scholars.

1) Structural Capacity and mechanisms

As per the requirement of the act, under section 12 both the states formulated the scheme in 2006, and set up the SEGC (State employment Guarantee Council) which is headed by the Chief

Minister, which takes care about the monitoring and implementation of the act. However, in the report provided by the auditor till 2012, SEGC of both the states have been practically non-functional (in UP the council only met once or twice, and in AP only eight times).

- **Mechanisms in both the states**

There was an acute shortage of the functionaries in UP ranging from 6% to 53%. The table given below reveals the shortfalls:

Levels	No. Of Units	Functionaries	Requirement	Sanctioned Posts	Persons in Position	Shortfalls in %
GP	51,980	Gram Rojgar Sevak	1	48,946	41,491	15
		Technical Assistant	Not Posted			
Block	820	Additional Programming Officer	1	783	704	10
		Account Assistant	1	792	660	17
		Technical Assistant	1	7931	5398	32
		Computer Assistant	1	745	554	26
Districts	72	Works Manager	1	72	49	32
		IT Manager with Computer Assistant	1	53	35	34
		Accounts Manager with accounts assistant	1	47	22	53
		Training Coordinator	1	49	36	27
		Coordinator Social Audit and Grievance redressal	1	273	256	6

(Source: Information provided by Additional Commissioner, MGNREGS Cell)

The state government of AP has developed an IT system AP MGNREGS MIS, which is a customised application software (RAGAS) in partnership with TCS. Use of technology is one of the major reasons that AP has achieved a greater level of transparency compared to the state of UP. This MIS system also has EGS transaction processing system. It helps in avoiding post payments of EGS transactions.

The state has also developed several mobile-based applications for muster rolls, verification, and work measurements etc.

- **Information and Educational initiatives**

One of the reasons that the implementation of the scheme has been so successful in AP is because they have undertaken measures to educate the beneficiaries and technical assistants by making films on a variety of topics— helping people understand their rights, training different levels of functionaries etc.

However, the training programme adopted by the UP Govt. wasn't up to the mark. Though the state government sanctioned Deen Dayal Upadhyaya Institute of Rural Development in Lucknow to conduct the training programmes for the chief functionaries, it was recorded that only 235 out of 771 sessions were held. These shortcomings were in spite of the fact that the government had allotted Rs 19.88 crore to be spent on the training. A huge amount of Rs 7 crore was unspent as of March 2012 which wasn't even refunded to MoRD.

The MGNREGA scheme was implemented in UP without any effective distribution of information to the illiterate masses. During the initial phase the government distributed a few pamphlets but that wasn't sufficient for vigorous circulation of information. The beneficiaries were not well aware about the scheme and hence were unable to avail the opportunities that could have been made available to them under this scheme.

2) Financial Planning

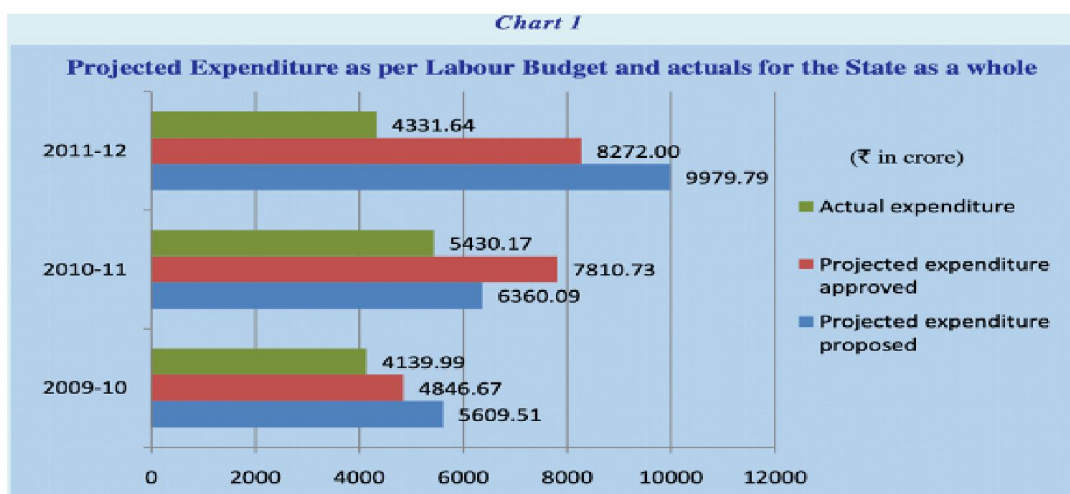
- Utilisation of labour budget

In AP from the year 2009-2012, the projections of the labour budget (proposed as well as approved) were found to be far higher than what was actually incurred. There was a discrepancy of 85%, 69% and 52% from the year 2009-10, 2010-11, and 2011-12 respectively (this has been indicated in the graph below). The projections of the labour budget have been inflammatory in both the states AP and UP.

An amount of Rs 22,174.35 Crore was spent under this scheme against the sanctioned amount of Rs 22,567 crore during 2007 -2012. The labour budget was not completely utilised. There was lack of maintenance of proper accounting records and instances of funds being released which were more than what the labour budget prescribed for the GPs personal interests.

The Labour budget was not based on realistic estimates. The GoI reduced the projected person days from 46793 crore person days to 42000 crore person-days. At the same time the budget of 26 districts was affirmed in excess of their labour budget. There were 8 districts whose projected person-days were increased by 8.38 lakh. Therefore, the district's projected person-days, their budget and the person days approved by the government of India did not really complement each other.

All the above mentioned factors point towards the lack of planning of fund transfer by the State Government and the corruption that prevails within the local institutions.



Source: Computer Auditor Report no. 5, 2009-12, Andhra Pradesh

Year	Approved Labour Budget	Releases of funds by		Total Releases	Expenditure	Releases excess (+) / short (-) over expenditure
		GoI	State			
2007-08	2,500.00	1,648.31	200	1,848.31	1,898.25	(-) 49.94
2008-09	4686.4	3,944.50	300	4,244.50	3,576.06	(+) 668.44
2009-10	7380.1	5,318.88	550	5,868.88	5,906.04	(-) 37.16
2010-11	8779	5,266.58	499.9	5,766.48	5,627.85	(+) 138.63
2011-12	8787.24	4,355.75	483.97	4,839.72	5,166.15	(-)326.43
Total	32,132.74	20,534.02	2,033.87	22,567.89	22,174.35	(+) 393.54

Source: MGNREGA cell, Lucknow

There have also been incidents where both state governments have diverted the money on other schemes. As per the MGNREGA act, diversion of funds to state-sponsored programmes is not allowed. For example, in 2013, Rs.66.95 lakhs from MGNREGA funds were diverted to Indira Jala Prabha project in AP, a state-sponsored programme. Data relating to UP's diversion of these funds has not been clearly stated.

3) Registration of households and issue of job cards

In AP, as of 2012, job cards have been issued to 124.24 lakh households which is about 35% of the total state population. As per the MoRD's Operational guidelines 2008, household means a nuclear family consisting of father, mother and children. However, the auditor report suggested that in four of the districts of AP some households were large (consisting of 20 or more members). The households have not been segregated into nuclear families which adds financial burden on such families with only one job cards to nuclear families by the end of 2012-13. Auditing is required to confirm this, however, it indicates that the government was prepared for immediate response, something that the UP state government lacks.

Household size	Ranga Reddy	Anantapur	Vizianagaram	Nalgonda
	(Number of households)			
20 or more members	40	6	8	10
10 or more, but less than 20 members	751	420	407	804
Maximum household size	65	30	39	28

Source: Computer Auditor Report No. 5, 2009-2012

District	Percentage of photographs not available with job cards verified in audit
Nalgonda	33
Ranga Reddy	40
Kurnool	61
Anantapur	35
Visakhapatnam	38
Vizianagaram	25

Source: beneficiary survey, computer auditor report no.5, 2009-2012, AP

It was found that in both the states records of job registration were not maintained at Gram Panchayat level, only at Mandal and state level. This highlights the need to make the ground level institutions stronger and more accountable.

The beneficiary survey by the audit team suggests that in both the states the complete procedure of providing job cards was not followed. Though the act mandates affixing of

photographs on job cards; In both the states it was found that this was not carried out duly. In AP, an average of 38.7% of job cards from 6 districts did not have photographs affixed along with the update.

In UP, to reach out to more people no door to door surveys were conducted to identify the people willing to register for job cards. There were about 1298 households that did not receive the job card despite registration thereupon denying them the assured employment opportunity. Photos of 960 beneficiaries were not affixed in the job card register, leaving room for providing employment to someone else instead of the beneficiary who registered.

4) Women participation and SC/ST representation

This parameter was an important determinant of successful implementation of the act in AP as opposed to UP. One of the auxiliary objectives of the act is to empower women (33% reservation for women) and foster equity through SC/ST representation. In the gender-based analysis it was clear that women's participation in AP was far greater than in UP. In AP women were given employment as Technical Assistants, Assistant Programme Officer, Field assistant, etc and women's participation is almost half the total number of employees. This showed that there was no discrimination in terms of employment opportunity for women labour in AP.

Table 21 – Gender-wise beneficiary profile for the State

Financial year	Total Number of beneficiaries provided employment	Number of male beneficiaries	Number of female beneficiaries	Percentage of female beneficiaries to the total beneficiaries
2009-10	1,15,14,361	52,90,557	62,23,804	54
2010-11	1,18,96,383	54,44,190	64,52,193	54
2011-12	91,24,569	41,14,368	50,10,201	55

Source: AP MGNREGS MIS Data

However, in UP, it was seen that the representation of women was very low ranging from 14% to 22% in the years 2007 to 2012. It was especially low in the year 2007-08 at about 14%.

Year	Total Employment days Generated (in lakh)	Women Employment Days generated (in lakh)	Representation of Women (in %)
2007-08	7.8	1.06	14
2008-09	12.53	2.68	21
2009-10	20.56	4.07	20
2010-11	26.79	7.35	27
2011-12	27.17	5.7	21
Total	94.84	20.86	22

Source: Information collected during audit, UP

In Southern India, this trend has been noticed that women's participation exceeds 50%. In North India however, there have been several socio-cultural barriers that have led to males being more benefited from schemes like MGNREGA.

The reason behind this low participation of women (in UP) was that the female labourers were not allowed to work on lands of farmers who weren't from their caste or community. They were not encouraged by their male relatives and people from various castes equated allowing women to work outside their house with loss of dignity and honour to their family (Dutta. S, 2017). In Sitapur district, women who wanted to participate in MGNREGA faced hostility from both panchayats and male relatives. Their names were excluded from job cards, as they were considered "socially unacceptable" and "weak" to work (Dutta. S, 2017).

There is also clear evidence in terms of SC/ST representation. In AP, the government has been able to ensure a representation of 25% for SC workers and 15% for ST workers in the workforce. This is because AP provided strong backing to the poor; they have done this by promoting and forming Sharma Shakti Sanghas which unionizes poor and workers from lower caste. In 2010, in Anantapur district, a lower-caste worker filed a case against the technical assistant about the compensation of the work. The police took the case seriously under the Harijan Atrocities and the TA was dismissed (Dutta. S,2017).

In UP however, the representation from lower castes remains low. Reason for this is that for the longest time the state has been ruled by upper caste political parties. The interests of the lower castes were highlighted only upon the coming of the BSP (Bahujan Samaj Party) However, the party did not work actively to achieve its goal of fostering social equity. It did not change the bargaining power of the poor, any benefits from the presence of BSP were received by middle income Dalit groups. The poor Dalit families have been excluded from any benefit (Dutta. S, 2017). Lack of political competition, rampant corruption, and embedded hierarchy of caste and class are the major reasons for the hindrance of effective implementation of MGNREGA in UP.

5) Employment and wage conditions

In the AP audit report, the beneficiary survey states that 91% of people indicated that work was allotted to them within 15 days of registration. About 41% people said there was a delay in payments to about 1-2 months and only 33% beneficiaries received it in 15 days. Also, the act requires the state government to pay the households for working days exceeding 100 days. As per the report from 2009-2012, considering an average wage of Rs.60 per day, in four districts of AP the figure comes out to be Rs.259.72 crores. UP report does provide with any such data, however, presumably the numbers are quite high for it. The states have not taken active initiatives to disperse the wages on time (almost Rs 21.59 crores of wages are un-dispatched in the post office).

The audit analysis of AP also revealed that there were very low daily wages in some households. In four districts there were about 367 households in 2011-12 that received wages below Rs.20 per day. There is a strong possibility that these low daily wages are because of the improper measurement of work by the technical assistant.

Similarly, the scheme in UP began with a daily wage rate of Rs 58 in 2007 and was later enhanced to Rs 100. It was increased further to Rs 120 in the year 2011. Labourers in 17 GPs ,6 KPs and 2 ZPs were paid at a rate lower than the one prescribed, leading to a less payment of wages amounting to around Rs 4.50 Lakhs. There were a few districts where the wages to the labourers paid without measuring the work done which eventually resulted in an irregular payment of Rs 22.29 lakh. It is actually contrary to what the MGNREGA states to achieve.

- 100 days of household work

The number of households provided work for 100 days or less from 2009-12 has been summarised as below (as per the AP MGNREGS MIS web report).

Table 8 – Profile of employment provided for the State as a whole

Year	No of HHs working	No of HHs completed 100 days	No of HHs completed 75 - <100 days	No of HHs completed 50 - < 75 days	No of HHs completed < 50 days	% of HHs completed 100 days	% of HHs completed 75 - < 100 days	% of HHs completed 50 - < 75 days	% of HHs completed < 50 days
2009-10	60,78,121	13,21,149	5,77,644	8,44,335	33,34,993	22	9	14	55
2010-11	61,97,244	9,66,291	6,26,303	10,16,242	35,88,408	16	10	16	58
2011-12	49,98,709	9,74,256	4,81,539	7,33,844	28,09,070	19	10	15	56

Source: AP MGNREGS MIS web reports

The guaranteed 100 days of employment was provided only to 2 % to 8% of the workers during 2007-2012. Average number of days of employment provided to the worker by the districts in the years 2007 to 2012 was 18 to 29 days.

Year	Total registered households	Person days projected	Person days generated	Avg person days generated by households	Households provided 100 days of employment (in %)
2007-08	20,82,834	3,52,96,651	3,78,04,198	18	8.25
2008-09	32,47,837	8,52,11,377	7,31,53,726	23	6.72
2009-10	35,07,287	13,05,99,855	10,04,10,522	29	6.48
2010-11	37,05,112	14,04,82,827	9,20,86,159	25	6.08
2011-12	39,45,337	11,13,69,282	7,41,05,334	19	2.14
Total	1,64,88,407	50,29,59,992	37,75,59,939	23	5.62

Source: Computer Auditor Report No.4, 2013

The Act guarantees that work will be made available to anyone who demands it within 15 days of submitting an application and the failure to do so would result in the state being accountable to pay an unemployment allowance.

One of the major issues of execution that both the states lacked was unemployment allowance. As per August 2012 data in AP, out of 1,789 beneficiaries who applied for an allowance only 3 have received the payment. It was impossible to verify the details of who qualified for the allowance, due to lack of registration maintenance at Gram Panchayat level.

According to the information available at the official site of MGNREGA, UP did not provide employment to many workers within the stipulated time limit which would have resulted in a payment of an unemployment allowance, but an amount of Rs 5.12 crore remained unpaid by the state government. Furthermore, workers from over 25 villages were denied payment of an allowance when they demanded it.

Year	No. of Districts	Days for Unemployment Allowance	Days For the Allowances Paid	Amount Paid	Amount payable equal to wage rate Rs 100/120 per day
2009-10	71	13629	71	0.07	13.55
2010-11	72	367239	147	0.18	367.09
2011-12	72	109099	0	0	130.91
				Total	511.55

Source: www.nrega.nic.in

Aristocracy still prevails in UP. It's one of the main reasons that work against the interest of the backward people. The elites of the society still rule the government associations and deny access to public development funds to the state.

6) Work priority and Execution

Environmentally friendly works have been given priority in AP. Their highest proportion of work is in water harvesting and conserving. The table below clearly shows almost half of the manual work is still under progress.

Table 18 – Profile of works status

	Anantapur	Ranga Reddy	Vizianagaram	Nalgonda	Total
Completed	83,243	23,115	84,524	66,988	2,57,870
Closed	60,150	12,662	38,912	39,695	1,51,419
In progress	94,909	77,315	80,045	1,43,833	3,96,102
Others	126	294	43	161	624
Total	2,38,428	1,13,386	2,03,524	2,50,677	8,06,015

Source: Analysis of electronic data provided by the Department

The Audit of UP noticed that around 5.56 lack out of 15.55 lack i.e 35.75% of the work executed was of low priority and only 9.16% of the work that was given highest priority was executed. The percentage of the implementation of lowest priorities work in the year 2007-12 ranged from 12% to 79% .


Inadmissible works— such as construction of earthen roads, large bridges and beautification of ponds, distribution of plants— valued at Rs 25.60 crore approximately were also executed. Whereas 19 works were abandoned and 51 works were left incomplete after incurring a heavy amount of 18.19 lakh and 1.76 crores respectively. It was also noticed that the work the state government claimed to have completed according to the records, was not actually executed although a payment of 7.21 lakh was already made, in case of UP.

One of the objectives of the Act is to create durable assets for the villagers. The MGNREGA Act states that after the execution of the work, the data of working and closing projects must be substantiated with images (AP audit report provides images). UP on the other hand has not provided any images in their audit. This clearly points that the government is lacking in bringing more transparency to the auditing process.

The pictures below from the Audit report (of AP) show the quality of the work achieved under MGNREGA.

- Land development

It was noticed that in almost 60% of the work undertaken in AP lands remained unfit for cultivation, despite being declared as completed.

	
<p>Work ID: 131805005004061615 GP/Mandal/District: Pendekallu/Tuggali/Kurnool Expenditure incurred: ₹49,501 <i>Work remained incomplete due to non-removal of stones</i></p>	<p>Work ID: 121723209007011086 GP/Mandal/District: Bhoginipalle/Raptadu/Anantapur Expenditure incurred: ₹11,166 <i>Land covered with pebbles, and is unsuitable for cultivation</i></p>
	
<p>Work ID: 152053603002040156 GP/Mandal/District: Gadda Mallaiah Guda/Yacharam/Ranga Reddy Expenditure incurred: ₹5,29,897 <i>Land remained uncultivated, due to non-removal of juliflora</i></p>	<p>Work ID: 232864922020010672 GP/Mandal/District: Bettathanda/Neredcherla/Nalgonda Expenditure incurred: ₹49,195 <i>Land remained uncultivated due to non-removal of stones/pebbles</i></p>

Source: Computer Auditor Report No.5, 2009-12, AP

- Water conservation and drought-proofing

In about 51 works construction of tanks, bunds etc., were not uniform. Top width was not maintained which could lead to slippage during rainy seasons.

	
<p>Work ID: 131812802002012770 GP/Mandal/District: Pothugal/Krishnagiri/Kurnool Expenditure incurred: ₹8,71,582 <i>Bunding was completed without any revetment</i></p>	<p>Work ID: 232935613011050110 GP/Mandal/District: Varkala/Chintapalli/Nalgonda Expenditure incurred: ₹16,61,684 <i>No sluice was constructed and the opening was closed by construction of a wall</i></p>
	
<p>Work ID: 030312020024050029 GP/Mandal/District: Gunnempudi/Butchayyapeta/Visakhapatnam Expenditure incurred: ₹24,49,785 <i>Sluice completely closed due to soil erosion, defeating the very purpose of irrigating the ayacut</i></p>	<p>Work ID: 121712613012010417 GP/Mandal/District: KK Agraharam/Bukkarayasamudram/Anantapur Expenditure incurred: ₹44,984 <i>Weakening of bund, due to soil erosion</i></p>

Source: Computer Auditor Report No.5, 2009-12, AP

Conclusion

India's growth rate has been among the fastest in the world. With growing urbanisation and development, the disparity between the rich and the poor has been increasing. The rural population is mostly dependent upon agrarian and allied activities. The rural population presently suffers the most from poverty and deprivation, especially for households with unskilled labour. Rural development, therefore, becomes vital for sustainable growth. MGNREGA as a scheme plays an important role to address this issue, acting as a safety net.

