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FOREWORD

It is pleasure to present the 16th edition of Calyx, the research Journal which always welcomes the research oriented thoughts of students in all faculties of our college. This edition of the journal presents interdisciplinary approach to the diverse cultures all the way from food consumption patterns to entertainment and from business to science cultures all over the globe.

When we think about cultures all over the world, the things that gather in mind are traditions, languages, religions, arts, and social behavior of people in the world, keeping this in mind, in this edition we tried to keep all these things together.

Several studies in this edition explore how globalization, technological advancements, and socio-cultural factors influence consumer behavior, particularly within the entertainment industry. Other articles highlight the deep interconnection between science and culture. One author examines food cultures across various civilizations, with a focus on Asian countries. Another discusses the cultural significance of calendars and their historical impact. The role of trade in shaping cultures and linking distant civilizations is also addressed. Additionally, one author offers a critique of Huntington's "clash of civilizations" theory.

In this edition, our authors explore a range of topics, including a comparison of Western and Eastern work cultures, highlighting how language, tone, and respect are influenced by hierarchical structures. One study examines cultural influences on financial decision-making through a comparative analysis of India and the USA. Another article looks into how older adults cope with life's challenges, emphasizing the crucial role of social support and resilience in their mental well-being. Research is also presented on how culture—particularly collectivism—shapes individuals' conformity to rules and expressions of empathy. Additionally, a literary comparison of Franz Kafka and Fyodor Dostoevsky explores how both authors depict characters grappling with identity and modernity. Finally, this edition features an article on how the Harry Potter series evolved into a global cultural phenomenon.

In conclusion, we sincerely thank all the students and scholars whose contributions have enriched this edition of the *Calyx Research Journal*. Your commitment, curiosity and academic excellence is deeply appreciated and we are proud to feature your work. To our readers, we are grateful for your ongoing support and interest. We invite you to celebrate with us the power of interdisciplinary research and its meaningful impact on deepening our understanding of the diverse cultures that shape our world.

Warm Regards,

Dr. Gangadhar A. Chavan
(Coordinator Calyx Research Journal)

EDITORIAL

The Calyx Research Journal, with its thought-provoking theme *"World Cultures,"* provides a vibrant platform for scholarly exploration into the diverse ways culture shapes and is shaped by human experience. This year's theme invites critical inquiry into the traditions, values, practices, and influences that define cultures across the globe — from local rituals to global movements.

The articles featured in this edition delve into a wide range of topics that reveal the cultural underpinnings of social, scientific, and economic phenomena. From examining how cultural values drive entertainment markets and financial decisions to analysing how science influences food traditions and global belief systems, this edition offers a multidisciplinary lens on culture in motion. The journal also highlights comparative studies between nations, reflections on conformity and empathy, emotional well-being among older adults, and the symbolic power of fictional icons.

Each contribution provides a unique perspective on how cultures shape our understanding of identity, community, innovation, and power. Whether investigating historical exchanges through trade or exploring modern workplace dynamics, the journal encourages readers to appreciate the interconnectedness and diversity of cultural expression.

The Calyx Research Journal remains an interdisciplinary platform designed to help students refine their research and creative skills. It promotes collaboration across departments and fosters an environment where academic curiosity meets cultural insight.

This year's journal is sure to spark thoughtful reflection, cross-cultural appreciation, and continued inquiry into the rich tapestry of *World Cultures*.

Yours Sincerely,

Anupurba Mukherjee (Editor)
Aditi Bhavsar (Co-editor)
Shruti Wagh (Co-editor)

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The Business of Entertainment: How Cultural Factors Drive Market Trends

- Aditi Bhavsar (TYBA Economics)

Abstract

Cultural economics and trends in consumption have become important fields of research, examining the complex connection between economic dynamics and cultural habits. This study explores how globalisation, technological progress, and socio-cultural elements influence economic consumption trends, especially within the entertainment and leisure sectors. Employing a mixed-method strategy that combines qualitative analysis with quantitative data, the research assesses the effect of cultural factors on economic behaviours, with an emphasis on case studies from South Korea, China, and India. The article examines the commodification of culture, in which international corporations commercialise cultural items while local markets adapt global trends to preserve distinct identities. Moreover, new technologies like AI, digital streaming, and virtual economies are persistently altering cultural consumption, prompting enquiries regarding the future of cultural industries in a world that is becoming more interconnected. While providing important insights, the research recognises its limitations, such as dependence on secondary data, regional emphasis, and absence of long-term analysis. Upcoming studies should include primary data gathering, broaden their geographic reach, and investigate the changing influence of AI, block chain, and the metaverse on cultural consumption. This study highlights the vibrant relationship between culture and economics, stressing that recognising cultural consumption patterns is crucial for businesses, policymakers, and researchers manoeuvring through the intricacies of a global economy fuelled by creative and cultural sectors.

Keywords

[Consumption Trends, Entertainment Industry, Cultural Commodification, Cultural Consumption, Consumer Behavior]

Introduction

Cultural economics and consumption trends have emerged as significant areas of study, intersecting the fields of economics, sociology, and cultural studies. This interdisciplinary approach explores how cultural factors influence economic outcomes and consumption patterns, and conversely, how economic forces shape cultural practices and preferences. The relationship between culture and economics is complex and multifaceted, as highlighted by Guiso et al. (2006a, 2006b), who argue that cultural elements can significantly impact economic behaviours and outcomes.

Globalisation has played a crucial role in shaping cultural economics and consumption trends in recent decades. As Held et al. (2000) suggest, global transformations in politics, economics, and culture have led to increased interconnectedness and cultural exchange worldwide. This has resulted in evolving consumption patterns, particularly evident in the entertainment industry. For instance, Ding and Yu (2015) note the shift from a record economy to an entertainment economy in China's popular music industry over the past three decades.

The impact of cultural factors on consumption is not limited to the entertainment sector. Musaiger (1993) and Pantano (2011) emphasise the influence of socio-cultural and economic factors on food consumption patterns and consumer behaviour, respectively. These studies underscore the importance of understanding cultural nuances in analysing consumption trends across various industries and regions.

As the global media landscape continues to evolve, so do consumption patterns in the entertainment industry. Albarran (2023) explores the changing dynamics of the media economy, while Fu and Lee (2008) investigate the economic and cultural influences on the consumption of foreign films. These studies highlight the need for a comprehensive understanding of cultural economics in an increasingly interconnected world, where consumption trends are shaped by a complex interplay of cultural, economic, and technological factors.

According to Thorstein Veblen, consumption's symbolic aspect holds greater social and cultural importance than its material or utilitarian function. This observation underscores the significance of the cultural implications revealed through leisure and entertainment consumption. As a distinct cultural mode, leisure and entertainment play a crucial role in emphasising new media culture. Rather than merely depicting social context, leisure and entertainment constitute the social backdrop itself. It conveys cultural narratives through its methods and timing while showcasing local economic growth via these cultural stories to draw in tourists. The close integration of leisure, entertainment, and culture reflects the increasing interplay between cultural and economic spheres [4]. Technological advancements bring about the reproduction and commercialisation of cultural products, encouraging deeper consumer engagement and creating novel sales opportunities as older forms are replaced. In cultural and social philosophy, the economy is considered part of the cultural domain. Many significant economic actions are culturally determined and marked. Cultural and religious inclinations often influence people's consumption and investment choices. Within the framework ofeconomicisation, these choices are represented by symbolic or physical commodity exchanges, resulting in a form of cultural materialism.