AP has been awarded the first position in transparency, and the district of Anantapur has bagged the second position in the effectiveness of the programme. AP has its problems, but in comparison to UP, it has been more effective. It was clear that it was because UP lacked factors like— more transparency, use of technology, political competition, socio-economic barriers and accountability. There has been a clear difference in the way auditing of both states was done; UP lacked the data of certain parameters, which made it impossible to perform a comparison.

The auditor report of AP from 2012 states that more than 50% of the work were in progress. However, the official website of MGNREGA from 2017 onwards showed AP with a 98% completion of work rate. There are certain discrepancies in data available on the secondary sources. Hence, these findings need to be checked independently.

In the overall impact assessment of MGNREGA, the data clearly states that there has been an improvement in the consumption expenditure, better educational opportunity for children from the participation of women, and an overall increase in the standard of living.

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IMPACT OF KYOTO PROTOCOL IN CONJUNCTION WITH WORLD DEVELOPMENT INDICATORS ON CARBON EMISSIONS BY JAPAN

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Abstract

Greenhouse gas (GHG) emissions have been on a continuous rise since the industrial revolution, increasing manifold over the past few decades. This has posed a severe threat to environmental balance and all forms of life on earth. With the subsequent rise in environmental concerns, a number of climate conservation treaties have been adopted and enforced to curb GHG emissions by different countries over time. One such attempt had been made through the Kyoto Protocol in 1997 to set up binding and non-binding targets on signatory countries to curb GHG emissions over its first commitment period (till 2012).

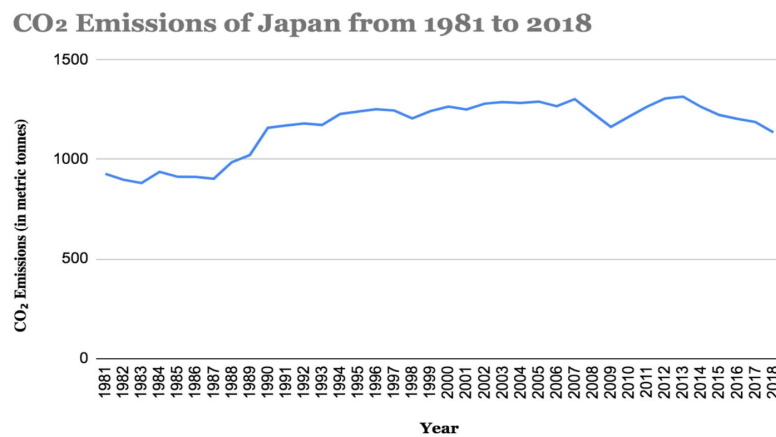
The effectiveness of the Kyoto Protocol, however, has been brought under scanner over time, with many countries not opting to sign up for the second commitment period of the treaty. Along this parallel, the objective of this paper is to determine, (a) the impact of the World Development Indicators on carbon emissions by Japan and, (b) the effectiveness of Kyoto Protocol (post-enforcement) in the country of interest. The paper is also aimed at checking if Japan exhibits the Environmental Kuznets Curve (EKC) in the time period 1981-2018.

For purposes of the same, time series regression analysis is employed through Ordinary Least Squares (OLS) estimation. The presence of pure autocorrelation found thereafter is corrected using the Prais-Winsten estimation (thereby rendering it as a case of feasible generalized least squares estimation). The results reveal that research and development expenditure exerts a significant influence on carbon emissions, while GDP does not exert any significant influence. Further analysis also reveals the statistical insignificance of the effectiveness of the Kyoto Protocol in Japan's context. The corollary analysis on EKC is followed up in the paper.

Introduction

Carbon Dioxide (CO₂) is a greenhouse gas (GHG) that plays an equally important role in maintaining a habitable temperature on Earth. While its atmospheric constitution is approximately 0.04%, the onset of the Industrial Revolution has led to a dramatic rise in energy-driven consumption, thereby resulting in increased emissions. The consequent disruption of the global carbon cycle has stirred up climate change and climate conservation concerns, beginning with the Rio Summit (1992), which aimed to reconcile world economic development with environmental conservation.

Along the parallels of the Rio Summit, the Kyoto Protocol was adopted in 1997 (and enforced in 2005) with the objective to reduce greenhouse gas emissions, while setting emission targets (binding and non-binding) based on the signatory party's assigned amount. In this context, the research paper seeks to quantitatively examine the impact of world development indicators and the enforcement of the Kyoto Protocol on the level of carbon emissions by Japan for the period 1981-2019.



Japan ratified the Kyoto Protocol in 2002, becoming the 74th country to ratify the treaty. However, Japan's stance on the effectiveness of the Kyoto Protocol has changed significantly over the years, wherein the country has expressed its intention to withdraw from the second commitment period of the treaty. On account of the same, this paper pursues to employ descriptive World Development Indicators (published by the World Bank) to quantify their influence (if any) on carbon emissions, while also checking for the effectiveness of policies like Kyoto Protocol in reducing the levels of carbon dioxide emitted by Japan.

The paper also proposes to check for the hypothesized relationship between per capita income and various indicators of environmental degradation (carbon emissions, in this paper), as depicted by the Environmental Kuznets Curve (EKC). The EKC hypothesis states that at the growing stage of economic growth (income) the environmental degradation increases, but after reaching the economic growth at certain levels the quality of the environment slowly starts to improve. Therefore, an attempt of this paper will be aimed at detecting whether income inequality first rises and then falls for Japan as economic development progresses.

Objective

This paper aims to examine the factors underlying trends in carbon emissions as exhibited by Japan, and the effect of the Kyoto Protocol on the same. The paper also intends to find out if the Environmental Kuznets Curve (EKC) is projected by the carbon emission trends in Japan during 1981-2018.

The choice of Japan for the study strongly relies on the objective to assess the extent to which the third-largest economy in the world (in terms of nominal GDP) realizes its liability in curbing

carbon emissions in view of common but differentiated responsibilities. The Kyoto Protocol has been widely adopted and ratified in many countries. Moreover, the effectiveness of a policy intervention of such a large measure has an important role in the reduction of carbon emissions. As such, an analysis of the role of the Kyoto Protocol is undertaken in the paper. World Development Indicators are included in the study to measure the simultaneous effect of development processes (as measured in terms of R&D expenditure and GDP per capita) on overall carbon emissions instead of other nationalized and localized units of measurement to maintain consistency of analysis across the body of literature available.

In support of the research objective, it was observed in the available literature that the simultaneous impact of development indicators and policies/ treaties on carbon emissions for individual countries are seldom looked into. As such, assessing the overall success of a policy measure/ treaty with regards to environmental conservation gets undermined for individual countries. The concurrent effects of other economic development measures have a potential to offset or positively impact the level of carbon emissions by any country. The Environmental Kuznets Curve depicts one such relationship between economic growth indicators and environmental degradation, the existence of which is tested in the context of Japan for the study.

Literature Review

The existing body of literature reveals that studies have analyzed the various parameters that affect carbon emissions across countries and time.

An empirical investigation of the impact of the Kyoto Protocol on CO₂ emissions using a sample of 170 countries was conducted over the period 1992-2009 in [3] using difference-in-difference estimators with matching to address the endogeneity of the policy variable. The main results of estimating a panel data model indicated that Kyoto Protocol commitments have a measurable reducing effect on CO₂ emissions, indicating that a treaty often deemed a 'failure' may in fact be producing some non-negligible effects for those who signed it.

Another study [1] examined the complex effect of research and development (R&D) intensity on carbon dioxide (CO₂) emissions in the G-7 countries between 1870-2014 using a non-parametric panel data model. The relationship between R&D and CO₂ emissions was shown to have largely been negative, with the main exception being the period between 1955 and 1990. The findings suggested that there is a role for investment in R&D in addressing climate change.

In [13], an attempt was made to statistically test the contrasting hypotheses on the emission of SO₂, O₂ and energy consumption in Japan and China for the last few decades. The basic model to estimate EKC used an indicator of emissions of environmental pollutants as the dependent variable, and per capita income and its squared term as the explanatory variables. The study revealed that the EKC has an inverted U-shape only in the case of SO₂ emissions in Japan, even though it is possible that China is on the flat turning portion of the EKC in the case of SO₂. Both Japan and China are on the rising portion in the case of CO₂. The results suggested that there are variables other than GDP per capita affecting SO₂ and CO₂ emissions, and are likely to have a serial correlation at least in the case of Japan.

In effect, there have been extensive studies on the trends of historical emissions and how the same has increased over time. It is also observed that panel data studies have attempted to quantify the level of effectiveness of climate conservation treaties such as the Kyoto Protocol (2005). Another broad area of study has focussed on quantifying how social and economic indicators affect the level of carbon dioxide emitted by groups of countries over the years.

Statement of Hypothesis

This paper aims to study the following hypotheses,

Hypothesis 1: The Kyoto Protocol which came into effect in 2005 was able to reduce CO₂ emissions in Japan.

Hypothesis 2: Japan exhibits the hypothesized relationship between environmental quality and GDP growth, as suggested by the Environmental Kuznets Curve (EKC). Various indicators of environmental degradation tend to get worse at the growing stage of economic growth, but after achieving certain levels of economic growth, the quality of the environment slowly starts to improve.

Data and Econometric Methodology

The study is retrospective in nature wherein the quantitative data for territorial carbon emissions (in metric tonnes), GDP per capita (in current US Dollars) and R&D expenditure (in million Dollars) are collected from secondary sources like the World Bank, Organization of Economic Cooperation and Development and Global Carbon Atlas. A sample data of 38 years is selected from 1981 to 2018 for the analysis. This time period was selected in order to study the impact of the Kyoto Protocol (enforced in 2005).

The paper employs time series analysis as a statistical methodology for the analysis. Given the assumptions of the Classical Linear Regression Model, the method of Ordinary Least Squares (OLS) estimation and Prais-Winsten estimation (PWE) was used to experiment with different models as follows:

1. $\ln\text{CO}_t = \beta_0 + \beta_1 \ln \text{GDP}_t + \beta_3 \ln \text{RD}_t + \beta_4 \text{D}_t + \text{u}_t$ (OLS)
2. $\ln\text{CO}_t = \beta_0 + \beta_1 \ln \text{GDP}_t + \beta_2 (\ln \text{GDP}_t)^2 + \beta_3 \ln \text{RD}_t + \beta_4 \text{D}_t + \text{u}_t$ (OLS)
3. $\ln\text{CO}_t = \beta_0 + \beta_1 \ln \text{GDP}_t + \beta_2 (\ln \text{GDP}_t)^2 + \beta_3 \ln \text{RD}_t + \beta_4 \text{D}_t + \text{u}_t$ (PWE)

where,

D = 0, for the time period, when the Kyoto Protocol is not enforced, D = 1, for the time period, when the Kyoto Protocol is enforced, $\ln\text{CO}_t$ is the natural logarithm of carbon dioxide emissions, $\ln\text{GDP}_t$ stands for the natural logarithm of per capita income, $\ln\text{RD}_t$ stands for the natural logarithm of expenditure on research & development, β denotes the regression parameter, u_t is an error term and t refers to the t^{th} time period.

Empirical results reveal the model with the best fit to be chosen as the main functional form for analysis, which is checked and remedied for the loss of efficiency due to the presence of serial autocorrelation.

Empirical Results

The empirical results of the three different regression models are reported as follows:

Table 1 : Dependent variable: $\ln\text{CO}_t$

Variables	(1) OLS	(2) OLS	(3) PWE
constant	2.670*** (0.5709)	18.17*** (4.647)	9.107 (5.682)
$\ln\text{GDP}_t$	0.1168** (0.04757)	-3.200*** (0.9895)	-1.085 (1.189)
$(\ln\text{GDP}_t)^2$		0.1645*** (0.04904)	0.05722 (0.05889)
$\ln\text{RD}_t$	0.2737*** (0.08353)	0.3756*** (0.07926)	0.2598*** (0.09420)
D_t	-0.06933** (0.02736)	-0.1217*** (0.02862)	-0.02731 (0.03678)
Observations	38	38	38
Adj. R ²	0.8464	0.8820	0.9250

Standard errors in parentheses

* significant at the 10 percent level

** significant at the 5 percent level

*** significant at the 1 percent level

Model 3 (PWE) was chosen as the main functional form for analysis as it offers sufficiently high adjusted R² and remedies for the loss of efficiency of the OLS estimators due to autocorrelation. It also includes the squared term of $\ln\text{GDP}$, (an essential part of the study to test the EKC hypothesis for Japan) which is not present in model 1 (OLS).

Model 3 (PWE) is also corrected for the problem of autocorrelation which was a significant problem in model 2 (OLS).

The empirical results of regression model 3 are stated in a tabular format as given below:

Table 2 : Regression results for Model 3 : Prais-Winsten Estimation, using observations 1981-2018 (T = 38); Dependent variable: $\ln\text{CO}_t$
 Rho = 0.828814

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>	<i>p-value</i>	
constant	9.10715	5.68158	1.603	0.1185	
$\ln\text{GDP}_t$	-1.08530	1.18923	-0.9126	0.3681	
$(\ln\text{GDP}_t)^2$	0.0572187	0.0588871	0.9717	0.3383	
$\ln\text{RD}_t$	0.259823	0.0941953	2.758	0.0094	***
D_t	-0.0273068	0.0367825	-0.7424	0.4631	

*** significant at the 1 percent level

Statistics based on the rho-differenced data:

Residual sum of squares	0.041395	Standard Error of regression	0.035418
Explained sum of squares	0.577716	Adjusted R-squared	0.925034
R-squared	0.933138	P-value(F)	6.39e-36
F(4, 32)	1324.151	Durbin-Watson	1.8240351
rho	0.042556		

According to the regression results, it is found that the relationship between the dependent variable, $\ln\text{CO}_t$, and the independent variables - $\ln\text{GDP}_t$, $(\ln\text{GDP}_t)^2$, D_t is insignificant. The finding that the per capita income is not a significant factor affecting the emissions of CO2 in Japan is also consistent with the findings of the recent literature [7], [8].

However, it is also found that $\ln\text{RD}_t$ as an explanatory factor has a significant relationship with the dependent variable, $\ln\text{CO}_t$. In other words, expenditure on research and development is a significant factor affecting the carbon emissions in Japan.

The R^2 shows the amount of observed variance explained by the model, which in this case is 93.31%. The adjusted R^2 is 92.50%, and it is observed that the Root Mean Squared Error is 0.035 (close to zero), implying that the model is a good fit.

The F-test results in a p-value of 6.39×10^{-36} , implying the observed R^2 value is reliable and depicts a statistically significant relationship between the dependent variable and all the explanatory variables combined.

Testing the EKC hypothesis:

If Japan exhibits the hypothesized relationship between environmental quality (carbon emissions) and GDP growth, then the relationship between the two variables will be an inverted U-shape, as is supposed in the EKC hypothesis. Thus, β_1 should be positive and β_2 should be negative, i.e., at the initial stage of economic growth (income) the environmental degradation should increase, but after reaching a certain level of growth, the quality of the environment tends to get better.

However, as per the sample regression function in this model, it was found that the coefficient of $\ln\text{GDP}$ (-1.08530) is negative and the coefficient of its squared term (0.0572187) is positive. Hence, we reject the hypothesis for the given sample that the relationship between the environmental indicator and GDP per capita gives an inverted U-shape EKC. The result that Japan does not exhibit the hypothesized EKC relationship in the case of carbon emissions for the period 1981-2018 is consistent with the findings of [13].

Analysis And Implications

In accordance with the econometric results, it is evident that per capita income is not a significant factor affecting the emissions of CO₂ in Japan. This finding is consistent with the fact that governments have little incentive to reduce emissions on their levels [7].

Japan decided not to renew their commitment for the second period of the Kyoto Protocol. The reasonable worry about Japan's actions, however, is that moving away from a second commitment period for the protocol would signal developed countries to abandon the binding system of emissions cuts and adopt a system with voluntary measures only. This makes it more difficult to build a binding agreement requiring sufficient carbon cuts. So, this passive enforcement mechanism of environmental policies like the Kyoto Protocol does not have any significant impact.

The fact that Japan does not exhibit the EKC is consistent with the finding in [7] that the statistical analysis on which the environmental Kuznets curve is based is not robust. There is little evidence for a common inverted U-shaped pathway that countries follow as their income rises. The only robust conclusions from the EKC literature (see [8]) appear to be that concentrations of pollutants may decline from middle income levels, while emissions tend to be monotonic in income.

The significant impact of research and development expenditure on carbon emissions is attributed to the fact that carbon emissions may decline simultaneously over time in countries at widely varying levels of development. Given the poor statistical properties of most EKC models [7], it is hard to⁶⁹ come to any conclusion about the multidimensional roles of the variable across time and countries.

Scope And Limitations

Using time-series data instead of panel data does not allow for comparison of results of the study between the countries which have ratified the Kyoto Protocol with those which haven't. Moreover, the results of the effectiveness of the Kyoto Protocol cannot be generalized for other countries from a single study using time series analysis.

The present study thoroughly studied three factors namely R&D expenditure, GDP per capita, and Kyoto Protocols that influence the CO₂ emission levels and this study was strictly limited to macro level investigation. The breakdown of various components affecting CO₂ emissions and other variables influencing the effectiveness of Kyoto Protocol were not investigated. Therefore, there is a need for more micro level studies to identify the factors that influence Japan's CO₂ levels.

The model has a presence of collinearity between $\ln GDP_t$ and $(\ln GDP_t)^2$ since both of these variables are functionally related, However, $(\ln GDP_t)^2$ is a nonlinear function of $\ln GDP_t$ and does not violate the assumption of no perfect collinearity. Furthermore, the model has a high R^2 and adjusted R^2 . Hence, this regression model is fit to be estimated in the usual manner.

Recommendations

There is a need to make the agreement global and effective in dealing with cost uncertainty. Developing countries can however have “non-binding” targets, given the importance of their ascent to development . This could be achieved through emission trading, which can be made possible only if the emission levels are below the set target. Such a scheme will in effect, provide countries incentives to reduce their GHG emissions.

Alternatives to the Kyoto Protocol should also be explored. One such measure could be the implementation of carbon tax and carbon permits. Both carbon taxes and permit systems aim to reduce the total quantity of carbon emissions by creating a price for emitting CO₂ pollution. Countries should also indulge in collaborative research and development of new technologies. A regular followup protocol will help in developing credible incentives for participation and enforcement mechanisms.

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HOW TO PLAN AN EFFICIENT VACCINATION DRIVE: THE VACCINOMY MODEL

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Abstract

The coronavirus pandemic has always emphasized on identifying quicker ways to produce and distribute vaccines across the globe. However, besides producing and procuring vaccines, they need to be executed efficiently so that a country can immunize its population against the contagious disease well within the target days. The process of strategizing an efficient vaccination drive requires authorities to take into consideration numerous variables, from virology to economics, making it a very ambiguous process. This ambiguity calls for a standard resilient model on “How vaccination drives should be strategized to achieve maximum economic efficiency”. Our paper presents one such model where we have planned vaccination drives to minimize import cost and maximize export surplus by identifying relevant variables.

Keywords: D-Days, Reproduction number, Degree Centrality, Virulent Mutation

Introduction

The ongoing pandemic has taken a toll on the national health systems of countries across the globe. As cases increased exponentially throughout the world, governments of various nations had to impose lockdowns but the introduction of vaccines proved to be a beam of comfort. However, almost all the vaccines manufactured till date require two doses of administration. The World Health Organization (W.H.O.) recommends a time lag of 1-3 months between the two doses and the countries are left with the discretion to choose the exact number of days, depending on their target number of days to complete the vaccination drives.

The model in this paper comments on the optimal duration of the vaccination drive (n), the time period (t) between two vaccine doses as well as the policies the government of a country can implement, such that imports are minimized and exports are maximized. This ‘Vaccinomy’ model can be applied to any novel communicable disease which governments might have to deal with in the future. Thus, the nature of this model is pragmatic and resilient.

Defining the Model

Before the subject country decides upon an optimum interval between two doses of vaccine, it is important to decide upon the number of days, which we call D-days, in which it wants to conduct the vaccination drive, including both the first dose and the second dose drive. This is because if the disease is spreading rapidly then the subject country needs to accelerate the vaccination drive. Otherwise, it can conduct the drive at a moderate rate. Thus, *D-days have an inverse relationship with the rate of spread of disease.*

The quantification of D-days has been divided into two parts:

- (i) Estimation of the rate of spread of the disease
- (ii) Calculation of D-days

(i) Estimation of the Rate of Spread of the Disease

In epidemiology, the rate of spread of a novel disease is quantified by the reproduction number of the disease or the R number of the disease. R number of a disease is the expected number of cases directly generated by one case in a population where all individuals are susceptible to infection. However, in reality, some part of the population is naturally immune to the infection. Thus, a basic reproduction number or R number will not be a good criterion for the model.

There exists another R number in epidemiology known as the effective reproduction number, denoted by R_t which takes this problem into account. R_t is the average number of new infections caused by a single infected individual at time t in the partially susceptible population. Thus, we will be using R_t to find out the rate at which disease will spread in the subject country if the vaccination drive does not happen. But R_t is calculated every week and this model requires a single solid rate of spread on which D-days will be based.

Thus, the following steps are used to solidify the R number:

Step 1. Find the mean value of R that can be anticipated to follow during the vaccination drive

Firstly, there is a need to identify time periods in the subject country, since the disease came into existence when the social conditions were similar to one expected to prevail during the vaccination drive. Then we need to find the mean value of R^t for the subject country for this time period. This R number can be an estimate of the rate of spread the country can anticipate. However, as infections are continuously mutating, there is a possibility that a new variant would emerge during the vaccination drive which might increase the rate of spread. To make D-days resilient to such a possibility, there is a need to find the probability of such a possibility and the projected R that can follow.

Step 2. Find the probability of the introduction of a virulent mutant in the subject country.

The probability of emergence of a new variant in the subject country depends on the probability of two independent events:

1. Probability of a virulent mutation- It is exogenous to this model and needs to be borrowed from the domain of virology.
2. Probability of introduction of the mutant in the subject country- This depends upon the degree to which the subject country is globally connected. The greater the connectivity, the greater are the chances that a virulent mutant can arrive from some other country.

To calculate this probability, we consider the notion of the “degree centrality” of a country.

$$\text{Degree Centrality} = \frac{\text{Number of links that the country has}^1}{\text{Total number of countries} - 1}$$

As these two events are independent, the resultant probability (P) is the multiplication of the aforesaid probabilities. Thus,

$$\begin{aligned} & P(\text{emergence of a new variant}) \\ &= P(\text{emergence of virulent mutation}) * P(\text{introduction of the mutant}) \\ &= P(\text{emergence of virulent mutation}) * \text{Degree Centrality} = P \end{aligned}$$

Step 3. Find a projected R that one can anticipate in case a new mutant emerges during the vaccination drive

We denote the new projected R by R', which is exogenous to this model and needs to be borrowed from the domain of epidemiology. The reproduction number will be just R' in the extreme case that a new variant will emerge. On the other hand, the reproduction number will be simply R in the extreme case that no such variant will emerge. Thus, to find the expected reproduction number prevalent in the country, we find the weighted average of R and R':

$$E(R) = P' * R + P * R'$$

where,

E(R) = Expected value of R in the vaccination period

P = Probability of emergence of new variant in the subject country

P' = Probability that no new variant emerges = 1-P

(ii) Calculation of D-Days

After calculating the expected reproductive number, we now calculate the number of days (N) it will take to spread the infection to M% of the population. Here, the aim of the authorities is to finish the vaccination drives (both first and second) before it infects M% of the population². To find this, let us assume that R=2 i.e. every infected person spreads the disease to 2 more persons. Thus, we can draw the following network:

1 For the data on a number of links, simply count the number of countries that are connected through a direct passenger flight or at most have one intermediate stop in between.

2 For COVID-19, M is generally around 70 to 80%. Thus, the government will try to conduct both vaccination drives before the infection spreads to 70-80% of the population.

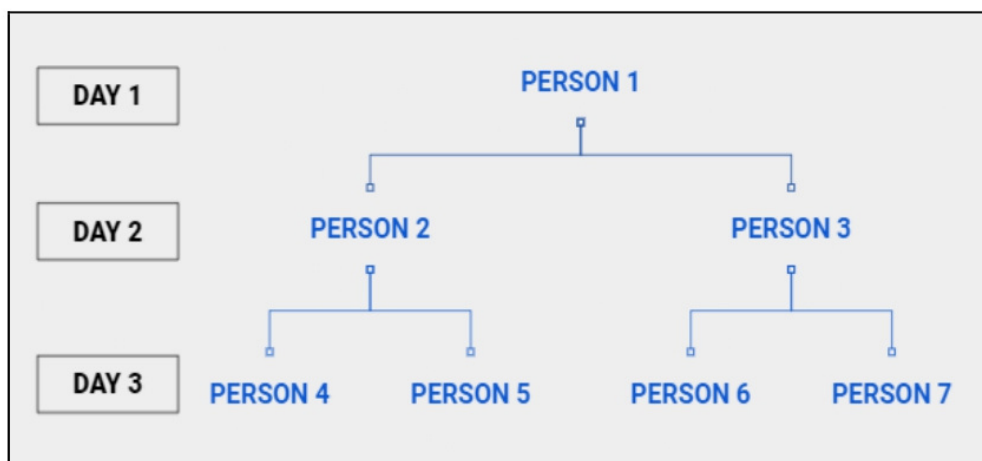


Fig 1. Network of spread of disease when R=2 and A=1

Assuming that there is a single case initially (A=1), there will be 3 cases at the end of day 1, 7 cases at the end of day 2 and so on. Thus, a more general form of the cumulative number of cases can be expressed below in the form of a geometric progression:

$$A * R^0 + A * R^1 + A * R^2 + \dots + A * R^N = \frac{M}{100} * p \quad (\text{Assuming } R > 1^3)$$

where,

A = Initial cases in the country when disease was first introduced

R = Reproduction number (assuming R is the number of distinct people the person transmits the disease to)

p = Total population of the country

The above calculation gives N, which is the approximate number of days it will take for M% of the population to get infected by the disease. Then, we multiply N by 'h' assuming it roughly takes h^4 days for a person to become positive after coming in contact with an infected person. This gives an approximation of D-Days, in which it wants to conduct the vaccination drive, including both the first dose and the second dose drive.

Note: A country examines changes in the reproductive number (R) during the vaccination period and revises the D days accordingly. Therefore, the policy can be switched as per the circumstances.

The Vaccinomy Model

The above calculation has given a rough estimate of when the government should target to finish its vaccination drive against the novel disease. We can now move forward with the mechanism to describe how the authorities can decide the interval t between the first dose of vaccine and the second dose of vaccine such that:

3. If R is less than 1, it would mean that one infected person will not transfer the disease to one more person. Thus, the disease will die out and there would be no situation of a pandemic.

4. For COVID-19, h is generally 4-5 days.

- (i) Vaccination drives finish within the target D-days,
- (ii) Surplus/Exports of vaccines get maximized,
- (iii) Import of vaccines get minimized
- (iv) Cost of the imported vaccines gets minimized

Before moving forward, we define some constants and assert the assumptions used in the model. Usually, whenever a new vaccine gets launched, the vaccine producers recommend a range for the interval of days 't' that needs to be kept before someone gets the second dose of the vaccine. Let us assume that this range is $c1 < t < c2$, where $c1$ and $c2$ are the minimum and the maximum number of days recommended. Throughout the model, this condition must be satisfied in order to consider implementing a policy.

Further, we assume that the subject country is endowed with the production capacity to manufacture vaccines domestically. However, the principle of microeconomics suggests that the production capacity cannot be increased in the short run. Thus, the maximum rate at which the vaccines are manufactured domestically can be assumed to be r vaccines/day.

In order to achieve herd immunity, epidemiologists usually suggest that 70% of the population should be vaccinated. But the model assumes that the subject country is aiming to vaccinate at least M proportion of the population till or before D-days. So, M is constant in our model and is at the discretion of the policymakers.

In addition, the model assumes that the subject country has an efficient supply chain so that the supply of vaccines is equal to the demand of the vaccines. Thus, the rate at which vaccine doses are produced is equal to the rate at which the vaccine doses are executed i.e. *the rate of vaccine execution* = r .

Let us suppose the number of days it will take to conduct the first dose drive is 'n'. Thus,

$$n = \frac{M * Total Population}{r} = \frac{Mp}{r}$$

Similarly, the number of days it will take to conduct the second dose drive will also be n .

Let us imagine that a person is getting his first dose on the last day of the first drive and he is supposed to get the second dose t days later which in turn will be the last day of the second dose drive. Thus, the maximum number of days it will take to conduct both the drives will be $n+t$ days. The authorities are supposed to finish the drive in D-days. So, ideally $n+t$ should be less than or equal to D-days. If that is not the case, what can the authorities do? We consider various cases to accommodate all possibilities.

Case 1. $n+t > D$

Here, the time it will take to finish both the drives is greater than the target number of days. So, the authorities must follow a policy such that $(n+t)$ decreases to the point where it becomes equal to or less than D . They can do so by either following a strategy to decrease n or following a strategy to decrease t .

Note: We consider only the strategies that try to equalize $n+t$ to D . The strategies that try to achieve $n+t$ less than D are only accentuated versions of the following.

Strategy 1. Decreasing the number of days 'n'

Here, we will assume that the authorities cannot make any changes to t due to the constraint $c1 < t < c2$.

The number of days to conduct any drive, n , can be decreased by increasing the rate of vaccine execution. However, the rate of vaccine execution is maximum through domestically produced vaccines. Thus, the authorities would be required to import vaccine doses to increase the rate of vaccine execution beyond r .

Let us assume the authorities import x vaccines per day to decrease n sufficiently such that $n+t = D$. Thus, the new rate of vaccine execution will be $r+x$ per day and the new number of days to conduct any drive is n' . So, we have

$$n' = \frac{Mp}{r+x}$$

Now consider if the first dose drive and the second dose drive are conducted successively then the number of days to finish both the drives will be $2n'$. But if $2n' > D$, then the authorities will be required to start the second dose drive before it finishes the first dose drive by $(n'-t)$ days.

Thus, the import function in this case will constitute of two parts:

(i) As the number of imported vaccines per day is x , the total number of vaccines imported due to an increase in r during the first dose drive = $x*n' = I_1(\text{say})$

(ii) Similarly, total number of vaccines to be imported due to an increase in r during the first dose drive = $x*n' = I_2(\text{say})$

(iii) During the period $(n'-t)$ days when both drives will be happening simultaneously, the country would require $2(r+x)(n'-t)$ vaccines per day. But the maximum vaccine doses the country can produce domestically is r . Also, we have already computed the number of vaccines imported due to increase in r . Thus, the total number of vaccines imported due to simultaneously conducting drives is $2*(r+x)*(n'-t) - (n'-t)*r - 2(n'-t)*x = r*(n'-t) = I_3(\text{say})$

Finally,

$$\text{Import Function} = I_1 + I_2 + I_3 = n'x + n'x + (n' - t)r = (2x + r)n' - tr$$

Differentiating this with respect to n' gives $(2x+r)$ which is greater than zero implying that the import function is an increasing function. As n' decreases, the import function decreases. *This indicates that the authorities have done the right thing by choosing to decrease n .* Here the export surplus will be zero because the vaccination drive is ending in exactly D days.

Now, consider $2n' < D$ i.e. the number of days to conduct both the drives is less than D-days so the country has the discretion to conduct both the drives successively.

Also, since $D = n'+t$, this means $2n' < n'+t$ or simply, $n' < t$. i.e. the number of days it takes to conduct any drive is less than the interval between the two doses. Therefore we get,

$$\text{Import Function} = 2n'x$$

$$\text{Export Function} = (t - n')r$$

Differentiating the export function with respect to n' gives $-2r < 0$, implying that it is a decreasing function in n' . So as n' decreases, exports increase which is a good enough indication that the *subject country has done the right thing by decreasing n'* .

Differentiating the import function with respect to n' gives $2x > 0$, implying that it is an increasing function in n' . So as n' decreases, imports decrease which again is an indication that *the subject country has done the right thing by decreasing n'* .

Policy Recommendation: The orders for importing vaccines must be placed months before it is required as imported vaccines are needed from the very first day of the vaccination drive.

Thus, this strategy should be followed only when the subject country has enough time to do the bilateral deals in advance with the vaccine manufacturers.

Strategy 2. Decreasing the time interval 't'

Here, we are assuming that the government cannot change n due to some underlying reason. Thus, t is decreased by $D-(n+t)$. So we define $t'=D-n$, where t' is the revised time interval between two doses.

Now, we have $D = n + t'$

Again, we subject this strategy to the cases when $2n > D$ and when $2n < D$.

If $2n > D$, then the subject country needs to start the second drive $(n-t')$ days before it finishes the first drive. So,

$$\text{Import Function} = (n - t')r$$

Differentiating it with respect to t' gives $-r < 0$ implying that the import function is a decreasing function in t' . So as t' decreases, imports increase, which is the opposite of what we want. *Thus, this is a mild indication that the government might not have done the right thing by decreasing t* .

In this case, clearly, there will be no export surplus.

If $2n < D$ i.e. the number of days to conduct both the drives is less than D-days, then the country

can conduct both the drives successively. Also, $2n < n+t'$ or $n < t'$ i.e. the number of days it takes to conduct any drive is less than the interval between the two doses.

Clearly, the import function will be zero and exports will be:

$$\text{Export Function} = (n - t')r$$

Differentiating it with respect to t' gives $-r < 0$ implying that the export function is a decreasing function in t' . So as t decreases, exports increase, which is what we want. *Thus, this is an indication that the government has done the right thing by decreasing t .*

Thus, in this case, the government will be able to eliminate imports while at the same time produce export surplus.

Policy Recommendation: This strategy can be used if the authorities want to buy some time to do bilateral deals with the producers as the imported vaccines will be needed only t days later.

Note: These are two extreme cases when the authorities can change only one variable. In real life, the authorities can change both n and t in such a way that $n+t=D$ in order to satisfy their needs. Comparing the two strategies, Strategy 2 will be better than Strategy 1 as it requires fewer vaccines to be imported and thus, lesser cost.

Case 2. $n+t = D$

This is a special case wherein there is no need to change either t or n to achieve the condition we needed to, in the previous case.

Again, consider a situation in which the cumulative time period to conduct both the drives successively exceeds D -Days i.e. $2n > D$. Then, the authorities will be required to start the second dose drive before it finishes the first dose drive $(n-t)$ days before.

Thus the import function will be:

$$\text{Import Function} = (n - t)r$$

Moreover, exports will be zero in this case as there is no surplus left.⁵

Note: When $n=t$, $D=2n$. This is defined as the equilibrium condition wherein there are zero imports and zero exports.

Now, consider a case when $2n < D$.

Then, clearly, there will be no imports and the export function will be:

$$\text{Export Function} = (D - 2n)r = (t - n)r$$

⁵ The country can try to create Exports by reducing t further if the condition allows but the Imports will be generally greater than exports. Thus, the trade balance is likely to be negative.

Policy Recommendation: It is a highly unlikely but an ideal situation for the subject country. When $2n > D$, the subject country will have enough time to do bilateral deals with producers to get the imported vaccines for $(n-t)$ period. While if $2n < D$, there is no need to import any vaccines.

Case 3. $n+t < D$

In this case, the time it will take to finish both the drives is less than the target number of days. Again, authorities need not alter either n or t to achieve their targets.

If $2n > D$, then similar to previous cases, we have:

$$\text{Import Function} = (n - t)r$$

$$\text{Export Function} = (D - n - t)r$$

$$\text{Trade Balance} = \text{Exports} - \text{Imports} = (2n - D)r > 0$$

On the other hand, if $2n < D$, then, clearly, imports will be zero and

$$\text{Export Function} = (D - 2n)r$$

$$\text{Trade Balance} = \text{Exports Function} = (D - 2n)r > 0$$

Policy Recommendation: This is a plausible scenario. The subject country will be able to attain positive and equal trade balance (in absolute terms) in both the situations but will not have to incur any cost in the latter case when $2n < D$.

Finding the Import Portfolio

To calculate the optimal number of vaccines of each type that should be imported per day, we set up a cost minimization problem.

We define the total cost function (C) in the following two parts:

(i) The Variable Cost (VC) - Assuming that there are K types of different vaccines available to the subject country to import, the variable cost function will be the summation of the product of the number of vaccines and its corresponding price. Therefore,

$$VC = P_A * A + P_B * B + \dots + P_K * K = \sum_{i=A}^K (P_i * i)$$

Where,

P_i = Price of type i vaccine

A = number of type A vaccines

B = number of type B vaccines

K = number of type K vaccines

(ii) The Fixed Cost (FC) - This is the fixed cost incurred to import vaccines in a country, irrespective of the number of vaccines imported. In the short run, this cost cannot be changed. Hence,

$$FC = F \text{ (say)}$$

So, the total cost function is:

$$C = VC + FC = P_A * A + P_B * B + \dots + P_K * K + F = \sum_{i=A}^K (P_i * i) + F$$

To find the optimal import portfolio, we set up a minimization problem subject to the constraint that the total number of imported vaccines must be equal to x (as defined above in the model).

So we have the following problem:

$$\begin{aligned} \text{Minimize } C &= P^A * A + P^B * B + \dots + P^K * K + F \\ \text{Subject to } A + B + \dots + K &= x \end{aligned}$$

The corresponding Lagrange function will be defined as:

$$\mathcal{L} = [P_A * A + P_B * B + \dots + P_K * K + F] + \lambda (x - A - B - \dots - K)$$

Where, λ is the Lagrange multiplier.

Differentiating \mathcal{L} partially with respect to the number of vaccines of different types as well as λ , and setting it equal to 0 gives us the following equations:

$$\frac{\delta \mathcal{L}}{\delta A} = 0 \dots \dots \text{(equation 1)}$$

$$\frac{\delta \mathcal{L}}{\delta B} = 0 \dots \dots \text{(equation 2)}$$

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$$\frac{\delta \mathcal{L}}{\delta K} = 0 \dots \dots \text{(equation K)}$$

$$\frac{\delta \mathcal{L}}{\delta \lambda} = 0 \dots \dots \text{(equation K+1)}$$

Solving this system of k+1 equations with k+1 variables, we will obtain the optimal number of vaccines of each type (A,B,....,K) that must be imported in order to minimize the cost incurred. Thus, we get the required import portfolio.