In the digital era, leisure and entertainment have been completely separated from the physical level. In the leisure and entertainment industry, successful brand expansion, operation, and marketing strategies, as well as successful R&D at the technical level and the combination of emerging technologies and arts, have laid a solid foundation for the development of this industry. For example, in the form of 3D digital animation film will of animation art originality, through technical assistance entertainment has realised the image of the revolution, aesthetics, change people's perception of traditional aesthetics, create belongs to own a set of characteristic aesthetics, make animation not only become film digital tools, and become the wealth of global business profit. At present, although many leisure and entertainment enterprises incorporate more effects and realistic elements of leisure and entertainment in the traditional framework, they are neither castles in the air nor completely new, maintaining the main-flow values. Therefore, the combination of digital aesthetics and the leisure and entertainment economy has become a trend in the development of leisure and entertainment.

This study uses a mixed-method, qualitative, and quantitative approach to investigate how cultural factors affect patterns of economic consumption. The procedure consists of research design, which is an interdisciplinary approach that involves the use of economic theories, sociological viewpoints, and cultural analysis in research. The focus is on how globalisation, technological advancements, and cultural preferences affect consumption patterns in various industries, with a particular emphasis on entertainment and leisure.

Data Collection Methods: This study uses existing literature (books, journal articles, and reports on current issues) as a source of secondary data analysis: cultural economics, globalisation, and consumption of entertainment through consumption. Cultural economies in South Korea, China, and India are the focus of the research by case studies. The study examines their economic impact and global influence. Market trends and consumer spending patterns are analysed using statistical data, economic reports, and surveys on consumer behaviour. Through the use of labour force data, time-use studies, and policy evaluations, this comparative analysis examines the impact of cultural factors on women's economic participation in the workforce.

Data Analysis: Cultural consumption is identified through the qualitative analysis of case studies and literature to identify recurring themes and patterns. Descriptive and comparative statistics are employed in statistical analysis to analyse quantitative data, such as labour participation rates.

Until recently, economists were reluctant to rely on culture as a possible determinant of economic phenomena. Much of this reluctance stems from the very notion of culture: it is so broad and the channels through which it can enter economic discourse are so ubiquitous that it is difficult to design testable, refutable hypotheses. Without testable hypotheses, however, culture plays no role in economics except perhaps as a selection mechanism among multiple equilibria. In recent years, however, better techniques and more data have made it possible to identify systematic differences in people's preferences and beliefs and relate them to various measures of cultural legacy. These developments suggest an approach for introducing culturally based explanations into economics that can be tested and may substantially enrich our understanding of economic phenomena.

Classical economists were comfortable with using cultural explanations of economic phenomena. Adam Smith viewed his arguments in A Theory of Moral Sentiments as intertwined with his arguments in The Wealth of Nations. John Stuart Mill regarded cultural constraints as sometimes more important than even the pursuits of personal interest. Karl Marx inverted this direction of causality. Rather than culture-determining economic relations, he argued that the underlying technology determines the type of prevailing social structure and even the dominant culture: the hand mill produces a feudal society and steam mill capitalism. In a famous passage in his preface to "A Contribution to the Critique of Political Economy," Marx wrote: In the social production of their lives, men enter into definite relations that are indispensable and independent of their will, relations of production that correspond to a definite stage of development of their material productive forces. The sum of these relations of production constitutes the economic structure of society, the real foundation, on which rise legal and political superstructures and correspond to definite forms of social consciousness. The mode of production of material life conditions the social, political, and intellectual life processes in general. Whereas, Marx saw religion as a byproduct of the relations of production. Max Weber (1905), regarded religion as crucial to the development of capitalism. Any new economic order, argued by Weber, faces initial resistance. Economic incentives are not sufficient to motivate entrepreneurs to break from preexisting orders. However, Weber argued that the Protestant Reformation taught that the pursuit of wealth should be regarded as an advantage and duty. This religious anointment gave the bourgeoisie the moral strength to subvert the previous order and create a new one based on the organisation of free wage earners' economic profit.

An original synthesis of Marx's view of historical evolution and Weber's is provided by Antonio Gramsci. Marx and Gramsci recognise the role played by culture in history. Power is not merely dominance but hegemony, that is, the ability to influence society morally and intellectually. Thus, in class struggles, workers can gain consensus in other social groups by imparting their worldview and system of values to other classes. Cultural hegemony, which refers to the control of the intellectual life of society through purely cultural means, is crucial to political dominance. Hence, Gramsci (1949) argues that not only economic interests but also the dominant culture can explain political outcomes, a link we will study empirically later in this paper. Karl Polanyi agreed with Max Weber (1905 [2001]) that religion was important to the establishment of markets but also viewed religion and culture as a factor in moderating the excesses of the market. In a famous passage, Polanyi, Arensberg, and Pearson write: "The human economy... is embedded and enmeshed in institutions, economic and non-economic. The inclusion of non-economic factors is vital. For religion or government may be as important to the structure and functioning of the economy as monetary institutions or the availability of tools and machines themselves that lighten the toil of labour."

With advances in technology and transportation, globalisation has sped up the flow of ideas, goods, and cultural practices around the world. All economies are becoming interlinked more and more with each passing day, but cultural expressions are also interlinked. This has led to debates between cultural homogenisation and cultural diversification. Specific industries such as the creative sectors, tourism, and the digital economy trade in cultural products and services across borders, reflecting the economic impact of world culture.

1. **The Globalization of Economy and Culture**

Economic globalisation also encourages cultural exchange by lowering trade barriers, increasing migration, and developing technology. Some studies argue that globalisation is not leading to traditional Westernisation but rather a cultural mixture. While countries borrow various foreign cultural aspects, they still retain their own distinctiveness, thereby creating a rich and dynamic global culture.

2. **The Commodification of Culture**

We are living in an age where the culture industry is increasingly commercialised, as economic forces shape how we create and consume culture. Multinational corporations like Disney and McDonald's offer concrete examples of the global marketing of cultural products. Simultaneously, local cultures exploit global markets by commoditising traditional arts, music, and fashion as export goods.

3. **The Challenge of Homogenization vs. Diversification in World Culture**

The debate on globalisation remains: while critics accuse globalisation of cultural homogenisation, case studies indicate that economic globalisation also fosters cultural diversification. The spread of the English language and Hollywood films has standardised certain cultural aspects worldwide, but many countries continue to express strong national identities through film, music, and literature. Furthermore, economic growth in emerging markets has driven local cultural industries, helping to counterbalance Western dominance.