Note: While choosing the import portfolio, countries also consider other factors such as efficiency, number of doses etc. of a vaccine, apart from its price.

Conclusion

In conclusion, the policy that a country chooses depends upon various factors like the duration of the vaccination drive (n), the population of the country (p), the rate of domestic production (r), the rate of spread of the disease (R), the target days (D) and the number of t days it sets, while making sure that t lies between the recommended range of c_1 and c_2 . Depending on the objective the subject country wants to achieve, the government can choose which out of the above cases to go for. However, it is to be noted that this model is rigid in nature as it considers extreme scenarios and includes some underlying assumptions. Moreover, it is only valid for countries that are capable of domestic production of vaccines. In reality the subject country needs to analyze various variables in order to choose which policy action to take. The above cases can be manipulated in a way which suits the situation prevailing in the country during the disease outbreak and help in strategizing the vaccination drives efficiently.

Policy Revision

In the above described model, we took the proportion of population (M), rate of producing vaccines domestically (r) and D -days as constant. It is highly suggestive that the authorities keep an eye on these constants and revise the policy implemented in case these factors fluctuate. Alternatively, the government can also try to implement policies that control these fluctuations without tampering with the vaccination drive.

Moreover, the subject country must monitor the R number closely during the vaccination period and check whether it lies near the estimated value of R by this model. If that is not the case, a policy revision is highly recommended. This paper leaves scope for future research papers to design a method to revise D -days by keeping an eye on R number during the vaccination period.

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IN CONVERSATION WITH NISHITH PRAKASH



Nishith Prakash is an Associate Professor of Economics with a joint position with the Department of Economics and the Human Rights Institute at the University of Connecticut, USA. He is also the co-founder of Association for Mentoring and Inclusion in Economics (AMIE). Prof. Prakash's primary research interests include development, political economy, public policy, and economics of education. His writing and research have been published extensively in leading scholarly journals and newspapers.

As someone who has experience in conducting field experiments and surveys, what are the challenges you encountered while conducting these, especially in the context of developing countries like India? And, what advice would you give to students who might be interested in conducting the same?

I think the best way to answer this question would be to take examples from my projects and go over every aspect of that project while highlighting the challenges we faced. This might be more useful than just listing actions. This is a very important question because it is important to understand the various steps involved in field experiments or any projects requiring data collection.

First and foremost, how do you come up with a research question and how do you narrow it down to a hypothesis?

To give you an example, I have been working very closely with the state police in various states such as Bihar, Telangana (Hyderabad) and Madhya Pradesh and have found that the most important thing is building trust and strong relationships, this is not a trivial matter. The building of trust and relationships with organisations or people is crucial for field experiments. I'll tell you a story: when I was visiting Hyderabad in 2013 to obtain a criminal verification certificate for my wife because we were applying for our permanent residency in the United States, I met a very senior IPS officer who was curious about my work. *You should feel very excited, show your enthusiasm to talk about work, and I can tell you that this doesn't come naturally.* I have a student who is in the job market and I have to keep pushing him to smile, make eye contact and be passionate about his research question to entice the listener.

If you are not passionate, the listener loses interest as well. The project I was working on then studied the impact of electing criminally accused politicians on economic growth where we measured growth using night lights. I talked about this and he [the police officer] got excited about the project and asked to understand the process. I had gone just to collect the certificate and spend some time seeing Hyderabad but the IPS officer asked to spend time to understand my project. I went over the slides and explained to him how the data is analysed etc. Once this connection was formed, I kept in touch with him. Since I run an organisation called the Association for Mentoring and Inclusion in Economics I get to interact with many students. I often tell them that there's no shortcut to research, you have to invest time. You can't ask for help when you have no contact with a person, it appears very shallow, you have to make efforts to stay in touch. The next time that I visited Hyderabad I met him again. At that time I was working on a project called "Gender, Crime and Punishment: Evidence from Women Police Stations in India" that talked about the impact of women's police stations in India on crime and labour market outcomes (mobility). The IPS officer informed me that, as the Police Commissioner of Hyderabad, he was working on an endeavour to address sexual harassment in public space called the SHE Team "Meant for Women Safety". He said he would like me to study and evaluate this project. I was already working with my co-author Sofia Amaral from the ifo Institute in Munich. Sofia and I decided that this was a great opportunity to study something that's quite important and novel.

Now comes the challenging aspect of the project: finding resources, data, and a team based on expertise.

Sofia said that she had been working with a newly appointed faculty member at Princeton, Maria Sviatschi (Mica), who was working in Argentina and Peru. We thought we could do the same experiment in Peru to have greater external validity. I had also come across a very fascinating paper on sexual harassment in Delhi by Girija Borker who finished her PhD at Brown, and is now an economist at World bank. As I took the initiative and introduced myself to her over an email. A lot of people are fearful to reach out but I have a rustic take on things. The worst outcome of writing an email is that the person doesn't respond, and that is okay, in fact, most people don't respond. Girija had read my paper on girls education and cycles and was happy to be a part of the team. Through this process of reaching out, we created a team. *As you can see, reaching out to people nicely is never a bad idea.*

We then wrote up a proposal for this project stating that we (the researchers) wanted to push the frontier. SHE Team is a very innovative idea, where the Hyderabad police is running undercover policing to catch harassers in public space. Police officers in plain clothes would be in public places to catch perpetrators in the act. We proposed to add a uniform policing arm to the initiative to help us learn something new that's not yet been tested in crime literature for public street harassment. However, donors or organisations are often not open to ideas which can result in a lot of back and forth. You have to understand their challenges and constraints to make progress. You need lots of patience when dealing with partner organisations (donors, civil society members, bureaucrats, policy makers, etc.) or someone who is extremely busy (politicians, bureaucrats, etc.).

You must consider the bigger purpose, if you are interested in the question, you should have the patience, and be willing to engage respectfully. Generally, people lose patience very quickly but you have to realise that the outcome is not going to come right away. I started a project in 2015 which took five years to finish and we still haven't submitted it to a journal. An ambitious randomised control trial like this will normally end up taking 8-10 years. Another observation I've had is that academics tend to think they are smarter or have the upper hand intellectually when collaborating with partner organisations (donors, civil society members, bureaucrats, policy makers, etc.), which may or may not be true, but this can be detrimental. Showing off your pedigree or educational qualification doesn't go down too well with policymakers. The primary interest of the organisation was the research question and whether we were a good team who they can trust. One must remain humble despite your academic accolades. I can say based on experience that policymakers, bureaucrats and politicians are really smart since they are experts and know the challenges in terms of implementation. Do not underestimate the knowledge of others.

How can you tell if your idea is good? In our case, we presented our idea to top scholars who felt it was quite novel. Another important issue is that of funding. Field experiments are very costly. This experiment has cost us more than \$350,000. There are many ways of getting funding. The most ideal way is to write a creative proposal that you can pitch to funding organisations. Funding in developmental economics tends to have a caste system.

If you are not elite, you don't have access to funds. I don't know how this issue can be addressed. In the theme of elitism in economics, I personally don't take very elite RA's. When I first started hiring RAs I didn't get good resumes because people are not willing to work with unknown researchers. But, now even though I get applications from top places in the US and India, I don't hire people just based on transcripts, I hire individuals who are hard-working and passionate. I have placed RA's very well who might have not had perfect transcripts because the value-added is what matters. Coming back to the money piece, there are some donors and organisations with open calls for proposals where you can submit your proposal. We got rejected from a few places after which we decided to use our own money granted through our universities. With this money, we did a pilot that was a proof of concept and then wrote a proposal. We didn't ask for the full money because people are often more willing to pay marginal sums than the full amount of money when the project has not yet delivered results. We started applying for smaller amounts which helped money roll into the project. We had non-stop funding because the question was innovative and we did everything possible to push the academic frontier. *The trick is raising small money after conducting a pilot, so you have proof of concept that can help investors placing a bet on your project feel relatively confident.*

When you do fieldwork you need a strong team consisting of field managers, research associates and good research assistants. To emphasise again, it's not easy to hire very strong RA's because when you are new people are not willing to work with you. You have to build a reputation. One way in which I

built a reputation was to work towards the intellectual development of my RAs. I talk to my RAs a few times a week as compared to other researchers or PI who might not have time to talk to their RA's even if they want to help them. A good letter of recommendation cannot be written unless you have close interaction with your research assistant. When I write a letter of recommendation they are nearly 4 to 5 pages long because they are really comprehensive. Since I now have a track record in terms of placements, people know that my RAs are well trained.

I have also noticed that students tend to take a shortcut concerning institutional details or background. For example, if someone is working in the area of crime against women and the police, how do you build knowledge and understanding of that institution? There's no one specific answer. You could read books, I personally pay attention to my surroundings. For example, if you are travelling by train, talk to people because it will help you frame your hypothesis. Similarly, if you have an interest in the police, visit a police station to see the functioning and understand challenges. For me, it has always been about paying attention to my surroundings. A lot of people *don't* invest in learning about institutions.

Another very useful tool is soft skills. There's no magic bullet to effective communication or writing emails, you have to build your soft skills. There are few excellent papers that talk about returns to soft skills in economics – a new area of research. People assume you don't need private sector (corporate) skills to succeed in academia which is not true. You can't always be an excellent writer, in fact, most people have average and even below-average writing skills – for academic papers, but

working on these soft skills is essential for successful collaborations in order to do field experiments.

You will encounter tons of challenges while running field experiments. For example, the pandemic started when the endline for our police project approached. We could not go back and collect data for this type of project because you cannot go back to your sample one year later and ask them to recollect if they saw police officers on the street etc. We got lucky because we had been collecting weekly data on crime and sending our team to every hotspot every week to enter crime data based on their observation. In this context we really got lucky. Additional challenges include managing teams. To manage teams sometimes I have to be awake at 2 to 3 am EST to take calls from RAs to resolve panic situations. For example, we had a project in Bihar for training officers on gender-based violence where for two weeks I went to sleep at around 3 am following which my collaborator Sofia, living in Europe, would take over. One of us had to be available to take the calls. Academia is not just about teaching, there are a lot of moving parts and sacrifices. You have to be awake at odd hours and answer several messages. You need to gain technical data skills to prevent being blindsided. You have to maintain relationships with your team—even though I am not physically in Bihar or Madhya Pradesh, my team is there and you have to keep up communication. You have to survive in unknown places. I've had RAs who have said that they don't want to go to Bihar. I had to spend two months in a very difficult place in rural Kenya in Marsabit. It was hard to find food, I didn't know the language and I had to sleep on the top of the land cruiser we had because there was nowhere else to sleep. I learnt the answers to survival questions such as:

how do you get cold coke in a very hot place? You could wrap the coke bottle with a wet cloth so that it cools down as the cloth dries. You need to learn such survival skills. You have to be willing to take up challenges.

I just shared a story from one of my projects and each aspect has its own challenges. There are projects where things just come to you. For example, for my paper—cycling to school, I evaluated the policy of Nitish Kumar's flagship scheme "Mukhyamantri Balika Cycle Yojna" which gave cycles to girls who would enrol in grade 9, using admin data. So, this project had minimal fieldwork, although I spent time meeting school principals, student beneficiaries, and parents to understand how the policy worked at the ground level. I was presenting this paper at the World Bank, where the president of World Bicycle Relief attended my talk and offered us funding to evaluate their project which had similar objectives. We didn't have to spend time raising money, the money just came to us.

On another note, keep the time factor in mind. Field experiments can be risky for PhD students because they can take a long time to complete. For example, we have an experiment on training police for gender-based violence which lost funding due to COVID and we had to reapply. If you were banking on this project for your PhD you would have been in trouble.

The New Education Policy stresses on learning in your mother tongue. While research indicates learning in your mother tongue is conducive to a child's learning, many also criticise the policy maintaining the belief that English education is important, especially for

the job market. You also talk about this in your paper “The Returns to English Language Skills in India”. How do you reconcile this debate?

You guys forced me to re-read the New Education Policy, so thank you for that since I had not gone through every little detail of this policy. I was paying attention when things were kind of floating and people were giving suggestions about the policy but when I read the details of the policy, I came to the conclusion that I feel more excited than not. I won't be talking about reconciling this debate because there is not much to reconcile here but I will talk about my thoughts on the New Education Policy. So, the New Education Policy talks about many new and exciting things. It talks about early childhood development, which was something missing and I've always been puzzled as to why it hasn't been introduced in the past. It also talks about care for children with special needs—again, something that was missing from the education policy space—alongside support for gifted students and bringing in discussions around ethics, empathy and something that they classify as 'doing what is right.' I think all these things are fantastic moves and I applaud the Indian Government for bringing in these changes. We do not know how these changes will translate into outcomes and how investments will be made towards these plans are still unforeseen. So, for example, let's say, the plan is to invest in gifted students. How are they going to do that? Are they going to cut hiring of new teachers and fund this? We don't know that because it's

too early to talk about such plans. So, I think the challenge lies in how they are going to translate these plans into successful outcomes.

Now, coming to the debate on language. My overall read is that the new policy is in sync with the frontiers in terms of languages: we still have the 3 language policy as before, that hasn't been changed. The new policy does give more freedom to states and introduces additional languages like German, Portuguese, Spanish, French and that is totally in line with what I would say anybody should be doing. The point that a lot of people have reservations about emphasises on native and classical languages and frames them as essential tools of national integrity and loyalty. There is no empirical evidence on this idea being true but I don't think it's crazy either. If you think about France, a lot of people don't speak English but rather converse in their native language. You'll find a similar environment in Germany. This is my own observation that people do take more pride in speaking their native languages. For example, if I'm talking to my Bengali friend, they would take much more pride and find comfort in speaking to me in Bengali than any other language. Similarly, French and German people take a lot of pride in speaking their native language. This connection with our native language helps us remember or at least know about our culture and historical books which haven't been translated into English. So, learning in your mother tongue does have it's own benefits rather than costs. But as I said,

everything depends on how these things are being funded and I hope it doesn't come at the expense of, let's say, hiring new teachers, building better classrooms or adapting new technologies. I would be interested in knowing about the source of funds for this policy. So, I don't think there is much to reconcile here but let me discuss my language paper, discuss evidence from another language policy in Bengal and then, maybe you can figure out what to reconcile.

The big takeaway from my paper was very simple: if you speak fluent English, there are returns in the labour market, i.e., you earn more. The returns are also quite sizable, they are as high as, say, having a Bachelor's degree. A big piece of the paper—which is very similar to what people have studied in other countries—is about complementarity. If someone is very good at English but they haven't had formal schooling, then the returns are not as high. What complementarity means is that, let's say, once you have a Bachelor's degree and if you speak fluent English, then the returns are very high. I'm forgetting the exact coefficient but it's around 70%, I'll have to go back to the paper and check but it is very high. So, the big takeaway is that you need to think of this in terms of complementarities and I'm not talking about complementarities with English but other skills as well, for example, knowledge of data skills, soft skills, etc.

I've been emphasising on the value of soft skills to students I teach. People lack precise knowledge on the high returns of soft skills, data handling skills and basic computer skills. All of these things highlight the role of complementarities in various senses. In fact, I have another paper with one of my former R.A., Raghav

Rakesh who is doing a PhD in Economics at Michigan State University, Abhiroop Mukhopadhyay at ISI and Tarun Jain at IIMA. In this paper, we estimate returns to studying science in India. However, when we started this project we were under the impression that people are making mistakes in terms of making stream choices. So, imagine that someone is really good at Humanities but their parents have forced them to study Science. If you aggregate these things, you think maybe this is bad for the economy because it's a mismatch in terms of resource allocation. So, that was our big idea, but when we went to the field, we realised that parents are doing the right thing because there are returns to studying Science, as simple as that. If you study Science and Maths, there are sizable returns.

When it comes to language, I want you to think about complementarities and not just the returns to speaking English. To elaborate further on my answer, I will give you two examples that discuss the fundamental question that you asked. Before that, think about the global world. We do need English, right? There is no way you can survive in this world without English language skills. Recall the production function in Economics, you can think about capital, labour, human capital technology, land. So, similarly, think about the education production function. Something like a language skill is part of your education production function. Now, hold that thought for later.

Imagine a child in grade 3 who's good at Hindi but very poor in English. Now,

suppose you teach them in English. How will that work? They're not going to understand anything. You have to distinguish between English language as a subject versus medium of instruction. Yes, they are correlated but they are two different things.

There is a paper by someone whom I really admire, Dr. Joydeep Roy. I think this paper never got published but the author did his PhD in Economics from Princeton and his Master's from DSE. In this paper he studies a policy change in West Bengal—they abolished teaching English language in primary schools—and finds that there was a positive and significant effect of the policy on subsequent educational attainment, and that this was larger for children from poorer families. However, there was simultaneously a large increase in expenditure on private tutoring. This suggests that families who could afford to do so were supplementing the skills of their children by private purchases, since in a multilingual country like India, a knowledge of a common language like English has significant benefits later in life, both in the labour market and otherwise. These findings make a lot of sense.

Another researcher, a professor at IIM Calcutta, Tanika Chakraborty and her co-author Shilipi Kapur, studied the same policy but looked at labour market outcomes instead and what she found is that people who were exposed to the policy made less in the labour market. The result of her study is also what you were hinting at with your question. So, yes, it has benefits and it has costs, like anything else, it has a trade off.

It depends who you are really targeting with the policy. So, having English medium instruction will only help if you understand it, have teachers and the right infrastructure. Otherwise, it's going to have its own costs. A more fundamental question is teaching at the right level. That's also quite important. Any mismatch leads to bad outcomes. Amartya Sen uses this example of, let's say, you give a book to somebody who is illiterate, that is not going to work. You have to think about the mismatch too. From a policy standpoint, any customization of education can benefit kids, especially those who are at the lower tail of the distribution. Any customization will help but it is also hard to do. How can we customise? Think about your teachers, do they customise education? That is one question that I want to study as a teacher, do I customise? Say, someone is at the top end of the distribution and someone else is at the bottom end of the distribution. How much do I customise? I try to do it whenever I can. Like when I grade the first midterm, I recalibrate. I ask questions in the class and I always tell my students, Look, there is no wrong or right answer, just speak because you are talking to a professor who failed in his first year in his undergraduate. You cannot be worse than me." I want them to talk to me because that helps me understand if they're paying attention, if they're understanding and then I recalibrate my pace of teaching. For example, I'm teaching principles of microeconomics and I have completely slowed down after the first mid-term. First mid-term, the average was 73, which is a C I think, so after that I had to slow down. It goes back to any of these debates around education policies and customization. Customization is hard

and requires lots of investment in teachers, teaching skills and pedagogy and I think the NEP talks about these things. How it's going to happen, we will see soon, I guess.

Sir, do you think the results of your paper that talk about the returns to studying science in India are liable to change in the upcoming decades? With respect to studying something like engineering, which constitutes a huge part of the science field, ten years back the market was booming, but now it's almost oversaturated. So, do you think in, let's say, 20-30 years or even more than that, when market conditions and requirements are different, the results of your paper are likely to change?

Let me reframe this and connect it with our discussion. Abhiroop and I spent a lot of time thinking about what exactly is science doing here? Is it just pure returns that if you know Maths, Science and coding there are jobs. Is it that? Or, is it something else? I have a hunch that it's something else also. Think about Economics and the idea of opportunity cost. It is a fascinating idea. Economics introduces many concepts that's fascinating - think about spillovers and externalities. These fascinating concepts definitely enhance your critical thinking skills. So, I feel that in addition to the market returns that you are talking about here, science does a bit more to the way of thinking.

I'll talk about another RCT that I'm collaborating on with Agastya Foundation. What they do is that they have these mobile labs—science labs are in a mobile van—and they go to villages with them. So, we are working with Agastya Foundation and the whole idea is to make science accessible to rural

India. Many parts in rural India might not have well-functioning labs, so the mobile lab goes to them and teaches them about science, teaches them experiments. Now, we want to study how it impacts creativity, subsequent stream choices, etc. I think studying science also has non-market returns which we don't know and which could be changing the way we think. I think training around science does more than just the market returns, that is the puzzle that I want to understand. Is it that it makes you more creative? Is it the way you think? Is it how you approach something different than let's say somebody who has been exposed to humanities? So, it's market returns which we study, which is around 17-18% and there are these non-market returns which I don't know of. So, if those non-market returns are driving the growth of science students in the labour market, the answer to your question is it's going to stay because the returns go beyond the market. It's not just the market responding, it gives you these other skills as well.

What are your thoughts on the existence of a distinct branch of study called development economics, when based on IMF data, 85.20% of the world's population still live in 'developing countries'?

I saw a debate on this on twitter also very recently. My thoughts about studying development economics have evolved quite a bit. So, I don't think of issues from the lens of, say, developed, developing, less developed or more developed countries. Of course, there are certain issues that's more prominent in less-developed or developing countries—for e.g., take the example of poverty or enrollment. It's not a concern in developed countries. However, the way I see it is that there

are many questions that are relevant in the low-income setting; and a low-income setting can be found in any country, it's not country specific. For example, think about inequality, is it just that we only find inequality in India? You look at the US data, the income distribution is highly unequal. Let's think about learning gaps. We know there exists learning gaps among school going children in India based on the ASER data collected by PRATHAM. Translate the learning gap to college education in the US, you would start seeing learning gaps there too by race.

Currently, I'm guest editing a special issue in a journal called '*Economics of Education Review*' and the topic is *Education in Low Income Settings*. The reason we do this is because it makes it less country specific and more setting specific. We hope this issue will draw attention to specific challenges as well as advancements in these settings, with an emphasis on issues of access and equity for vulnerable students. If you go back to researchers who started studying Development Economics, they were studying issues like poverty, inequality that would be a bit specific to the poorest countries in the world. Sure, it's true that there are more people living below the poverty line in poor countries but we see this problem in developed countries as well. If you look at food insecurity, homelessness, it's not as if this doesn't exist in developed countries. I can give you a small example, I live in the US next to a town which is extremely poor. My town is not very rich but not poor. We were driving through a grocery store and my 6-year-old son, Aaryav saw a homeless person and he got really curious and started asking me all sorts of questions; "Why is this person

homeless?", "Why doesn't he have food?", "Why is he standing here?". He just went on and on and I thought, "I can actually answer these questions because this is the subject I've been trained in". And, during the process of explaining he asked me, "How did this person become poor in the first place?" which is a very structural intergenerational question. So, the point being these issues are prevalent everywhere in the world. When I talk about homelessness, think about France. It's a big problem in France. So, the insight you get from Development Economics depends on who you're talking to. To me, it's very context specific.

I teach a course on gender inequality called '*Economic Foundations of Gender Inequality*.' So, when I started teaching topics—one is about labour markets and one is about crime against women. I used to feel a little embarrassed when I used to teach crime against women. I used to think, "This is so terrible, it's such a big deal in India." However, when you start looking at the data, the numbers are very similar all around the globe. Not the aggregate number, but the proportion of women who have experienced some sort of violence. The challenges are the same. For example, even in the UK when a woman reports a crime, the challenges are similar to what you will find in developing countries. Even in the US, I have spoken to a couple of police departments, and they have shown little interest in working for women's safety. So, I realised that the fact that I worked in India exposed me to see more data from there. Some of these challenges are very similar in many countries, however, the form of those challenges might change.

In your paper 'The Impact of Employment Quotas on the Economic Lives of Disadvantaged Minorities in India', one of the key findings was that the policy improved the likelihood of finding a salaried job for male SC members in rural India, but not for ST members. What could be the reasons for this difference, and in this context, could a separate employment quota for SC and ST members be more beneficial?

Just to give you a bit of history, this was one of my oldest papers, but it has been published very late. This was my job market paper or the key chapter in my dissertation. I'm glad you read this carefully and brought up this question, it is similar to the question on language debate.

The key point here is about the mismatch. Imagine there are more scheduled castes in rural areas but jobs are in urban areas—so, this won't help them. Similarly if the minimum education requirement to join a job is a Master's degree, now how many scheduled tribes have a Master's degree is going to determine whether this will be effective or not. That's quite important.

Now going back to the very specifics of the paper. The paper provides a very crude measure of employment. I did not have the "perfect" data—a problem I spoke about in the very beginning. The National Sample Survey that I use in this paper uses salaried jobs as one of the variables. Salaried jobs can be private or can be public. It doesn't disaggregate, especially during the period I was looking at it, by the type of sector—which is public versus private jobs, because the quotas apply to public jobs not private jobs. So, any numbers that I am giving you are likely underestimating the impact. However, it

does classify by what is most relevant, that is the class of jobs—class I, II, III, IV. So, when you look at the descriptives you will find that many scheduled castes and tribes are decently well represented in class III and IV and the problem comes in class I and class II jobs. So, not having any access to the "perfect" data doesn't allow me to answer a lot of questions.

What I find is that the employment quota policy benefitted scheduled castes on average and not the scheduled tribes, during the time period that I studied. However, we do find that it benefitted scheduled tribe males residing in rural areas in BIMARU states—these are the less developed states within India, i.e. Bihar, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh. And, it benefitted scheduled caste males in urban areas of non-BIMARU states. If you try to take everything together, it is again back to targeting. Suppose there is one job in an urban area, and although people belonging to scheduled tribes don't live in that urban area, there is one person who lives in the urban area—he gets the lottery. A lot of this mismatch explains the strange findings. But as I said, this is not a paper where I have the "perfect" data to give the perfect answer—I don't. If there was such a dataset, one could potentially study this by looking at the class of jobs. I think that's quite relevant here.

It is impossible to make changes in these policies. Think about what you can do. You can't make changes in these policies in the parliament. However, as mentioned, it is important to improve the targeting based on what the gaps are for the two groups, as a matter of fact, for any group that's disadvantaged, it doesn't have to be a scheduled caste or scheduled tribe. By targeting, you asked this question of how you make it better or more beneficial, so I am explaining in terms of targeting. It is a very complex

process, which requires a lot of discretion, which would lead to a lot of bias and prejudice. So there's this risk and maybe that's why policy-makers have a strict constitutional policy and haven't thought about—or maybe they have thought about it, and it's just complex to do specific targeting. However, I highly encourage any policy-makers or the members of parliament to think about a feedback mechanism where you get specific feedback about what's missing and which gets built into the policy to improve it. But, that's almost impossible to happen because you're basically giving individuals discretion, and that's too risky.

Despite the rise in economic growth over two decades and a rise in educational attainment, there has been a trend of falling female labour force participation in India (especially women working in rural areas). This is in contrast to other developing countries which have experienced increased female labour force participation following economic growth. What do you believe is the reason for this trend and what policy nudges can garner greater participation of women in the workforce post-pandemic?

Low female labour force participation is something that has caught the attention of many researchers who work in India. And I don't think people have found it easy to understand, it's quite complex, and very different from what people have observed in other countries. We have evidence that supports that female labour force participation helps with economic growth, is more inclusive, and improves female empowerment. That's why everyone is trying to push for greater female labour force participation. So, this is not a very

straightforward question to answer, it depends on many factors: poor state, rich state, urban, rural, social-norms, safety, what jobs are available, opportunity costs, it's a pretty long list.

Let's think about this in terms of demand and supply-side barriers. Lack of opportunities such as, let's say, there are many women who could get a job in a call centre, but there is no call centre in Bihar. And if there is no call centre then the lack of opportunities is an interesting demand side barrier. You don't have enough jobs which propels people to participate. Now think about a poor household, my best guess is that in a female labour force participation will be very high when you look at the poor household because they are severely credit constrained, so you have to work to survive. Then think of a scenario where you have a skilled female labour force, but jobs are not available. Then imagine safety being an issue, it is quite an important aspect in terms of women's mobility. I am aware of at least 3-4 well done papers that show female mobility responds to safety concerns—law and order and women safety is a good investment. Then come a few additional and important barriers. Norms, suppose you can address everything we have discussed so far, but men don't want the wife or the parents/in-laws don't want their daughters/daughter-in-laws to work—that's a serious barrier and a big concern in many parts of the country.

So let's talk about opportunity cost. I have listed a few issues and am elaborating. Think about it, I have two kids, I am a female, I don't have help at home. I can find a job where I can earn Rs 50,000 per month, but I need to spend Rs 30,000 on having a nanny. I'm still worried about safety, the job is tiring, and kids get sick. Now I have to

decide whether I work or I don't work. I don't think it's a straightforward answer. It's really hard and depends on the joint decision that the husband and wife have to make. Depends on bargaining — what's the bargaining between husband and wife, and overall costs and benefits of taking a job.

So what I am trying to add here is that it's complex and it's hard to get an aggregate answer to these important policy questions. So I feel that identifying these barriers is quite important before you think about any solutions. If the barrier is, let's say, the lack of education or access to school, then construct feel that identifying these barriers is quite important before you think about any solutions. If the barrier is, let's say, the lack of education or access to school, then construct schools. My "Cycling to School" paper on Bihar shows that providing bicycles reduced the gender gap in education by 40%. If the barrier is safety, invest in policing, make the police more proactive and make them more sensitive to these issues. I'm collaborating with the Bihar police and the end goal is to improve actual and perceived safety for women.

Now suppose the key issue is norms. This is the most difficult one and hardest to change. Then you should invest in gender attitude curriculums in schools. There is a paper by Diva Dhar, Tarun Jain and Seema Jayachandran in Haryana. In this study the researchers attempted to change gender attitudes through curriculum change. And what they find is, it works!

Overall, think about what the barriers are—I don't think there is any nationally representative data where attempts have

been made to collect data and document what the barriers are. One knows about the barriers because you might be reading 5 different papers in India, or different papers in Turkey, or something in Africa. But in India, there is no nationally representative data that identifies these barriers, because unless you identify what these barriers are there is no way that you can come up with a solution. Now, another aspect which is very important, at least in developed countries and many major cities in India, is access to child-care centres. This is a big, big debate in the U.S.—it's a big gap that's relevant in most developed countries, especially in the U.S.—as compared to say Sweden, they have figured this out—the U.S. has a long way to go. It's also possible that these barriers are very different for different states. If you talk about rural Uttar Pradesh, the barriers can be very different. Maybe in Delhi the barriers are safety. So if you don't know barriers there is no way that you can think of solutions. There are just too many factors. There's a recently published paper by Rohini Pande and her co-authors which talks about how money goes to the female bank account in MNREGA so they feel empowered and work more. You will find specific papers talking about specific questions in a specific context and finding solutions. External validity is an active area of research in the discipline.

For e.g., India Human Development Survey collected data about whether you need permission from someone to go to the market. I think it is a fine question to ask but you have to distinguish it with a norm. For example, even though my wife is completely independent financially, maybe not right now given that she has started her PhD, but she is independent. Yet she informs me, saying, "Oh, I am

going to the grocery store.” So many of these datasets have attempted to get at these barriers but not in a very sophisticated way. I always worry that, let’s say, if you are telling your parents that you are going to some place, is it the case that you are not empowered or is it the case that it’s just the norm and you are informing. The dataset does not allow you to distinguish that. I would suggest that people or the government or organisations must invest in knowing what these barriers are, and then try to address them.

Several studies have demonstrated that digitization of welfare systems using mechanisms such as Aadhar has excluded vulnerable people owing to issues with verification of records or internet connectivity. At the same time, digitization has been shown to improve the efficiency of programs and create valuable databases. What mechanisms can be employed to overcome these pitfalls caused by the digitization of social security to maximise accessibility?

This is a very controversial question, by the way. One of my professors at the Delhi School of Economics, Jean Dreze, has written very strongly about it, and my co-author Karthik Murlidharan has also written very strongly about it—it is highly debated. So, on one hand it is true that digitisation, or you can say technology, helps improve the last mile problem—I don’t think there’s any doubt about it. You don’t want to go back to the old style PDS, where you are getting bad quality rice and receiving half a kilo instead of one kilo rice, you don’t want to go back to that time period. However, the exclusion of the very vulnerable from accessing benefits from the welfare programmes is

something you have to be very conscious of. Think about when Aadhar came, they were using biometrics, right? A lot of the debate is about biometrics. Now, if someone in a village is using a spade, they won’t have fingerprints. So, yes, although there is technology, I can get excluded if I am really poor and when I don’t get food. In some cases Jean Dreze talks about, people have actually died. So, you don’t want that—there’s absolutely no doubt that you don’t want that.

So, think about what the solutions are. I don’t think the solution is to go back to the old age of delivering welfare benefits, but actually to use technology to address this. During COVID, I used to be under the impression that, “Oh, everybody has a cellphone. It’s not a big deal, you can have Zoom classes”, not realising that—I remember Abhiroop Mukhopadhyay (ISI-Delhi) talked about how students at ISI Delhi struggled because they don’t have necessary internet bandwidth, or many have gone back to very rural parts of Calcutta and don’t have access to stable internet. So it is a real challenge, there’s definitely this big digital divide in India. It is important to acknowledge and address this. So, yes, maybe someone in a rural village has a phone, maybe a smartphone, but that doesn’t mean that you don’t have to worry about this divide. As I said, I used to think that this divide was not big, but the overall coverage of smartphones in India is only around 54-55% and there’s a lot of variation across states, etc.

The issue that was highly debated in this context was the biometric, many poor who work have this fingerprint issue. But I feel how one should be thinking of the way forward, using technology to address it. You can think

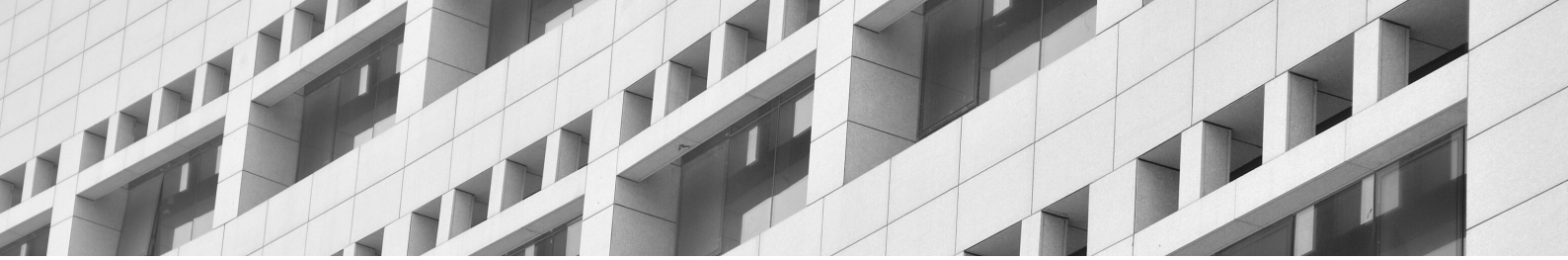
about facial recognition, you can think about using iris to identify beneficiaries.

Think about the electronic voting machine. Most of you are very young so must not have known the early '90 phase of booth-capturing. There are many famous and horrific incidents about booth-capturing in elections. Do we want to go back to that, or do we want to make sure there is a robust EVM? Obviously, there's debate about EVMs but I think it is as robust as it can be.

Yes, you have to make sure this exclusion does not happen. I would say the local administration, the Panchayats, should be thinking about this more carefully than somebody sitting in Delhi, because they can think about this big picture but at the end of the day this big picture has to be implemented more locally. But, the solution is to not go back to the old age but think about using technology to address it, and I do feel that technology can address the problem of exclusion.



GENERAL ARTICLES



A TALE OF TWO TRAGEDIES: NEOLIBERALISM FUELLED ENVIRONMENTAL DEGRADATION

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TRACING THE ROOTS- AN INTRODUCTION TO NEOLIBERALISM

The 21st century is often touted as the age of “neoliberalism”. Neoliberalism, apart from being an academic catchphrase, refers to a time when the free market is spreading to all areas of economic, political and social life.^[1] The theory of neoliberalism dates back to the 20th-century when the economists of the German School of Economics envisaged an economic system which was based on the principles of economic liberalism and free-market capitalism.^[2]

As an economic philosophy, “neoliberalism emerged among European liberal scholars in the 1930s as they attempted to revive and renew central ideas from classical liberalism as they saw these ideas diminish in popularity, overtaken by a desire to control markets, following the Great Depression and manifested in policies designed to counter the volatility of free markets, and mitigate their negative social consequences.

The core of the philosophy, in the words of noted Marxist theorist David Harvey, states “The idealist interpretation of liberalism rests on a utopian vision of a world of individual freedom and liberty for all guaranteed by an economy based on private property rights, self-regulating free markets and free trade, designed to foster technological progress and rising labour productivity to satisfy the wants and needs of all.”^[3] One impetus for the formulation of policies to mitigate free-market volatility was a desire to avoid repeating the economic failures of the early 1930s, failures sometimes attributed principally to the economic policy of classical liberalism.^[4]

In liberal theory, the role of the state is minimal (a “night-watchman” state with laissez faire policies)^[5]. In neo-liberalism it is accepted that the state play an active role in promoting technological changes and endless capital accumulation through the promotion of commodification and monetisation of everything

[1]Dylan Meisner, '21st Century Neoliberalism - Exponents' (www.exponentmag.org, 2020) <<https://exponentmag.org/2020/04/18/21st-century-neoliberalism/>> accessed 25 November 2021.

[2]Billy Christmas, 'The Neoliberal Turn: Libertarian Justice And Public Policy' (2020) 26 Journal des Économistes et des Études Humaines.

[3]David Harvey, 'Neoliberalism Is A Political Project' (www.jacobinmag.com, 2016) <<https://www.jacobinmag.com/2016/07/david-harvey-neoliberalism-capitalism-labor-crisis-resistance/>> accessed 25 November 2021.

[4]M. Soderstrom and J. Stahl, 'Editors' Introduction: Genealogies Of Neoliberalism' (2012) 2012 Radical History Review.