South Korea's Cultural Economy

The South Korean government has vigorously promoted K-pop, films, and television dramas as cultural exports. The Korean Wave (Hallyu) exemplifies how state policies, economic investment, and cultural creativity can drive global cultural influence and economic success. The entertainment industry generates billions in revenue, employing thousands of performers, technicians, and marketers. One global phenomenon is BTS, a K-pop group that has become a cultural export, significantly contributing to South Korea's GDP through album sales, concerts, and endorsements. Government initiatives, such as the Korean Creative Content Agency (KOCCA), further support the expansion of Korean cultural products worldwide.

China’s Soft Power Strategy

China has pursued cultural diplomacy to expand its influence. The Confucius Institutes, which promote Chinese language and culture, operate in more than 150 countries. China’s global media presence has also grown through state-sponsored outlets like CGTN. These initiatives aim to reshape global perceptions of China and strengthen economic ties. Additionally, China’s investment in film—particularly through companies like Wanda Group acquiring Hollywood studios—integrates Chinese culture into global entertainment while maintaining strict control over its domestic market.

Hollywood vs. Bollywood

Hollywood and Bollywood represent two contrasting models of the global film industry. Hollywood, with its high-budget productions, depends on global box office revenues and strategic marketing campaigns to maximise profit. Hollywood films dominate internationally, thanks to extensive distribution networks and the global reach of the English language. By contrast, Bollywood operates with high-volume, lower-cost productions, catering primarily to South Asian audiences. Despite globalisation, Bollywood retains strong cultural elements, such as song-and-dance routines and narratives deeply rooted in Indian traditions.

The Analysis of Women's Economic Activity in Poland and India

The comparative analysis of women's economic activity in Poland and India reveals significant disparities in time allocation between men and women, particularly in household work and market work.

Women in India spend much more time on domestic work than in Poland, which is an even bigger difference for those with children. In India, women accounted for 93% of housework, as opposed to 67%-33% between women and men in Poland.

Market work participation is much higher among Polish women than Indian women. In Poland, women spend around 500+ minutes per day in market work, whereas in India, they spend less than 220 minutes per day.

Marriage is even more negatively related to women's market work in India than in Poland. In India, marriage decreases the market work hours of women by 342 minutes per day, while the decrease is 90 minutes per day in Poland.

There has been significant development in education toward economic participation. In India, a much higher percentage of women are enrolled in primary schooling (81%). They, however, lack quality entry into labour market participation, while the opposite seems to be the case for Poland.

For men in India, their percentages for participation in household work significantly fall compared to those in Poland. It makes the case very clear why many women have minimal to no entry into the labour markets of India.

Single women in India work much more in the market than married women, indicating that marriage restricts female employment opportunities more than child-rearing alone.

<u>STATISTICAL BASIS:</u>

The economic activity of women in families from different cultures

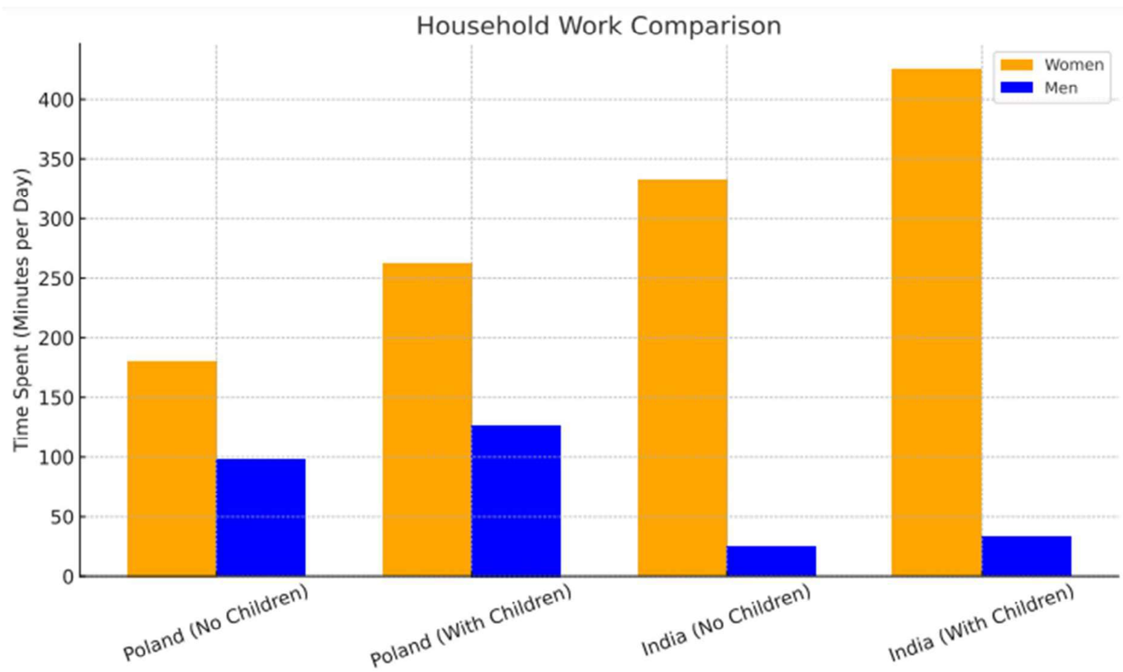

Fig. 1.0: Household Work Comparison

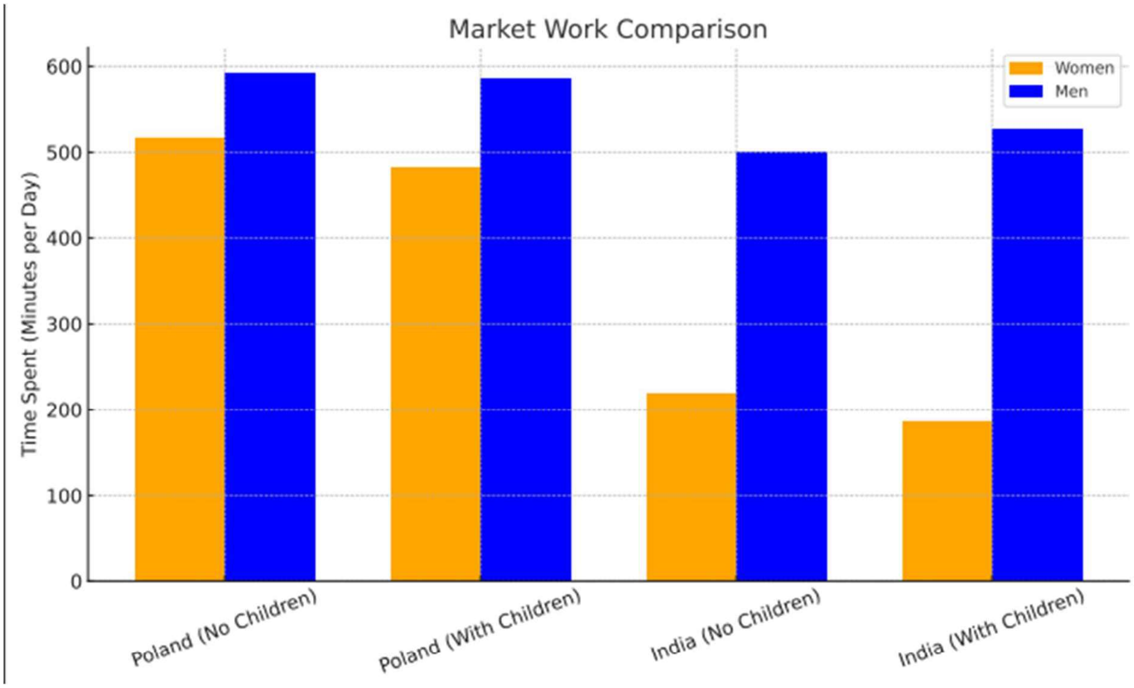

Fig. 1.1: Market Work Comparison of Women

What we get from this:

Polish women have easier access to the labour market, while Indian women are more constrained by household responsibilities and lower education levels.