[5]Ibid

along with the formation of powerful institutions (such as Central Banks and the International Monetary Fund) and the rebuilding of mental conceptions of the world in favour of neoliberal freedoms.^[6]

These liberal and neo-liberal utopian visions have long been critiqued as inadequate because as Marx so clearly shows in practice, they both support a world in which the rich get richer at the expense of the well-being and exploited labour of the mass of the population. Keynesian policies and the redistributive state after 1945 proposed an alternative utopian vision that rested on the increasing empowerment of the working classes without challenging the power of private property.^[7] In the 1970s, a counter-revolutionary movement arose in Europe and the Americas organised by the large corporations and the capitalist classes to overthrow the Keynesian system and to replace it with a neo-liberal model (along with all its ideological baggage) as a means for the capitalist class to recuperate its waning economic strength and its fading political power.^[8]

Thus, while initially, in the early 20th century, the term was limited to being associated with an economic model, with the turn of the century, and most notably with the rise of Augusto Pinochet, and his brand of politically conservative, economically liberal policies, the term became a household name associated with crony capitalist policies. Other notable proponents of the neoliberalism policy included right wing populist leaders such as Margaret Thatcher, and Ronald Reagan.^[9]

In the 21st century, neoliberalism is often associated with the financial meltdown of 2007-8, the offshoring of wealth and power, of which the Panama Papers offer us merely a glimpse, the slow collapse of public health and education, resurgent child poverty, the epidemic of loneliness, the collapse of ecosystems, and the rise of far-right fascist, racist, islamophobic, transphobic, evangelical hardline christian politicians like Jair Bolsonaro and Donald Trump.^[10]

NEOLIBERALISM AT THE MARGINS

The term neoliberalism was coined at a meeting in Paris in 1938, and was the brainchild of two economists from the Austrian School of economics - Ludwig von Mises and Friedrich Hayek.^[11] Both the ideologues felt disillusioned with communism and advocated neoliberalism as an anti communist economic model. Hayek, further through his magnum opus, the Road to Serfdom, argued that government planning, by crushing individualism, would lead inexorably to totalitarian control. The Road to Serfdom was widely read, and gained the attention of some very wealthy people, who saw in the philosophy an opportunity to free themselves from regulation and tax. These oligarchs, millionaires and western

monopolists later helped Mises in setting up several institutes to spread his philosophy of neoliberalism.^[12]

Initially, despite its lavish funding, neoliberalism remained at the margins. The post-war consensus was almost universal: John Maynard Keynes' economic prescriptions were widely applied, full employment and the relief of poverty were common goals in the US and much of western Europe, top rates of tax were high and governments sought social outcomes without embarrassment, developing new public services and safety nets.^[13]

[6]Ibid

[7] n 1

[8] n 3

[9]Brett Heinz, 'The Politics Of Privatization: How Neoliberalism Took Over US Politics' (www.faireconomy.org, 2017)

<https://www.faireconomy.org/the_politics_of_privatization> accessed 25 November 2021.

10] n 3

[11] n 4

[12]George Monbiot, 'Neoliberalism – The Ideology At The Root Of All Our Problems' (www.theguardian.com, 2016)

<<https://www.theguardian.com/books/2016/apr/15/neoliberalism-ideology-problem-george-monbiot>> accessed 25 November 2021.

[13] n 4

However, after Thatcher and Reagan assumed power, massive tax cuts were provided for the rich, the trade unions were crushed, deregulation and privatisation became the norm, thereby setting the tone for neoliberalism. Further, through the IMF, the World Bank, the Maastricht treaty and the World Trade Organisation, neoliberal policies were imposed – often without democratic consent – on much of the world.^[14]

CRITICAL ANALYSIS

On a more thorough analysis of neoliberalism, we can find a better picture of its insidious self serving nature. The economic growth has been markedly slower in the neoliberal era (since 1980 in Britain and the US) than it was in the preceding decades; albeit not for the rich. Inequality in the distribution of both income and wealth, after 60 years of decline, rose rapidly in this era, due to the smashing of trade unions, tax reductions, rising rents, privatisation and deregulation.^[16]

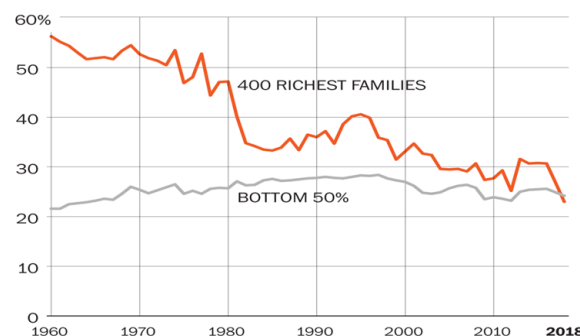
A direct analysis of the same can be the analysis of the tax paid by Billionaires with respect to the inflation. A study conducted by economists Emmanuel Saez and Gabriel Zucman of the University of California at Berkeley, presents a first-of-its kind analysis of Americans' effective tax rates since the 1960s.^[17] It finds that in 2018, the average effective tax rate paid by the richest 400 families in the country was 23 percent, a full percentage point lower than the 24.2 percent rate paid by the bottom half of American households. In 1980, by contrast, the 400 richest had an effective tax rate of 47 percent. In 1960, that rate was as high as 56 percent. The effective tax rate paid by the bottom 50 percent, by contrast, has changed little over time.

In comparison, the current federal minimum wage in the United States, sits at \$7.25 an hour, and hasn't been raised since 2009.^[19] Ever since its inception, the federal minimum wage, implemented under the Fair

Some of the first victims of neoliberalism included the trade unions and collective who saw their wages being suppressed, and them eventually getting sidelined. Further, regulations were relaxed which paved the way for excessive environmental destruction (like the poisoning of rivers), endangering workers, etc. Further, tax breaks in the name of development meant that inequality rapidly increased.^[15]

In 2018, the super-rich paid a lower tax rate than the bottom 50%

Average effective tax rates of the 400 richest families and the bottom 50 percent of U.S. households



Source: Emmanuel Saez and Gabriel Zucman

THE WASHINGTON POST

Note: Includes federal, state and local taxes.

[18]

Labor Standards Act, 1938 kept increasing at a pace with productivity growth (meaning more goods and services are produced per hour) and inflation. Although economic productivity continued to grow, the pace of wage growth started slowing after 1968, and the minimum wage stopped rising with inflation. Further, with the strengthening of the neoliberal model of economics, the federal minimum wage stagnated. Purchasing power adjusted, the current federal minimum wage, has less purchasing power than it did from the mid-1950's to around 1980. A 2019 analysis by the Economic Policy Institute finds the federal minimum wage in 2019 had 17% less purchasing power than it did 10 years ago, and 31% less than the minimum wage in 1968. A similar 2018 analysis by Pew Research points out the \$4.03 per hour minimum wage in January 1973 has the same purchasing power of \$23.68 in August 2018—more than three times the actual minimum wage.^[20]

[14] n 9

[15] n 12

[16] n 2

[17]'The Liberal Economists Behind The Wealth Tax Debate'

(www.nytimes.com, 2020)

<<https://www.nytimes.com/2020/02/21/us/politics/the-liberal-economists-behind-the-wealth-tax-debate.html>> accessed 25

November 2021.

[18]Christopher Ingram, 'For The First Time In History, U.S. Billionaires Paid A Lower Tax Rate Than The Working Class Last Year'

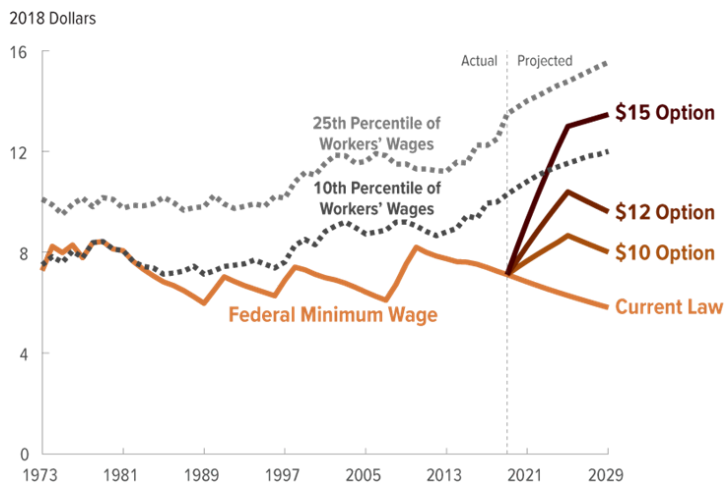
(www.washingtonpost.com, 2019)

<<https://www.washingtonpost.com/business/2019/10/08/first-time-history-us-billionaires-paid-lower-tax-rate-than-working-class-last-year/>> accessed 26 November 2021.

[19]Jack Kelly, 'The Unintended Consequences Of Raising Minimum Wage To \$15' (www.forbes.com, 2019)

<<https://www.forbes.com/sites/jackkelly/2019/07/10/the-unintended-consequences-of-the-15-minimum-wage/>> accessed 25 November 2021.

[20]Paul Verhaeghe, 'Neoliberalism Has Brought Out The Worst In Us | Paul Verhaeghe' (www.theguardian.com, 2014)



[21]

A more practical example in this category can be seen in countries which adopted neoliberalism in a shock therapy mode. Countries such as Russia and India, which were at the forefront of the neoliberal revolution saw oligarchs acquiring state assets

through firesales.^[22] In Mexico, Carlos Slim was granted control of almost all landline and mobile phone services and soon became the world's richest man.^[23] The functioning of neoliberalism is also insidious in nature - Bankruptcy moves by major corporations (e.g. airlines) deprive employees of their pension and health care rights. Monopoly pricing in pharmaceuticals, in telecommunications, in health care insurance in the USA provide lucrative avenues for profiteering. Increasing extraction of wealth through indebtedness is evident. Rentier extractions based on accumulation by dispossession (e.g. acquiring land or mineral resources illegally or at cut rates) have become more common because the rising mass of global capital is finding increasing difficulty in procuring productive uses for surplus capital. Not only are these policies susceptible to failure, in most neoliberal markets, business takes the profits, the state keeps the risk.^[24]

NEOLIBERALISM AND FASCISM

Perhaps the most dangerous impact of neoliberalism is not the economic crises it has caused, but the political crises. As the domain of the state is reduced, our ability to change the course of our lives through voting also contracts. Instead, neoliberal theory asserts, people can exercise choice through spending^[25]. But some have more to spend than others: in the great consumer or shareholder democracy, votes are not equally distributed. The result is a disempowerment of the poor and the middle-class. As parties of the right and former left adopt similar neoliberal policies, disempowerment turns to disenfranchisement. Large numbers of people have been shed from politics.^[26]

It is an open secret that "fascist movements build their

base not from the politically active but the politically inactive, the 'losers' who feel, often correctly, they have no voice or role to play in the political establishment"^[27]. When political debate no longer speaks to us, people become responsive instead to slogans, symbols and sensation. To the admirers of the likes of Donald Trump and Jair Bolsonaro for instance, facts and arguments appear irrelevant.^[28]

Donald Trump as described by leading Marxian economists is merely a President of the postmodern era, wherein alienation of the middle class has seeped deep into the society. The alienation produced by neoliberalism managed by the Workers Party, coupled with widespread corruption, produces a mass base prone to be exploited by neo-fascist delusions.^[29]

[22] n 12

[23] n 12

[24] Taylor C. Boas and Jordan Gans-Morse, 'Neoliberalism: From New Liberal Philosophy To Anti-Liberal Slogan' (2009) 44 Studies in Comparative International Development.

[25] Martin Lukacs, 'Neoliberalism Has Conned Us Into Fighting Climate Change As Individuals | Martin Lukacs' (www.theguardian.com, 2017) <<https://www.theguardian.com/environment/true-north/2017/jul/17/neoliberalism-has-conned-us-into-fighting-climate-change-as-individuals>> accessed 25 November 2021.

[26] Ibid

[27] Thomas Biebricher, 'Neoliberalism And Democracy' (2015) 22 Constellations.

[28] Martin Lukacs, 'Doug Ford Isn't "For The Little Guy" – He's A Mercenary For The Millionaire Class | Martin Lukacs' (www.theguardian.com, 2019) <<https://www.theguardian.com/environment/true-north/2018/may/25/doug-ford-isnt-for-the-little-guy-hes-a-mercenary-for-the-millionaire-class>> accessed 25 November 2021.

[29] Steve Cohen, 'State Of The Planet - News From The Earth Institute' (blogs.ei.columbia.edu, 2020) <<https://blogs.ei.columbia.edu/>> accessed 25 November 2021.

A NEOLIBERAL INDIA (READ: ILLIBERAL INDIA)

India's tryst with neoliberalism is perhaps the most tragic of all tales of neoliberalism, that has taken its current form of pure fascism in the name of hindutva nationalism. While the Congress had originally scripted the liberalisation programme in the 1990s, it was Modi who capitalised on this scheme to entrench Hindutva hyper-nationalism at the centre stage of Indian politics.^[30] As a chief minister, before 2014, he leveraged the capitalist promise of economic growth to boost the "Gujarat model"—a neoliberal playbook of "Vibrant Gujarat," Modi's flagship biennial international investors' summit, combined with his strongman populism.^[31] This blueprint, which was dubbed as 'acche din', or good times—the open-ended promise of economic growth and the restoration of a Hindu civilisational past—is what brought him electoral success in 2014.^[32] Neoliberalism in addition to the aforementioned has also provided Modi with a chance to acquire a strong economic

muscle that in turn can bring legitimacy to the political establishment. For instance, global capital inflows or the increase in foreign exchange reserves are projected as a form of global recognition of the Modi government, often as a testament of his strong personal leadership.^[33] An inflow of capital investments also redraws political power dynamics such that the management of the nation's domestic affairs remain a no-go territory for external actors. The bargain is this: the state controls the territory and puts it at the disposal of investors, and in turn, the investors legitimise the sovereign power of the state. This narrative of economic development and the attendant political dynamic was evident when the BJP government revoked Jammu and Kashmir's special autonomous status in 2019.^[34]

In furtherance of his economic ambitions, issues such as environmental regulations have often taken a toll, as shall be discussed in the forthcoming section.

NEOLIBERALISM AND ENVIRONMENTAL DEGRADATION

Environmental regulation has always taken a back seat when it comes to neoliberalist policies and pro-market reforms, especially in a developing country like India. When the Government actively takes measures, which dilute the existing environmental regulation in the country, it is bound to raise strong objections from all quarters.^[35] The most prominent example in this category can be that of the Environment Impact Assessment Notification, 2020.

The Environmental Impact Assessment ("EIA") is said to be one such tool of neo-liberal environmental policy, where before an industrial project is approved, the effect of such an activity/project on the environment is studied and analysed.^[36] If the proposed project is deemed to have adverse consequences on the ecosystem, approval for the project is usually denied by the concerned authority. In India, the EIA gained formal recognition in 1994,

[30] n 3

[31] 'Narendra Modi's Authoritarian Neoliberalism' (Sum.uio.no, 2020) <<https://www.sum.uio.no/forskning/blogg/terra-nullius/jostein-jakobsen/narendra-modi-s-authoritarian-neoliberalism.html>> accessed 25 November 2021.

[32] Ajay Gudavarthy, 'Neoliberalism Is Killing The Very Idea Of Citizenship In India' (www.qz.com, 2021)

<<https://qz.com/india/1700542/neoliberalism-is-killing-the-very-idea-of-citizenship-in-india/>> accessed 25 November 2021.

[33] n 29

[34] 'Revocation Of Article 370 Will Boost Development In J&K: Rawat' (www.business-standard.com, 2019) <https://www.business-standard.com/article/pti-stories/revocation-of-article-370-will-boost-development-in-j-k-rawat-119080501421_1.html> accessed 25 November 2021.

[35] Alan Bond and others, 'Explaining The Political Nature Of Environmental Impact Assessment (EIA): A Neo-Gramscian Perspective' (2020) 244 *Journal of Cleaner Production*.

[36] UtsavMitra, 'Environmental Degradation And Neoliberalism: Does Deregulation Work?' (www.lawschoolpolicyreview.com, 2020) <<https://lawschoolpolicyreview.com/2020/08/22/environmental-regulation-and-neoliberalism-does-de-regulation-work/>> accessed 25 November 2021.

when the Union Ministry of Environment and Forests, under the Environmental (Protection) Act 1986, promulgated an EIA notification making Environmental Clearance (“EC”) mandatory for the expansion or modernisation of any activity, or for setting up new projects in the country. This law was enacted after the Bhopal Gas Leak disaster of 1984, largely due to huge public pressure for the regulation of industrial projects in the country.^[37] Although the EIA is regarded as one of the most successful policy innovations and has been implemented in over 100 countries, there are quite a few differences in the EIA systems of developed and developing nations. For example, EIA systems of developed countries are comprehensible and clearly defined, where screening for actions of environmental significance is carried out completely, and there exists specific guidelines on scoping, public participation and the review process which are not usually present in the EIA systems of developing nations. Since its inception in India as well, the EIA has been a cause for much debate and concern amongst environmentalists who believe that there exist several shortcomings in the process, and a lack of genuine regulation of economic activity. More specifically, issues had been raised regarding the approach to conducting an EIA, the fact that most projects are almost always given approval, the lack of an authority to constantly monitor the environmental conditions imposed on the project proponent, conflict of interests in the process and lastly, the fact that the affected communities are not well aware or informed about the process of public hearing and the rules regarding the EIA.^[38]

Further, for example, the EIA has often been criticised for propagating the neo-liberal agenda of minimum regulatory control over commerce and industry. It is contended that the affected communities have no real powers under the draft notification, and this tips the scale to favour the corporates. Another major cause for concern is the fact that the EIA draft 2020 allows an activity/project to carry on operations even if it has not received adequate environmental clearances from the authorities, and receive a clearance post the construction of the plant. Such post-facto clearance threatens to leave disastrous consequences on the environment, and especially on the affected communities whose basic livelihood is dependent on

it.^[39] Moreover, a list of selected projects, which are considered “strategic”, is exempted completely from any form of public scrutiny such as modernisation of irrigation projects, plant constructions, mining activities, national defence and security, expansion of national highways, amongst others. By removing the voice of the public completely from the process, many are of the opinion that the public trust doctrine has been abandoned and such projects can now be commissioned in extremely fragile and eco-sensitive zones, where large scale environmental violations may lead to devastating consequences. In fact, this is now being viewed as a complete trade-off between economic growth on the one hand, and environmental quality on the other. Another worrisome change has been the extension of time allotted for the submission of a compliance report.^[40]

For some time now, the Government of India has bought into the idea that neoliberal policies will lead to a faster growth in commerce and industry^[41]. However, such policies have in recent times come at the cost of directly diluting existing environmental regulations, and has also put a large question mark on the development of environmental jurisprudence in the country. The dilution of the existing environmental legislation, compounded with the disregard for all the progress that has been made in environmental jurisprudence through the Tribunals and Courts can also be seen as an outcome of the Indian political economy, which is now largely dictated by interests focussed only on growth.^[42] Such drastic de-regulation in environmental legislation does not serve anyone’s interests in the long run as environmental damage has irretrievable consequences, and will inevitably affect the economy as well. . More importantly, the recent incident in Madhya Pradesh where toxic ash leaked from a power plant after a dyke collapse, or the severe flooding in Assam, or even the recent styrene gas leak at a plant in Visakhapatnam are all indicators of why strict scrutiny of industrial projects must be done before permission is granted to them to commence operations.^[43] Although the revival of commerce and industry is of paramount importance in the present situation given the severe downward spiral of the economy due to the pandemic, it cannot be at the expense of sustainable development. In fact, experts in the field have noted

[37]Ibid

[38] n 29

[39]ManjuKohli, 'EIA Legitimised Environmental Destruction. Now, Govt 'Renovates' It For The Worst. - The Wire Science' (www.thewire.in, 2020) <<https://science.thewire.in/environment/eia-2020-environmental-degradation-draft/>> accessed 25 November 2021.