Marriage significantly limits market work for Indian women, reinforcing traditional gender roles.

Policies in India aimed at promoting gender equality should target redistributive household work, enhance women's education, and support inclusion in the workplace.

In Poland, policies should support working mothers through childcare services to sustain labour market participation.

This study suggests that there is a need for structural change in gender roles and labour policies to empower women economically, especially in India.

Entertainment consumption can be analysed through multiple economic theories, including:

- Utility Theory: Consumers allocate income based on perceived utility and satisfaction from entertainment goods. For example, consumers may choose to spend money on streaming services like Netflix due to the perceived value of convenience, variety, and exclusivity of content. According to a 2023 Statista report, the global video streaming market is expected to reach $108 billion by 2025, driven by increasing consumer preference for digital convenience.

- Elasticity of Demand: Entertainment goods exhibit varying price elasticity, influenced by factors like income levels, preferences, and substitute availability. For instance, box office ticket sales demonstrate elasticity, as consumers are highly responsive to ticket price changes. In contrast, digital subscriptions such as Spotify or Disney+ exhibit inelastic demand, where small price increases do not significantly impact subscriptions. Data from the Motion Picture Association (2022) shows a 30% decline in box office revenues when ticket prices rise by 15%.
- Behavioural Economics: Psychological factors and social influences shape consumer choices in entertainment consumption. The fear of missing out (FOMO) and social trends influence ticket sales for live concerts and major film releases. For example, Taylor Swift's "Eras Tour" set record-breaking ticket sales due to social media hype and fan loyalty, with pre-sales exceeding $2 billion globally (Billboard, 2023). Additionally, limited-time exclusive game releases on platforms like PlayStation and Xbox drive immediate consumer action based on perceived scarcity.

Over the past 30 years, the popular music industry on the Chinese mainland has transitioned from a record-based economy to an entertainment-driven economy. In the 1990s and early 2000s, physical record sales, including CDs and cassettes, were the dominant revenue sources. During this period, state-owned media and traditional distribution channels played a crucial role in shaping the industry. However, the mid-2000s saw a major disruption due to the rise of internet piracy and MP3 downloads, particularly through platforms like Baidu MP3, which significantly impacted record sales and led to declining revenues for artists and record labels. This shift forced the industry to adapt, eventually leading to the rise of digital music platforms as the primary mode of music consumption.

By the 2010s, the music industry in China underwent a major transformation as streaming platforms such as QQ Music, NetEase Cloud Music, and Xiami Music emerged, shifting the revenue model from direct record sales to subscriptions and digital monetisation. Instead of relying solely on album purchases, artists started to focus on alternative revenue streams, including concerts and live events, which became a major source of income. The explosion of music-based reality shows such as *Singer* and *The Rap of China* also played a key role in boosting the commercial value of artists. Additionally, brand collaborations and endorsements became significant revenue streams, further reinforcing the entertainment-driven economy.

Another major factor in the evolution of China's music industry has been the rise of social media and short-video platforms, particularly Douyin (TikTok China) and Kuaishou. These platforms allow songs to go viral, replacing traditional marketing methods and giving independent artists unprecedented exposure. Meanwhile, stronger government enforcement of copyright regulations since 2015 has helped regulate streaming revenues, benefiting artists and music labels by ensuring fairer compensation for digital consumption. However, strict content regulations on lyrics and themes still shape the kind of music that gains mainstream traction.

The globalisation of the Chinese music industry has also played a vital role in its development. Chinese music labels have formed strategic partnerships with international companies, such as Tencent Music's collaborations with Universal Music Group and Warner Music, helping Mandopop and C-Pop gain international appeal, particularly in Southeast Asia. As a result, Chinese artists are increasingly collaborating with international producers and expanding their reach beyond domestic audiences.

The Chinese music industry has shifted from a record-driven model to an entertainment-centred ecosystem, where revenue is primarily generated through digital streaming, live performances, and brand collaborations. The industry is expected to evolve, with AI-powered music production, deeper global partnerships, and innovative monetisation strategies shaping the future of entertainment consumption in China.

The Influence of Cinema on Consumer Behaviour and Consumption Trends:
Cinema has long been a powerful medium for storytelling, shaping cultural narratives, and influencing societal norms. Beyond entertainment, films significantly impact consumer behaviour and market trends. From product placements to aspirational lifestyles depicted in movies, cinema plays a crucial role in shaping consumption patterns, brand preferences, and even purchasing decisions. Here we explores the multifaceted ways in which cinema influences consumer behaviour and consumption trends.

Cinema plays a pivotal role in shaping consumer desires by creating aspirational worlds that audiences often aspire to emulate. The portrayal of characters, settings, and lifestyles in films influences consumer behaviour in various ways, such as fashion and lifestyle choices, with iconic movie characters like Audrey Hepburn in her “little black dress” from Breakfast at Tiffany’s setting enduring trends. Additionally, films serve as visual advertisements for travel destinations, as evidenced by the tourism boom in New Zealand following The Lord of the Rings franchise and the travel inspired by Eat Pray Love to Italy, India, and Bali. Moreover, sci-fi and action films frequently introduce futuristic gadgets, captivating audiences and contributing to the success of brands like Apple through strategic product placements in films like Iron Man and Mission: Impossible. Product placement emerges as a powerful marketing tool, where brands pay for their products to be featured prominently, subtly influencing consumer choices, evident in the sales boost of Ray-Ban sunglasses after their appearance in Top Gun. The psychological impact of cinema on consumer behaviour is significant, as films evoke emotions that can shape purchasing decisions, fostering emotional connections with brands and triggering FOMO (Fear of Missing Out) among viewers. The evolution of cinema's influence on consumption trends has also adapted to the digital age, with streaming platforms enabling direct-to-consumer marketing, social media amplifying movie scenes that impact consumer choices, and interactive advertising allowing viewers to purchase featured products instantly through digital touchpoints. Overall, cinema not only entertains but also serves as a powerful catalyst for consumer desires and behaviours.

The study "**Impact of Different Visual Advertising Media on the Consumer Buying Behaviour of Youth** (18-25 Years), in Jalandhar City," by UpdeshKhinda, explores the influence of cinema advertising on young consumers' purchasing behaviour. It reveals that ads shown before and during movies are more memorable than TV or online ads. Young people associate brands seen in theatres with quality, trust, and luxury, making cinema ads particularly effective in shaping consumer habits.