[40]Ibid

[41] n 29

[42] n 37

[43] n 34

that if we don't learn from our past mistakes, and further hamper delicate ecosystems it may result in more health hazards like the current pandemic. Going forward, environmental policies must be drafted with the understanding that it is indeed possible to safeguard the environment along with having a robust economy, for example, by implementing cleaner and

greener technology. It is not a question of a trade-off between the economy and the environment, but there must be maturity on the part of lawmakers to realise that the two can, and should co-exist harmoniously. This can only be achieved by designing an effective national environmental policy based on scientific research and transparent decision-making processes.^[44]

THE STORY OF GOA: A TEXTBOOK NEOLIBERALISM SAGA^[45]

Goa, a state known for its picturesque countryside and beaches, in the era of neoliberalism has often seen itself as the centre of controversies when it comes to sustainable development of projects. Not only is Goa extremely rich in industrial minerals like coal, but it has also been blessed with deep ports, and a natural harbour.^[46]

One such demonstration is against the expansion of the Konkan Railways in the Western Ghats. According to environmentalists, the project will cause enormous harm to the Mollem National Park, as the Railways will pass right through the heart of the park.^[47] Eastern Goa has also witnessed several agitations in the past including one by environmentalists to halt the coal mining in the environmentally sensitive areas. What these projects and agitations also present is the unparalleled neoliberal zeal to ensure profits going to the last penny, at the expense of people and justify it with economic and educational progress.^[48]

For instance the 17th century built Mormugao port in Goa has been a major coal export destination for Australia and Indonesia since 2000. India is the second-largest importer of coal, as domestic production often falls short of the demand, and prefers importing from Australia and Indonesia as they have vast reserves of coal that are claimed to be

'cleaner' than Indian coal and offer competitive pricing.^[49] Goa is also favoured as it does not serve as a naval base and is located close to metros such as Bangalore, Mangalore, Pune and Mumbai, where the coal is subsequently consumed. However, in the name of economic development, the ports have been leased out to corporate houses like the Jindal Group and the Adani Group.^[50] Far from serving the interests of the state, the privatisation of the ports have only led to greater environmental damage, exploitation of the workers (in most cases, immigrant labourers are brought in from neighbouring states and are often underpaid, flouting norms and regulations), and has had a minimal impact on the prospects of either boosting the treasury or the standard of lives of the citizens of the state.^[51]

Another such example can be that of the construction of an IIT in the state (albeit on the lines of the Indian School of Mines). The IIT campus will be situated in the ecologically sensitive Melalui area of north Goa^[52]. It was expected that over 100,000 trees were supposed to be felled for this campus, apart from the relocation of several of the villagers. The argument provided by the government again was based on the same old tale of education, employment and economics to justify its claim for the destruction of the forest and forest dwellers.^[53]

[44] n 37

[45] n 29

[46] Kiran D. Tare, 'Goa's Green Wars' (www.indiatoday.in, 2021) <https://www.indiatoday.in/magazine/special-report/story/20210308-goas-green-wars-1773224-2021-02-27> accessed 25 November 2021.

[47] Ibid

[48] Solano D. Silva, Kenneth Bo Nielsen and Heather P. Bedi, 'Land Use Planning, Dispossession And Contestation In Goa, India' (2020) 47 The Journal of Peasant Studies.

[49] Brototi Roy and Kuntala Lahiri-Dutt, 'India's New Coal Geography: Reassembling Infrastructure In Goa To Move Coal' (www.sum.uio.no, 2020) <https://www.sum.uio.no/forskning/blogg/terra-nullius/kenneth-bo-nielsen/india-s-new-coal-geography-reassembling-infrastructure-in-go-to-move-coal.html> accessed 25 November 2021.

[50] Ibid

[51] n 29

[52] Staff Writer, 'Protests Against IIT Goa Campus Turn Violent As Police, Villagers Clash' (www.livemint.com, 2021) <https://www.livemint.com/news/india/protests-against-iit-go-campus-turn-violent-as-police-villagers-clash-11609936796561.html> accessed 25 November 2021.

[53] Ibid

And lastly, perhaps the greatest instance of such travesty can be the widening of the Konkan Railways route, wherein the government plans to construct an expressway and expand the pre-existing railway line by completely destroying the lush green Western Ghats.^[54] Environmentalists and villagers have also raised the red flag over the proposed track doubling of the rail link between Vasco in western Goa. This case is also no exception to the general neoliberal sentiment, as the government is trying to justify its action by playing a political gimmick that the expansion was done for the benefit of the common citizenry.^[55] The catch however lay in the fact that the new track is being laid to aid the transport of coal arriving from Australia and Indonesia at the Mormugao Port to existing and upcoming power plants in Bellary, Hospet, Belgaum, Hubli-Dharwad, Bijapur and

Gulbarga in Karnataka and Maharashtra's Solapur, thereby showcasing a completely different and contradictory story to what had been presented to the common public. What the locals and the activists also fear is that the expansion of the port, and the widening of the Konkan Railways could lead to the destruction of the state's iconic beaches and marine industry, thus further pushing locals into sprawling debt, and despair.^[56]

However, despite these concerns given the manner in which the NIA and the National Green Tribunal operate and the vision of the current neoliberal government, it is nothing but obvious that the projects might get the required clearances, without taking into account the contentions of the locals.^[57]

CONCLUSION: NEOLIBERALISM, THE GOD THAT FAILED...

Neoliberalism is the God that failed, but the zombie doctrine staggers on, due to the hope of a very world in a dystopian environment that was created due to neoliberalism in the very first place.^[58] Neoliberalism can at best be defined as a distinctive, innovative philosophy that was patient and persistent, and ultimately became the path to power, for capitalists and politicians alike. The Ethics of Neoliberalism boldly proposes that neoliberalism strategically co-opts traditional ethics to ideologically and structurally strengthen capitalism. It produces "the ethical capitalist subject" who is personally responsible for making their society, workplace and even their lives "more ethical" in the face of an immoral but seemingly permanent free market.^[59]

This disparity, between the enormous prosperity on the part of the bourgeoisie business class, at the expense of the labour class, along with the introduction of "ethical capitalism"^[60] proves the self-serving racket that neoliberal capitalism is, in the

truest sense of the word. Neoliberalism's triumph also reflects the failure of the left, which in some countries like the UK and the US actually welcomed this breed of immoral capitalism with open arms.^[61]

This further gets aggravated by the fact that neoliberalism today no longer commands the consent of the mass of the population. It has lost its legitimacy, and to ensure its survival, neo-liberalism is compelled to enter into an alliance with state authoritarianism, thereby further ruining millions of lives.^[62] It is now moving towards an alliance with neo-fascism, due to ongoing protests against this imposed order which aims at lining the pockets of the rich at the expense of the people.^[63]

The aforementioned project is an attempt at analysing the same through the lens of the environmental damage, and lives destroyed by these neoliberal policies in the name of economic development, and highlight aptly the shortcomings of the current neoliberal model.

[54] n 44

[55] n 46

[56] n 47

[57] C. Michael Hall, 'Framing Behavioural Approaches To Understanding And Governing Sustainable Tourism Consumption: Beyond Neoliberalism, "Nudging" And "Green Growth"?' (2013) 21 *Journal of Sustainable Tourism*.

[58] n 3

[59] Jorge I. Valdovinos, 'Transparency As Ideology, Ideology As Transparency: Towards A Critique Of The Meta-Aesthetics Of Neoliberal Hegemony' (2018) 2 *Open Cultural Studies*.

[60] Ibid

[61] Arvind Ravikumar, 'Market Capitalism, State Capitalism, And Community Capitalism' [2010] SSRN Electronic Journal.

[62] n 29

[63] n 3.



PRE: BOOM, POST: RECESSION

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“Parties formulate policies in order to win elections, rather than win elections in order to formulate policies”

The time leading up to political elections in a particular district, city, state or country involves a frenzy of political announcements, welfare schemes, infrastructural projects, cuts in petrol/diesel prices, slashing of interest rates, etc. This hysteria has economic, social, temporal and spatial consequences. The widespread observation of this phenomenon necessitated a deeper inquiry into how ‘election-induced’ policy reforms impact the economic conditions of a particular country.

William Nordhaus, in a seminal paper in 1975, theorizes this occurrence with the realization that governments are driven by self-interest rather than the welfare of the people. In Anthony Downs’s words: “We assume that they act solely in order to attain the income, prestige, and power which come from being in office”. This self-interest refers to the sole goal of being re-elected in the next election cycle. The incumbent government, therefore, uses expansionary monetary and fiscal policies to influence the short-term Phillips Curve. This includes falling unemployment and economic growth, a major driver of which is increased government spending on public goods and services. The decreased unemployment rate succeeds in winning over the voters right before re-election. However, the trade-off incurred is a rise in the inflation rate. Thus, in the post-election scenario, we see the government implement austerity measures, which only exacerbates unemployment. These cyclical fluctuations are linked to the rhythm of elections and these fluctuations are called “political business cycles” (PBCs). Schuknecht’s

studies revealed a group of 35 developing countries with Nordhaus-type policy cycles wherein governments try to implement expansionary fiscal policies before elections and fiscal austerity afterwards.

The extensive literature on the occurrence of Political Business Cycles can be categorized into two major schools of thought. While both models agree upon the fluctuations in the pre-election period, the economic consequences of policy changes differ. The pre-rational expectations theory, propagated by Nordhaus (1975) and Lindbeck (1976), argues for large cyclical changes in both output and employment, which affect macroeconomic variables. On the other hand, the post-rational expectations theory, devised by Rogoff and Sibert 1988 and Persson and Tabellini 1990, claims an increase in the budget deficit, the monetisation of which leads to an increase in the money supply. The change in monetary policy variables further has a cascading impact on inflation.

Like all economic models, the assumptions about the expectations of actors involved form the foundation of the model. This accounts for yet another distinction in the theory. Voters, in this case, could be assumed to have either adaptive or rational expectations. Adaptive theory dictates that expectations of the future are built on retrospective knowledge while rational expectations posit that individuals form expectations based on human rationality, experiences and availability of information. Political parties, on the other hand, display either opportunistic or ideological behaviour. Opportunistic political parties focus on maximising votes. Ideological political parties do the same while adhering to their beliefs.

Though voters are assumed to be rational, in most cases, they remain imperfectly informed. The

existence of political business cycles relies on this information asymmetry since if economic agents had complete information, they would act rationally and remain unaffected by pre-election reforms.

The information asymmetry, however, exists between the two agents regarding the political party's competence. The incumbent parties are assumed to know their own competence while voters learn about it only after the elections are over and they come to power. Thus, there exists a one-period lag. If the voters were able to anticipate changes in the pre-election period given the upcoming elections, there would be no substantial effect of these policies. However, voters are known to be myopic in nature. Had they been more future-oriented, they would assign greater weight to post-election performance.

An important illustration would be to consider a tax cut just before an election. Voters will be unable to distinguish whether it is implemented due to the higher competence of the political party or is just a transitory power move. Therefore, more evident actions, such as adding street lights or repairing roads, are preferred over long-term investments which are less visible, such as providing education. Politicians thus tend to focus on corpus spent on the 'visible' rather than on the productive. This leads to a 'stop-and-go' pattern leading to macroeconomic instability.

Another criterion that determines the projects that incumbent parties choose to invest in is contingent upon the constituencies of interest or special communities that may be acting as vote banks for them. This variation in the composition of expenditure incurred implies that while the total amount of government spending remains the same, the impact of political business cycles induced in different districts varies.

In India, this phenomenon is widely observed in state government elections, since they tend to be far more resource-constrained than the Union government. Conducting an extensive analysis of 14 Indian states between 1960 and 1996, World Bank researcher Stuti Khemani found little evidence of fiscal profligacy in an election year. However, the study found empirical evidence of fiscal

manipulation to target narrow interest groups. Khemani further states, "Tax collection from specific producer groups is lower and public investment spending is higher, while spending on what is generally regarded as more populist categories is lower."

The form of expansionary policy adopted differs across the ideological backgrounds of the political party in power. A tax cut can be as easily implemented as an increase in government spending. Leftist parties choose to focus on reducing unemployment rates, while rightist parties prioritize the reduction of inflation rates. An interesting point to note here is that people tend to vote for the political party rather than the candidate.

Political business cycles have been proven empirically to exist in different countries. While the common notion may suggest this fluctuation to exist in only developing countries, with newly-formed democratic structures, studies have observed that PBCs occur in advanced countries as well, but with reduced frequency. This increased frequency observation is supported by the argument that fiscal manipulation is rampant in these 'new democracies' because of inexperienced voters. The usually limited constitutional separation of power also fails to resist procyclical fiscal policy.

Svenssons and Chi (2006) used a large panel of data covering 123 countries over a period of 21 years to analyze the relationship between electoral cycles and politics. The study further distinguished between the composition and size of political cycles in developing countries. Svenssons' study proves, "The elections induced in the developing countries a budget deficit as a percentage of GDP almost double compared to the developed countries: on the eve of the election, the developed countries have recorded an increase in the average budget deficit by roughly 0.6 per cent on average, whereas in the developing countries the average percentage was around 1.3%." Looking at empirical studies proves the existence of political business cycles in several countries. Gonzalez (2002) illustrates the usage of public

spending on infrastructure to nudge elections in Mexican political business cycles. He categorizes certain countries in Latin America to be 'imperfect democracies', which have experienced frequent changes and shocks to the social and economic institutions.

While some of these emerge to move toward becoming advanced democracies, others settle for a system of reduced political and civil rights for their system. Kneebone and McKenzie (2001) found opportunistic PBCs in Canada in terms of both revenue and spending. By analysing periodic data from 44 sub-Saharan African countries from 1980 to 1995, Block (2002) found visible trends of election induced interventions in monetary and fiscal variables such as fiscal deficit, seigniorage and nominal exchange rate changes, inter alia. Schuknecht found strong evidence suggesting the existence of electoral business cycles in countries with a fixed exchange rate and sufficient foreign reserves. Monthly panel data sets on Russia from 1995 to 2003 also reveal strong evidence of the existence of opportunistic budget cycles. (Akhmedov and Zhuravskaya (2004)). Khemani (2004) proves the occurrence of the same correlation between election cycles and fiscal policy stimulus in India.

In the Indian context, both government spending and the fiscal deficit have been seen to increase on average during an election year. Vaidya and Kangasabapathy suggest that while revenue receipts might be overestimated, total expenditure tends to be underestimated in most election years. This implies that the budget deficits are often understated and digress from the facts. These deviations become more apparent in interim budgets. Their study provides evidence that the revised estimates place the borrowings and other liabilities at as high as nearly 46% over the budget estimates. This translates to revenue and fiscal deficits soaring by nearly 77% and 46%, respectively, contracted with 11.9% and 7.9% in regular budgets. Thus, interim budgets often serve as tools for manipulation by the governments to gain political leverage.

In India, the influence of such economic

manipulations for political benefit can be seen not only in terms of fluctuations in output, employment and inflation but also in terms of government spending on public sector enterprises. Uttar Pradesh, India's most populated state, is a great example. The data from its power corporation shows that electricity lines lost surge just before state assembly elections.

Though this seems contradictory, it happens as political parties advertently redirect power to unbilled users. Another change seen is the amount of farm loans given by state-owned banks. This is 5-10% higher in election years than in the years following it. The cost of these politically motivated loans are much higher as they are less likely to be repaid and tend to window dress the effect on agricultural output. These loans are also usually directed to districts in which the incumbent party had a narrow margin of loss or win in the previous elections. These tactics convince the voters of improved economic growth while allowing the parties to showcase their performance, thereby enhancing the 'political report card' just before the elections.

While voters get persuaded by the rosy political report cards curated by political parties right before elections, businesses and investors react in a counter-intuitive manner. Economic variables pertaining to new projects and investments dry up right before elections. It occurs because businesspersons and industrialists expect a plethora of policy changes preceding elections and thus become cautious about the direction of the wind.

A Mint analysis found a decline in consumption of raw materials, mainly cement and steel ahead of elections. This reflects how core industries like construction and steel restrict expansion in the face of political uncertainty. When the data from 1994 to 2004 was analysed, it was seen that the consumption of steel reduced significantly every time there was an election in India. This also affected the average growth in steel consumption which was 6.45% percentage points lower as

compared to non-election years.

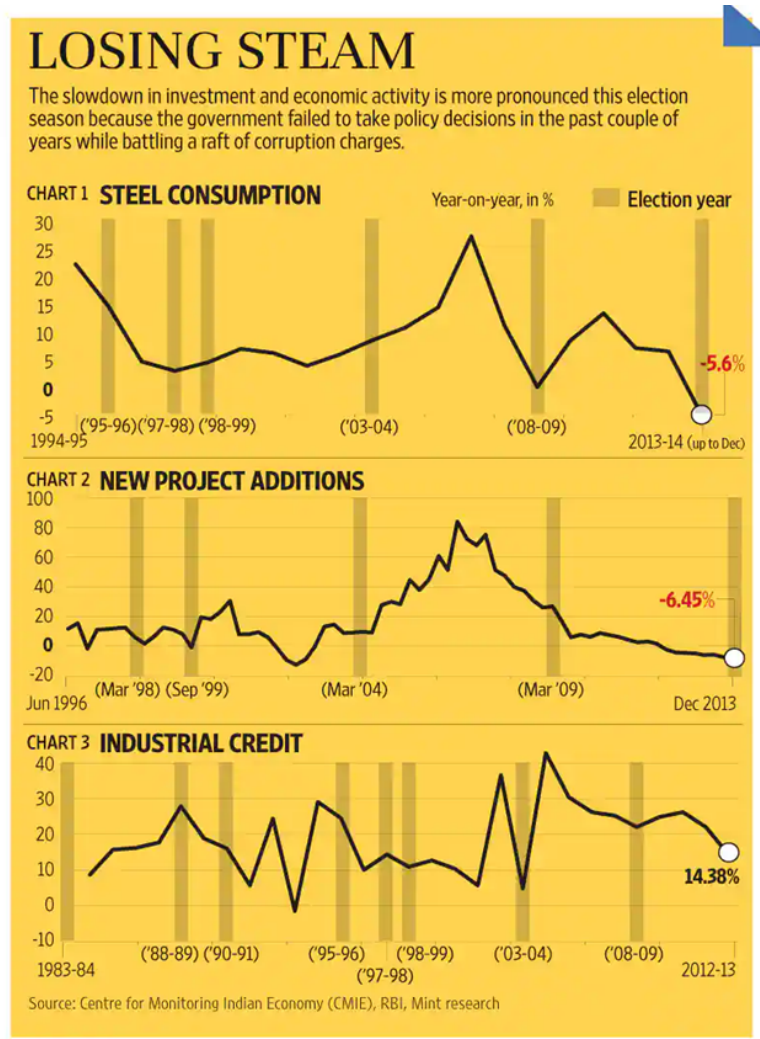
Since industrialists become cautious and want to see the changes brought about by the new government, they avoid investing in new projects. An implication of this is reduced industrial credit growth which was 1.8 percentage points lower in election years. There is also a clear spike in both total and revenue spending in the election year and the year just preceding it. However, this has a greater impact on inflation than on real economic activity.

These political business cycles, therefore, influence all agents of the economy in one way or the other. (Refer to the chart attached in references)

One might wonder then if there could be a systematic mitigation to fix the problem of political opportunism in government spending? The fact is, there is no easy way. These cycles, as

illustrated in this article, are inherent in the democratic structures across the modern world. However, political scientists propose that as democracy as an institution evolves to become more equitable and resistant to political manipulations, the propensity and intensity of these cycles may reduce.

As the society matures, citizens trust elected representatives more as well as have greater access to complete information. As voters get increasingly informed and aware of political incentives driving policy decisions, the less they would reward them for reforms enacted pre-election. There exists a negative correlation between the magnitude of the cycle and democracy, government transparency, media freedom, and voter awareness. The political parties also become incentivised to focus on long-term growth and development rather than short-term appeasement of its voters. Perhaps Indian democracy is still a work in progress in that respect.



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IN CONVERSATION WITH ASHWINI DESHPANDE



Ashwini Deshpande is Professor of Economics and the Founding Director of Centre for Economic Data and Analysis at Ashoka University, India. Predominantly, she has been working on the economics of discrimination and affirmative action issues, with a focus on caste and gender in India. Alongside her several distinguished publications, she is the author of the books “Grammar of Caste: economic discrimination in contemporary India” and “Affirmative Action in India”. She received the EXIM Bank award for outstanding dissertation in 1994, and the 2007 VKRV Rao Award for Indian economists under 45.

Professor, starting off with your work, collection of disaggregated data involves several dynamics and can be quite difficult. What challenges have you faced during data collection for your research on discrimination and how did you navigate them?