One significant finding is the emotional connection cinema ads establish between brands and viewers. Unlike TV or social media ads that are often skipped, cinema ads demand full attention, leading to better brand recall and a stronger urge to buy. Young moviegoers frequently seek out products from these ads, notably in categories like fashion, electronics, and food and beverages. Regular exposure to brands in theatres enhances loyalty and familiarity, boosting purchase likelihood.

The study also indicates that cinema advertising outperforms TV, social media, and print in swaying young people's buying choices. The captive theatre audience and the powerful visual and audio experience make cinema ads more engaging and convincing. Ads for luxury brands, gadgets, and premium fashion items are particularly effective in theatres, creating an aspirational allure. This association with higher social status influences young consumers' purchasing decisions.

The findings recommend that brands targeting 18-to-25-year-olds should prioritise cinema advertising in their marketing plans. The emotional and aspirational impact of these ads plays a crucial role in shaping youth buying trends. Marketers can increase engagement through storytelling-driven ads that resonate with young audiences. Cinema owners and advertisers can leverage these insights by offering prime ad slots to brands aimed at young consumers. Cinema advertising remains a potent method for forging strong consumer connections, reinforcing brand identity, and boosting sales among young audiences.

FINDINGS

1) Cultural factors, globalisation, and technological advancements have collectively transformed consumption patterns across industries like entertainment, food, and fashion, making digital aesthetics a crucial element in modern consumption.
2) Films shape consumer preferences through aspirational storytelling, product placements, and immersive advertising, with cinema ads proving especially effective in influencing young audiences and driving brand loyalty.
3) The interplay between cultural homogenisation and diversification continues as multinational corporations leverage cultural products globally while local markets adapt and commercialise traditional arts for international appeal.
4) Countries strategically use entertainment for economic and cultural influence—South Korea's Hallyu Wave boosts GDP, China's soft power investments expand its global media presence, and Hollywood and Bollywood reflect diverse economic models with cultural interdependencies.
5) Women's labour participation is shaped by cultural and economic constraints, with Indian women facing greater household burdens compared to Polish women, highlighting the need for policies that promote gender equality in work and education.
6) The Chinese music industry has transitioned from physical record sales to an entertainment- driven digital economy, with streaming platforms, copyright regulations, and social media shaping modern music consumption.

LIMITATIONS

Notwithstanding the holistic methodology employed in this research to investigate the convergence of cultural economics and consumption patterns, several restraints need to be recognised here, pointing toward future research and improvement in methodologies. The research mostly depends on secondary sources, including journal articles and economic reports, which might lack the immediacy of happenings on the ground in cultural economics and might present biases for having been conducted using particular methodologies in the field studies. The study mainly concentrates on the entertainment and leisure sectors, excluding others such as fashion and tourism that also have great impacts on cultural economics. A one-time cross-sectional analysis does not take into account the development of consumer tastes and economic systems and recommends that longitudinal research would be useful for ascertaining long-term trends. The research also generalises cultural effects, neglecting differences across various demographic groups, and does not adequately consider the implications of new technologies like artificial intelligence and the metaverse on cultural consumption. In addition, it is not provided with an in-depth study of how cultural consumption is influenced by government policies and economic fluctuations, and it is unable to measure the economic effect of cultural goods because of their intrinsic and social value. To overcome these constraints, future studies must include primary data collection techniques, increase geographical coverage, study a broader spectrum of industries, carry out longitudinal research, study micro-level consumption variations, investigate the role of new technologies, evaluate policy effects, and construct alternative measures of cultural value. By examining these domains, subsequent research can offer a more complete picture of cultural economics, helping policymakers, firms, and academics navigate the intricate dynamic between culture and economic activity.

CONCLUSION

This study demonstrates how globalisation, technical improvements, and socio-cultural influences shape purchase habits, especially in the entertainment industry, highlighting the complex interplay between culture and economics. The study emphasises how cinema has a significant impact on consumer behaviour, how cultural exports like Bollywood and K-pop have an economic impact, and how digital platforms are changing how people consume media. The study also shows notable gender differences in economic involvement, highlighting the necessity of inclusive and equal opportunity policies.

Although the results provide insightful information, limitations like the use of secondary data and the regional focus point to the need for more study. To gain a more thorough grasp of cultural economics, the scope should be expanded to include primary data gathering, cross-industry comparisons, and longitudinal studies. Future research must examine cutting-edge themes like AI-driven entertainment and the influence of the metaverse on consumer behaviour as global markets and technology continue to develop. Because it shapes consumer tastes and commercial demands, cultural economics has a substantial impact on consumption trends. Businesses and officials trying to negotiate the intricacies of a worldwide economy must have a thorough understanding of cultural considerations. Future studies ought to examine how new cultural trends—like sustainability and digitisation—continue to alter economic environments.

In the end, cultural economics is still a dynamic field that affects company strategy as well as economic policy. In an increasingly interconnected world, stakeholders may promote innovation, cultivate cultural variety, and generate sustainable economic growth by acknowledging and utilising the interaction between cultural and economic factors.

The Interplay of Science and World Cultures

- **Adwait Mahajan, Bhargavi Godbole, Shruti Wagh**
(SYBSc Physics)

Abstract

Science and culture, as different as they may seem, are deeply interconnected. They have influenced each other throughout history, and their interdependence is a beautiful approach to understanding the universe. While science strives for objective truths, its development, interpretation, and application are sometimes shaped by cultural contexts. Astronomy, mathematics, technology, etc., all developed due to cultural exchange between different societies. Yet there may exist cultures that oppose scientific endeavours; it is better for the cultures to embrace things that benefit them in the long run. Knowledge transfer between cultures advances science. Culture also has its effects on science. Ethical concerns influence scientific fields like genetics and medical research, and modern physics relates to ancient eastern wisdom. In this article, we shall understand the interplay of cultural philosophies and science, take part in the debate on whether science is universal or culturally relative, and also look at barriers in science communication and how we can improve it. In the end, we shall conclude on the true nature of science and its relationship with world cultures and how acknowledgement of it would foster a deeper understanding of the universe.

Keywords: Universalism,Relativism,Quantum mechanics,Relativity, Philosophy, Mysticism

Introduction

What is science? It is a noble pursuit of wisdom and knowledge. You might envision lab coats, test tubes, rockets, and such, but it is much more than that—it is a humble endeavour to comprehend the world around us. It is a systematic pursuit, deliberate and measured, through careful observation, experimentation, and rigorous testing. One forms a hypothesis, strives to prove it, and shares the findings with the world for everyone's benefit. It is this scientific method that has led to discoveries of various universal truths, like gravity, atoms, and the classification of animals and plants, and even everyday stuff like the temperature at which water turns to ice. What does this have to do with culture? one may ask. Though it may be seen to be very different from culture, they both are, in the end, human endeavours. And history tells a different story. Science evolves with cultural contexts, shaped by the priorities, ethics, and philosophies of various societies. The questions we ask, the methods we choose, and the way we interpret our findings—everything is through the influence of our own cultures. We may often look at science through the tinted lens of culture.

Similarly, culture is not unaffected by science. It is transformed by scientific progress. The pursuit of science changes old values and traditions to fit better with the society of that time. It was a part of ancient cultures: astronomy and astrology are deeply intertwined, the construction of architectural marvels that the ancient places of worships like temples are, the concepts of the world being made of particles, and prayers being offered to the source and end of the universe that is precisely energy, concept of time, etc. Each society approached science through its unique lens, and thus science made its way into these societies and tied them together in such a poetic manner. While scientific discoveries may be universal, the way cultures warmed up to them is relative. Science has the power to bridge these cultures and transcend the boundaries of space and time.

In recent times, modern physics has challenged traditional Western ways of thinking, yet it resonates with Eastern cultures; the concepts of quantum mechanics relativity suggest the universe is interconnected and non-permanent, like an illusion, which is quite similar to the Hindu, Buddhist, and Taoist perspectives of reality. As science continues to evolve, we understand that it is not just a mere compilation of facts but a beautiful pattern intricately woven into human culture and history. In this article, we shall explore the interplay of science and cultures, observe their relationship, explore how they have impacted each other and evolved together, and how it is essential for truly understanding the universe around us. We will see how cultural values shape scientific research, how scientific discoveries impact cultural practices, the debate between universalism and relativism in science, some ethical dilemmas, and the importance of science communication.

Ultimately, we believe that a more honest approach to science is very important and would acknowledge our human roots in the evolution of science and the culture of science.

Foundations of Science, Cultural philosophies and their Similarities

In various cultures across the world, we observe many traditions that may be different, but their view of the world is essentially observed to be the same. It is a view based on mystical experience on a direct, non-intellectual experience of reality consisting of various fundamental characteristics independent of the cultural background. These elements also seem to be the fundamental features of the worldview emerging from modern physics.

The most important characteristic of the eastern worldview is the awareness of unity and mutual interrelation of all things and events, the experience of all phenomena in the world as manifestations of a basic oneness. All things are seen as interdependent and inseparable parts of this cosmic whole as different manifestations of the same ultimate reality. It is called the brahma in Hinduism, dharmakaya or tathata in Buddhism, and Tao in Taoism. It becomes apparent in modern physics at the atomic level and more and more as one penetrates deeper into matter, down to the subatomic particles.

In the book Tao of Physics by Fritjof Capra, we see a deep interplay drawn between physics and reality as understood in various cultures. He elaborates on the dynamic nature of reality, which is constantly under flux, which is evident in physics in the behaviour of subatomic particles, which are dynamic patterns of energy. Eastern mysticism has described reality in a similar way as a continuous flow where everything is impermanent and ever-changing. The way Taoism shows the interplay of yin and yang symbolises the dynamic balance of opposites, and Buddhism teaches that all things are transient and interconnected.

One of the most significant convergences between modern physics and Eastern mysticism is their transcendence of traditional dualities. Both frameworks challenge the dichotomies of: Subject vs. Object: Quantum physics reveals that the observer and the observed are deeply intertwined, while Eastern traditions view the distinction between self and the external world as an illusion. Mind vs. Matter: Both perspectives suggest that consciousness and the material world are not separate but part of a unified reality. Part vs. Whole: The universe is understood not as a collection of isolated parts but as an interconnected whole, where each part reflects the totality.

This non-dual understanding of reality underscores the potential for a more integrated worldview, bridging the gap between scientific and cultural perspectives. Further, we find an elaboration in the above book on paradigm shift in physics and the revolutionary nature of modern physics, particularly quantum mechanics and relativity. We can focus on a few points as follows: Quantum physics reveals that particles are not isolated entities but part of an interconnected web of relationships. Notions of space and time are of paramount importance in our attempts to understand nature through philosophy and science. The modification of these in the theory of relativity was one of the greatest revelations in science to further go hand in hand with multiple cultural views of the same. In classical understanding, these were said to follow Euclidean geometry rules, which in the West were considered to be true and unquestionable properties of nature. In Greek thoughts, we observe geometry as described to be inherent in nature instead of being a part of the framework used to describe nature. Geometry was therefore at the centre of all intellectual activities and formed the basis of philosophical training. The Greeks believed that their mathematical theorems were expressions of eternal and exact truths about the real world and that geometrical shapes were the absolute beauty of nature, considering geometry to be a combination of logic and beauty, thus believed to be of divine origin. Hence the widely known Plato's dictum, "God is a geometer.". Thus, in Greek, heavenly bodies were expected to be in perfect geometrical shapes, leading to the thought that heavenly bodies had to move in circles. Thus, leading to the conclusion in Greek minds that everything was going around in circles with the earth in the centre. This was set in their minds until the great efforts of Copernicus and others to make philosophers and scientists realise that geometry is not inherently present in nature but imposed upon it by the mind.

Eastern philosophy, unlike that of Greeks, has always maintained that space and time are constructs of the mind. The East treated it as any other intellectual concept: as relative, limited, and illusionary. In a Buddhist text, for example, we find the words, "Oh monks, that the past, the future, physical space, and individuals are nothing but names, forms of thought, words of common usage, merely superficial realities.". Thus, in the far east, geometry never attained the status it had in Greece, although this does not mean they had little knowledge of it. The Indians and Chinese used it extensively in building altars of precise shapes and in measuring the land, but never to determine abstract and eternal truths. This is evident from multiple Indian architectures of temples, such as the hanging pillar temple in Lepakshi, Andhra Pradesh, or the Konark sun temple, which is a UNESCO world heritage site known for its architecture and geometry. It is an example of personification of the sun as god, as it was seen as an important factor for life existing on earth. It is directly and materially linked to brahmanism and tantric belief systems. It is designed in the shape of a gigantic chariot with 12 pairs of elaborately carved stone wheels, pulled by seven horses. These 12 wheels symbolise the 12 months of the year and also represent the 12 largely observed constellations, or the zodiacs. The temple is aligned in such a way that the sun's rays create different views and shadows, as the sun's apparent position shifts throughout the day and across the seasons. This design allows for 12 distinct views of the temple, corresponding to the 12 months of the year. The temple is also a testament to the ancient Indian understanding of astronomy, as it was constructed to mark the movement of the sun and the passage of time. The precision in its alignment and design reflects the deep knowledge of geometry and celestial patterns possessed by its architects of that time, all aligning with today's advancements. This above-mentioned philosophical attitude is also reflected in the fact that ancient eastern science generally did not find it necessary to fit nature into a scheme of straight lines and perfect circles. Thus, the ancient Eastern philosophers and scientists already had the attitude that is basic to relativity theory: that our notions of geometry are not absolute and unchangeable properties of nature but intellectual constructions. In the words of Ashwaghosha, “Be it clearly understood that space is nothing but a mode of particularisation and that it has no real existence of its own. Space only exists in relation to our particularising consciousness.”