First of all, thank you for inviting me to speak to all of you. It's a real pleasure. A lot of the work that I do is based on secondary data, in the sense that this is unit level data, data on households and individuals, but not collected by me. It's either collected by the National Sample Survey or the India Human Development Survey or the National Family and Health Survey. Now, any survey collection, any survey data, there are challenges involved in it. You can ask what kinds of questions you can ask? What is the best way to answer the question that gets to the response that you are looking for? Not in terms of the response for yes or no, or a particular value, but basically the information that you want from a particular question depends on the way the question is asked. So, people can respond very differently. So, supposing you ask, do you think your income is sufficient to meet your needs? A very large number of people will say, no, it isn't and we barely make anything, and, you know, there's zero income, we don't earn anything. Or if you just ask, how much do you earn, you're unlikely to get any accurate response. But, if you want information on income, then there must be other ways to get information. So, any survey data involves a whole host of challenges. I have done individual surveys as well, and I spent a lot of time thinking about the question, what responses it'll elicit and a very important part of getting it right is pre-testing—what we call pilot

studies. So you test it on populations, similar to the one that you are going to be eventually running the survey on and see the responses. Often, you know, the question is clear in your mind, but when you're asking it, it appears something else to the respondent. So they don't answer it in a way that you expected them to answer. And then you realize that while the question was clear in your mind, it wasn't perhaps clearly stated. So, you must do field pilots, analyze the answers from the pilots and then decide whether the way in which you formulated the question is correct. And, do a few iterations and then go into the field. So yes, there are indeed many challenges and I've learned a lot from each of the surveys that I have conducted.

Professor, in your book, “The Grammar of Caste”, you talk about overlapping identities while mainly focusing on caste and gender. And, in that nuanced analysis, you also point out that those who are disadvantaged—in respect to both identities, dalit women—tend to bear the brunt of disadvantage the most. So, do you think that such multifaceted identities can benefit if they are offered more space in affirmative action or given a separate category of their own? Or, even other than that, is there any way that reforms can be targeted towards this community specifically?

Absolutely. So, you know that there's a big debate on women's reservation bill, you know, political representation for women in state legislatures and parliament. Now, that bill is asking for 33% reservation for women in these decision-making bodies, which is a very progressive step. Now, dalit women activists have been saying that within that 33% quota, there should be a quota for dalit women otherwise the danger

is that upper caste women might disproportionately get elected on the women's reserved seats. And, that has unfortunately sort of divided, not divided, maybe a strong word, but there are differences of opinion on this question within the women's movement.

So, I think that if you recognize the multiplicity of disadvantage, then it is easier to recognize that affirmative action or any other remedial measures must be such that it reaches the most disadvantaged section. Clearly, the most disadvantaged shouldn't get left out of that remedial measure. So, I think that the context for the women's reservation bill is that, the debate on that. And, I definitely think that we need to think of layers of disadvantage, or advantage for that matter, and design appropriate remedial action for different sections.

Over the past several decades due to the technological revolution, several jobs have come up that can't exactly be categorized into the varna system. Now, do you think that the coming up of these occupations has an influence to let people who are disadvantaged in the caste system attain upward social mobility? Do you think that that's possible?

So, you know, the thing is that if you look at the modern occupation spectrum, you know, think of all the kinds of work that people do and you think of the divisions that you see in the—not the Varna, Varna is very, very old—even if you look at the Jati system—which is the contemporary organization of the caste system, Varna is 3000 or 3,500 years old and you'll see basically four or five Varna in it and surely, you know, that's not what economic occupations are in Indian society. So, Jati is the category to look at

, but even when you think of Jati based occupations—and you think of the modern occupation spectrum, you cannot match the two one-on-one. There is a range of modern occupations that have no traditional Jati counterpart. And that's one. The second is, because there is freedom of occupation so, legally speaking, in terms of formal legal structures, there is no prohibition from anyone doing any job if they were qualified for it, right? So that is the formal equality that is enshrined in the Indian constitution, which is freedom of choice for occupation.

But, there is a difference between formal equality and what is called substantive equality—which is equality in law vs equality in fact. So, when India became independent, BR Ambedkar, who was the chairperson of the drafting committee of the constitution, led debates in the constituent assembly before the constitution was adopted in which this question of reservation or quotas was discussed. And, Ambedkar made a plea for the reservation system by saying that India is entering into an era of contradictions because a system of legal or formal equality is going to be superimposed on a base of substantive inequality. So, the inequality that comes as a result of the caste system is not written in law. Law does not allow it. Yet, the inequality is persistent. The legal structure guarantees equality to all citizens regardless of their social origin. Okay. So when it comes to occupation in the modern occupation spectrum, if somebody were to have qualifications for that particular occupation, legally, they cannot be stopped.

Then, why do you see a disproportionate concentration of the so-called upper caste individuals in the better paying top-end of the modern spectrum

and a disproportionate concentration of the most disadvantaged and stigmatized jatis, the Dalits, at the bottom end of the modern occupational spectrum? That doesn't mean that there is no dalit at the top or no brahmin at the bottom. Of course not. But the proportions are vastly different. And, that is not coming because of any legal challenges - that comes because of the fact that the hold of the caste system is very strong and it results in a lot of consequences. One - access to education. School, college, quality of education exposure to overall resources for learning, et cetera. So by the time students come to colleges, the inequalities that are because of caste based discrimination in all other aspects of life are already ingrained. And, there are gaps between the so-called upper class young people and lower caste young people. Over and above that, even if a dalit individually acquires the education that's needed to access a modern sector high-paying job, there's labor market discrimination over and above all of these factors of discrimination. So, while theoretically the possibility of upward mobility exists, and indeed there has been some upward mobility, the constraints that upward mobility comes from are very strong stranglehold of the caste system, of the jati system in contemporary India, so, that patterns of discrimination, both when the child is small in school, in college, in the job market, those patterns of discrimination keep getting repeated. It's a complicated answer, but that's what it is.

Dr. Ambedkar had famously denounced brahmanism and capitalism as the two evils that an Indian worker has to face in the market. But, with the advent of neo-liberalism there has been the emergence of Dalit capitalism, which embraced self-help and entrepreneurial

forces for the dalit emancipation. So, this has been optimistic but what does this idea entail for inequality amongst the Dalits, and the broader annihilation of caste?

Yeah, that's a good question. You know, Chandra Bhan Prasad, who's a leading Dalit intellectual and has been regular commentator on these issues, has argued that annihilation of the caste will occur when dalits become capitalist, that they acquire capital and rise to the top of the economic pyramid—and, that's going to result in the annihilation of caste. And, this idea comes from the movement for black capitalism that happened to the United States following Martin Luther King, you know, following the Civil Rights Movement in the United States. The issue is that capitalism as a system in itself is inequality generating, you know, there are capitalists and then there are workers. So, even if Dalits became capitalist, it doesn't mean that all dalits or a large number of dalits or a large proportion of dalits are going to become capitalist. No, numbers are not important here, the proportion. Because capitalism is a system, the model is, you know, in terms of proportion, there are far fewer capitalists than there are workers. Because, you need a group of people who are going to be the proletariat or the workers in order for capitalism to survive. So, even if black capitalism or dalit capitalism were to be successful in creating a community of Dalit entrepreneurs—which it has been, and those numbers are growing and the accounts that you hear from how they succeeded are absolutely inspiring and so all power to the individuals who faced caste-based oppression and discrimination all their lives and succeeded, despite all odds to become successful capitalists. So, while we must applaud their efforts,

this is my personal view—I don't think that that is a route for annihilation of class. That might play a role in the sense that the greater the number of the successful entrepreneurs, the stigmatizing association of being dalit and being poor gets broken. And, I think that's a good thing. You know, it shows entrepreneurial ability, it shows, you know, ability to succeed. And these are all good role models or good stereotypes to have. But, I think we must be cognizant of the fact that this route is open only to a few. Most of all, not everybody wants to be an entrepreneur. Entrepreneurial activity requires a certain mindset, it requires the willingness to take risks and a life of an ordinary dalit person is already full of grave risks in all kinds of ways. Maybe some people have an appetite for risk and they still want to continue a livelihood activity which is also risky but many may not want to regardless of whether their individual lives have risks or not.

So, to see this as the primary vehicle of the annihilation of caste is, in my view, going to be myopic, it is not going to work out. So, while whoever wants to be an entrepreneur should obviously take the route they want to take - and many have indeed taken that route - but if you look at the overall self employment scenario in India, you look at the micro, small and medium enterprises in India, which is the majority of self-employed individuals, then dalit owned enterprises are overwhelmingly small, low productivity and survivalist—it's something that you do just in order to survive. You are not employed by somebody else so that is why you are called self-employed but you could be a self-employed person sitting on the roadside selling something or repairing something or you could be Mr. Tata himself, both of these individuals are self-employed but you

can see there is a big gap between the kind of activity they are doing. So, if dalit capitalism encourages big, large-scale entrepreneurial activity and creates a class of capitalists, while it might worsen within-group inequality for dalits, at least you have a community or a group of high net worth individuals within the dalit community and there are many things to be said in favour of that. But, the overwhelming majority of dalit businesses are not in that space. I have a paper on 'Dalit Entrepreneurship' and we find a very large proportion of dalit entrepreneurs are own account workers, that means one person. It's literally like setting up something, a "business", even if you have to repair shoes, that's also called self-employment. So, these are very low productivity, elementary, survivalist activities—it's just that you need to do something to live. So, I think when you think of annihilation of caste, there has to be many more elements to that than just the focus on dalit capitalism.

Professor, if we could just interrupt you and go back to a question that we had asked you previously, it was about how dalit women should be offered space within affirmative action and you talked about the women's reservation bill in that context. I just wanted to know if within your work or anywhere else you've come across any such policy in India or around the world which has included multi-sectional identities in its framework?

Yeah, of course. You know, the quota system in the government has vertical reservations, which are caste-based reservations, and then there are horizontal reservations, which include reservation for people with disabilities, or in some states, for women among other things. These horizontal reservations are cross-cutting across the

vertical section. So, within reservation also you can have a cross-cutting category. So, you can have a SC female or SC disabled. There are many ways in which you can specify the intersectionality. One of the challenges with the quota system is that because ways in which you can specify the intersectionality. One of the challenges with the quota system is that because quota is always the percentage, the greater the number of categories you specify, the base has to be large enough. So, a large department, suppose a particular department is a 100 people—by department i don't necessarily mean academic department but rather the base unit on which the quota is calculated—if the base is large you can have many different smaller compartments but if the number of people is small in the base, supposing there are only 15 people in the organisation, then if you have 10% for SC, 7% for ST, etc. you will see that the greater the number of categories, the harder it is to find whole numbers to fulfill those criteria's. So, it's a logistical challenge but you can definitely target policies towards intersectional identities, there are many examples of that.

The other way to go around it is not to have a quota but to give additional points. The Jawaharlal Nehru University had an admissions policy that resembled the additional points system because it wanted to honor many kinds of disadvantages. Now, it has a quota system but earlier what it would do is, it would grant additional points for disadvantage according to certain criteria. So, if you were from a backward district, you would get certain points, if you were female, you got certain points.

In some sense, in a very weak form, the Delhi School of Economics' admission's policy also follows this - they don't use caste as criteria but they do have multiple points to whatever they consider deserves them based on disadvantage and such. So, there are many ways in which you can devise these kinds of policies.

You need clarity on what it is that you want to achieve. In electoral positions, it's actually not at all difficult to implement these policies because you already have elected SC/ST reserved constituencies, those are already mapped out. So, if you wanted the caste reservation within gender, what you could do is, you could convert some of the SC/ST to Women and SC/ST. That would automatically mean only a woman belonging to those reserved castes can contest for that seat. So, it's not hard at all to do in terms of logistics for parliamentary or legislative constituencies. It's much harder to do that for jobs because the base issue becomes very important.

Moving onto Covid and the pandemic, Professor, in your article, "What Does Work from Home Mean for Women?", you conclude that the scenario for women workers post-lockdown looks bleak, and work from home doesn't make it better. You also state that apart from the need for adequate compensation, some "support structures" should be put in place for an equitable sharing of domestic and care work. What do you exactly mean by support structures and how can they be implemented?

So, this is a hard one for policy because it's within the domestic sphere. Even if the government were to make a rule, who is going to come and check inside homes how the division of labour is proceeding? So, this is a social norm that has to change and it will only change when a sufficient number of us decide to change it. History is a guide. So, this is a hard one for policy because it's within the domestic sphere. Even if the government were to make a rule, who is going to come and check inside homes how the division of labour is proceeding? So, this is a social norm that has to change and it will only change when a sufficient number of us decide to change it. History is a guide here. The way social norms change is not by preaching and saying "do this, do that", that's not how social norms change. People can change their behaviour under threat, of course. If I know that I'm going to get killed because I have made a personal choice, I probably won't do it in public because I wouldn't want to die, right? But, in terms of women's work, domestic chores, the norm of greater gender equality happened when women started going out and working. So, the change in norm followed women's entry into the labour force, not the other way round. In European societies and the United States, it wasn't as though something happened and first social norms started changing and then the husbands said, "Oh! you can go out and work", it didn't happen like that. So, I think that when material conditions change, social norms change following that. So, even in those societies where the norms are much more equal than they are in India, Covid has highlighted how the responsibility of childcare or the responsibility of homeschooling or taking care of children or just being caring, disproportionately falls on the woman. So it's just expected that the woman will do whatever else she needs to do but will also do all the care work and if a woman doesn't do it she isn't

considered a good wife or a mother or even a good person in the family. So, it's supposed to be second nature for a woman to be caring, if you're a woman doesn't do it she isn't considered a good wife or a mother or even a good person in the family. So, it's supposed to be second nature for a woman to be caring, if you're a woman you're supposed to be caring. But, I think everybody should be caring, in general we should all be caring individuals and there is nothing gendered about care. What I mean is, in terms of work from home, what happens is that it is non-stop work for women who are working and have jobs. People like me, for example, I still have a job, I'm working and I'm personally lucky to have a family that helps and supports me and we share the household work. But, if I didn't, my employer would not say "Oh, it is okay she has to take care of her home." I would be doubly pressured because I now am aware that I need to fulfill the needs of work from home and I need to fulfill domestic needs of care work, domestic chores, all of that. So, you can't count on first people's hearts to change and then things will get better, that never works, that's not how social change is achieved. Material conditions have to change first, norms follow from that.

Professor, in one of your interviews with the Wire, you had mentioned that you hope that the normalization of working from home because of covid, also post-covid, would change working conditions for women because one of the reasons that women were discriminated against was when they asked for more flexible working conditions, they were denied that. Coming to post-pandemic, do you think that change would make it easier for women to work?

I don't know whether it will happen or not, I can't forecast that. But if that were to happen, what I said in the Wire interview was that it will "destigmatize women asking for flexible time." Women

used to be stigmatized for that and used to be discriminated against and this will hopefully destigmatize that element and if this was the only reason that a woman was not being considered for a job, hopefully now people will realise that it is possible to work from home. This is only one element that prevents women from accessing paid leave, there are many others. But, to the extent that this was an element, I hope that will change.

The World Economic Forum just released their Global Gender Gap Report 2021, and it said that the job areas where the gender gap is expected to rise is the disruptive technology sector which has cloud computing, AI, engineering, etc. Also, women's participation in STEM is very low as compared to their participation in the care sector. Do you have any reasons as to why this might be, or why women are not interested in these areas?

It's social conditioning. Right from the beginning—from childhood—parents and society treat girls very differently from boys. Many parents internalise the labour market barriers that women who choose these parts face, and their point is, "Why do you want to do it? It's going to be very difficult for you to find a job," or, "It is not compatible with the pressures of marriage and child-bearing." There's a lot of social conditioning that happens in very early childhood that often makes girls feel like math is not for them, or STEM subjects are not for them. But there's nothing genetic, biological or scientific at all that says that men are better in these subjects than women. There's no such evidence.

There's a gender gap in vaccination in India with more men getting vaccinated than women. Do you think this is because the sex ratio itself is skewed?

States like Kerala have a smaller gender skew ratio, and even the gap in vaccination between men and women is small. This is true for Chhattisgarh as well. So, does the fact that there just are more men than women, play a role here?

So, first of all, the gap in the sex ratio at birth and adult sex ratio is totally different. Normally, if you left it to nature, for every 100 girls, there would be 105 boys. That's because the male infant is more delicate, and more likely to not reach adulthood, than the female infant. And, the reason that nature has 105:100, is so that by the time they become adults, it equalizes roughly to 100:100, which is 50:50. What happens because of sex-selective abortions is that not only does gender gap at childhood become worse, but the disparities that you see in sex ratio at birth don't persist all the way up to adulthood. So, that's, first of all, not the correct way to look at it.

Secondly, the same reason that Kerala sees a better sex ratio at birth is also the same reason that you see more gender equality in vaccination - which is, when society thinks of its women and men as equal citizens with equal rights, you see that attitude towards gender equality permeating in many different spheres. And, in certain other parts of India, this commitment to equality is lower. But in general, in India all over, including in Kerala, when it comes to expenditure on health and education, men are always ahead of the queue than women. That is a fact, you know, that's one of the manifestations of gender inequality. Have you seen this film called The Great Indian Kitchen, has anyone seen it?

Yes, it's a Malayalam film.

Yes, it's based in Kerala. So, the point is that the gendered norms about the

division of work inside the home are very strong all over India. It is to the credit of a Kerala filmmaker that he was able to make this film and show the stark patriarchy that exists inside homes. But, what the gender gap in vaccination shows is something that has been observed in other contexts when it comes to attention to health between men and women. That men—the boy child, the male child, grown men—are always ahead of the queue when it comes to scarce resources. If parents are going to spend on private tuition or private schooling, and they have a boy and a girl, they'd rather spend on the boy than on the girl. Unless, of course, they are very, very rich and they have enough money for both, and they genuinely don't discriminate between girls and boys. And there are many such parents like that, I'm sure many of us are fortunate enough to come from those kinds of families as well. But, an average Indian household does show gender gaps in expenditures on health and education. That's a fact and that same thing is getting manifested now in vaccination.

Ma'am, what are the different economic and cultural factors do you think influence the average Indian family's bias towards boy-children?

There is a phenomenon called son-preference. There are many reasons why in several cultures, and not just in India, families want at least one son. What are those reasons? Some are cultural reasons. For example, the last rites and the belief that your body doesn't attain salvation, or your soul is not freed from the body, unless the last rites are done by the son. That's a cultural reason. There is what is called patrilocality which means that when a marriage takes place, the young couple starts living with the husband's family. So, the wife moves into the husband's family

What does that mean? It has implications for the way in which property is handed down. It's handed down in the male line.

The role that patrilocality plays is that, therefore, the son becomes the guarantee for old-age support because it's the son who is going to be living with the parents as they age. That's the other very big reason. For example, in societies like South Korea, we have seen that with the spread of urbanisation, there's been an increase in female labour force participation. Women started going out and working and earning money, thereby lowering this particular belief that only the son is going to be a source of old-age support. Now the woman, the daughter, is also earning.

So in South Korea now, whoever lives closer to the parents are the ones who take care of whichever set of parents they are supposed to take care of.

So, the roots of son-preference are several. But how do you break those roots? Again, women's economic independence is a very important factor that'll break that son-preference chain. Sons are seen as sources of old-age support. There is no institutional old-age support system to speak of; there are some homes available for the very rich, but otherwise, society as a whole or the government doesn't provide for non-family based old-age support systems at all. So, you're dependent on the family to take care of you when you grow old.

TEAM AAPOORTI



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