The same applies to our idea of time. Eastern mystics link the notions of both space and time to particular states of consciousness. Being able to go beyond the ordinary state through meditation means that the conventional notions of both of the concepts of space and time are not the ultimate truth. The refined notions of these resulting from their mystical experiences appear to be in many ways similar to those of modern physics, as exemplified by the theory of relativity. This view is based on the discovery that all space and time measurements are relative. The relativity of spatial specifications wasn't new, as it was known before Einstein that the position of an object can only be defined relative to some other object, usually done with the help of three coordinates and the point of measurement known as the location of the observer, or the Euclidean space of the 3-coordinate system and origin in today’s science. The temporal order of two events was assumed to be independent of any observer. Specifications referring to time, such as before, after, or simultaneous, were thought to have an absolute meaning independent of any coordinate system. Thus, relativity theory has forced us to abandon the classical concepts of absolute space and absolute time. Relativity theory has shown that space is not three-dimensional and time is not a separate entity. Both are intimately and inseparably connected and form a four-dimensional continuum that is called “space-time.”. Thus, in relativistic physics, we cannot talk about space without talking about time, and vice versa.

To understand this, we can get a gist of this largely discussed theory of relativity here. What was Einstein trying to convey? Well, to study anything in classical physics, we look over three characteristics of the observed system, which are mass, time, and length. We understand from Einstein's theory that all these three aspects are perceived in relativism with the observer’s velocity. We have always heard that the speed of light is the fastest in the universe, but hasn’t anyone tried to go faster? Well, through his theory, we understand that if anything’s velocity in this universe approaches the velocity of light, these 3 studied parameters show a major change. That is, if one's velocity approaches that of light, their mass dilates approaching infinity, the time also dilates, and length contracts. Thus, these three main notions were understood in Einstein's theory of relativity. He further also explains the nature of gravitational force in the special theory of relativity, a question many had been seeking answers to, by comparing its nature to that of a stretched fabric. As a conclusion to this point, what do we take away? That science and diverse philosophies obtained in various cultures are not very different. In fact, they can be said to be going hand in hand, and we can seek inspiration for the future of science in various cultural philosophies.

Science as a Product of Culture

Science evolves with the background of cultural values, beliefs, and societal priorities. Cultural factors tend to influence the focus of scientific studies. Societies that place strong emphasis on economic development and defence power allocate higher resources for science and technology. However, spiritual or philosophical knowledge-orientated cultures tend to evolve science differently. Scientists are conditioned by their cultural backgrounds, which may condition their research problems and methods. In some cultures, human genetics research can be promoted, while in other individuals it can be limited because of ethical or religious reasons. Cultural assumptions also condition the interpretation of scientific information. Various societies apply the same information but draw varied conclusions depending on their cultural perspectives. In the same way, the evolution of scientific technologies and theories is determined by cultural requirements. For instance, societies with a maritime culture traditionally emphasized developments in shipbuilding and navigation. Some societies embraced scientific change, while others did not. This typically relies on cultural openness, religious doctrine, or political systems. Societies that promote questioning and experimentation advance scientifically, while those that oppose change can slow scientific advancement.

Examples: Indian civilisation: Scientific developments in ancient India were intertwined with religious and philosophical traditions. Ayurveda, the indigenous medical tradition, evolved on the basis of cultural beliefs regarding balance in the body. The discovery of zero, which transformed mathematics, was shaped by Indian philosophical concepts regarding nothingness. Mesopotamians created one of the earliest written accounts of scientific information, especially in astronomy and mathematics. Their timekeeping and calendar systems were influenced by their cultural emphasis on astrology and religious ceremonies.

Cultural Relativism vs Universalism in Science

Science has usually been considered an objective quest for truth that is independent of culture and society. However, a long-standing debate exists. Some claim that science is filled with social and cultural values. That is, it reflects the social and political values, philosophical assumptions, and intellectual norms of the culture in which it is practiced. Others claim that science is universal. That is, science is above national and cultural differences and is independent of social, political, and philosophical values and intellectual standards of the culture in which it is conducted. This debate raises critical questions about the nature of scientific knowledge: Does science always reflect social and cultural values, or is science universal?

Universalism claims that science is objective and its principles can be applied no matter the cultural setting. This view emphasises that scientific facts, checked through strict methodology, exist independent of cultural interpretation. The scientific process, with its emphasis on empirical evidence, peer review, and replicability, seeks to generate knowledge independent of cultural attitudes. Although cultural influences can bear upon scientific investigation, the scientific process seeks to ensure that knowledge is tested, improved, and confirmed independent of people's beliefs. It claims that any well-conducted experiment will produce the same data irrespective of where it was carried out. The strength of science lies in its self-correcting process. Peer review, experimentation, and replication eliminate personal and cultural bias. In contrast to cultural traditions, scientific arguments need to be falsifiable—they should be able to pass scrutiny from scientists globally. This way, the findings are not based on one cultural view. Even with differences in culture, scientists everywhere contribute to cumulative knowledge.

However, cultural relativism challenges this view by arguing that scientific knowledge is inevitably shaped by cultural values and perspectives. This would imply that each culture can end up with unique methods of knowing and understanding the world, valid more or less only within the given social environment. This view arises from the understanding that we can only perceive other cultures through the lens of our own culture. Cultural relativism highlights how research priorities, the interpretation of data, and even the framing of scientific questions can be influenced by the cultural background of scientists and the societies in which they operate. Various societies have distinct worldviews, which are shaped by their philosophical, linguistic, and historical contexts. For example, Ayurveda and Traditional Chinese Medicine are holistic systems that trade in balance and harmony rather than reductionist biological models.

Finally, a balanced strategy is required. While scientific principles are universal, the interpretation and application of science are frequently shaped by cultural outlook. Recognising the contributions of diverse knowledge systems—without dismissing their validity—can enrich scientific inquiry.

Science Communication

Scientific information is transmitted across languages and cultures with some challenges. Scientific terms do not always have literal translations, which can cause confusion. Cultural variations in education and belief systems can also affect how scientific messages are interpreted. Cultural brokers are essential in filling such gaps. They are those individuals who know both science and the cultural context and facilitate translating such sophisticated ideas into terms that can be grasped by various societies. They also ensure that scientific information is provided in a manner that is appropriate and respectful to local customs and values.

Limitations

This article delineates the intertwining relationship of science and cultures around the globe; however, it has certain shortcomings. To begin with, most of the information provided is in a multitude of literature but lacks a field study; rather, it draws on history and philosophy. The selection of examples is not comprehensive and does not take into account every single angle on science, more so from indigenous cultures that are quite often neglected or unheard of. Moreover, the dispute between cultural relativism and universalism, as practiced in science, is rather deep and complex, and this article serves only as a starting point instead of providing nuanced details. Finally, there are chosen views in the article aimed at contributing to the understanding of cultural plurality, but the literature and sources available are rather scarce, which poses a risk of bias towards particular schools of philosophy or leaving others out. Understanding this interplay could be furthered by interdisciplinary studies, in which anthropology, sociology, and modern science could greatly contribute.

Conclusion

In this article, we've seen multiple ways in which science and culture stay one. Though we may not find them very related at first thought, as we go deeper into the studies of both eastern cultural philosophies and modern science, we find that they don’t give us fundamentally separate findings.

Apart from this one major thing of oneness of the universe observed in the concepts of Brahma or Tao, we not only see the mutual nourishing coexistence of both science and culture but also the contributions of culture and science to each other. Many believe that science develops with the filtering lenses of culture and society, thus giving us many ancient eastern findings such as Sushrut's Ayurveda, Aryabhata’s zero, Arabic numbers, Mesopotamian timekeeping, Chinese philosophies, and many more. Not only this, but it has also risen into a debate of whether or not culture impacts science's advancement in today’s world and vice versa. Further, we also see that science communication is an essential requirement of science for it to progress flawlessly. People must understand it without other beliefs and societal factors affecting or changing the apparent perception of ongoing advancements. We finally conclude on the basis that culture and science are not independent of each other and do not differ fundamentally in the outputs obtained in both. We must thus find a balance and recognise contributions without dismissing their validity to enrich both science and culture and their interplay.

References

1. Book: The Tao of physics by Fritjof Capra
2. “Physics as a Cultural Heritage”, Sonja Draxler and Max E. Lippitsch, 2008
3. “Ancient Hindu Science: Its Transmission and Impact on World Cultures”,Alok Kumar, 2019
4. “Science and culture”, Maurizio Iaccarino
5. unesco.org
6. britannica.com
7. ncbi.nlm.gov
8. asiasociety.org
9. https://www.reddit.com/r/askscience/comments/ih8t6/does_science_reflect_social_and_cultural_values/
10. https://www.reddit.com/r/askscience/comments/p0w25/it_is_well_known_that_science_influences_art_and/
11. https://mindthegraph.com/blog/how-does-culture-influence-science/

CULTURAL INFLUENCES ON FINANCIAL DECISION-MAKING: COMPARATIVE QUANTITATIVE STUDY OF SAVINGS, BORROWINGS AND INVESTMENT PATTERNS IN INDIA AND USA

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Abstract
This research paper explores the influence of cultural differences on financial behaviours in India and the USA, focusing on savings, borrowing, and investment patterns. Employing quantitative methodologies such as descriptive statistics, correlation analysis, and regression modelling, the study analyses secondary data from the World Bank and IMF for a comparative assessment. The results reveal that individuals in India tend to prioritise savings and engage in long-term, low-risk investments, driven by deep-rooted familial obligations and a strong preference for financial security. Conversely, Americans demonstrate a propensity for higher borrowing and increased involvement in high-risk investments, indicative of a culture characterised by consumerism and reliance on credit. These are broad trends based on statistical data. The investigation also highlights the impact of government policies, economic frameworks, and historical contexts on these financial behaviours. This study emphasises the necessity of understanding cultural factors in financial decision-making, providing valuable insights for policymakers, financial institutions, and global investors. Future research endeavours should consider integrating qualitative approaches and extending the dataset to analyse longer financial cycles for a more nuanced understanding of evolving financial behaviours.

Keywords
[financial behaviour, Cultural differences, Savings, Borrowing, Investments, Quantitative analysis, Economic indicators, India, USA]

Introduction
Several macroeconomic variables influence a country's financial planning, including income levels, spending habits, family size, number of dependents, expected lifespan, the country's monetary and fiscal policies, etc. Additionally, it is important to consider cultural aspects when developing macroeconomic policies or analysing the financial behaviour of people in a specific country. Cultural values play a crucial role in influencing perceptions and decisions of the people, which build the structure of the society. One of the reasons a country's financial behaviour differs from other countries is because of a country's traditional and cultural values. The government has to take into account these values while implementing economic reforms. These reforms are necessary to keep pace with global financial trends and challenges. India also underwent economic reforms in 1991. It significantly impacted financial behaviour by increasing access to financial products and market-based investments and encouraging saving habits. All this necessitates a cross-country comparison of the financial behaviour of economic entities to study the pattern and to make policies accordingly.

As cultural beliefs and psychological factors are there, they determine the propensity of people to save. Most of the researchers believe that savings are determined, among other things, by habits.

The researchers believe that differences in national culture correspond with the average level of financial capabilities in different countries. They established a positive connection between financial opportunities and cultural factors such as individualism, long-term orientation, and indulgence. These financial trends are influenced by the country's economic condition, including whether it is developing or developed, as well as its economic history. There is a positive relationship between economic growth and savings patterns. C.B. Gabler et al. (2020) proved that the propensity to save affects consumption and life satisfaction. The ability to earn income affects the ability to save.
The objective is to focus on the financial behaviour affected due to cultures.

Different cultures approach saving in varied ways; some prioritise long-term security, while others focus on immediate consumption. This distinction is often linked to long-term orientation versus short-term orientation. For example, countries like India emphasise family security and future financial stability, and because of their limited social welfare systems, they tend to have higher savings rates (Chakrabarti & Ghosh, 2020). In contrast, countries like the USA emphasise short-term spending and value quick financial gratification over long-term savings, influenced by consumerism and an individualistic culture.

The borrowing culture varies significantly between different regions due to differing attitudes toward debt. In many Western countries, borrowing is perceived as a means of financial growth, allowing individuals to use credit for consumption and lifestyle enhancements. In these societies, debt is normalised and readily accessible, leading to what are known as debt-tolerant cultures. Research by Brown et al. (2016) indicates that Americans tend to be more comfortable with debt, attributed to higher financial literacy and well-structured repayment mechanisms.

Conversely, in many Eastern cultures, debt is viewed as a burden and a financial risk, with a stronger emphasis on saving. These societies demonstrate a debt-averse mentality, where loans are typically acquired only for essential needs such as education or housing. In India, for example, borrowing is approached with caution, and this debt aversion is deeply rooted in cultural values that prioritize financial independence and reliance on familial support (Banerjee & Duflo, 2019).

Researchers have concluded that culture can influence the degree of loss aversion. They demonstrated a connection between loss aversion and the prevalence of major religions in a country, noting that the link between loss aversion and macroeconomic variables is significantly weaker compared to the impact of culture and emotions.

The analysis uncovered several significant insights regarding the correlation between national culture and financial behaviour. Based on the studies referenced, it can be inferred that particular elements of national culture influence the strength of the relationship between economic growth and financial practices. Furthermore, national culture is pivotal in shaping corporate finance decisions, household savings patterns, and broader financial systems. This highlights the necessity of incorporating cultural factors when evaluating financial outcomes.

This paper emphasises the quantitative research approach to examine the cultural differences between India and the USA in terms of saving, borrowing, and investment. The methodology involves analysing secondary data and employing statistical techniques to compare financial behaviours in these two countries.

This study is both comparative and descriptive, utilising numerical data to identify patterns and relationships in financial behaviour. The research aims to quantify how cultural factors influence financial decision-making by analysing national economic indicators.

We have selected 5 years from 2018 to 2022 and collected data regarding savings, borrowings, and investments for those years. This study uses data from the World Bank and the International Monetary Fund (IMF) because of their reliability, global standardisation, and comprehensive coverage of macroeconomic indicators. These institutions offer credible, unbiased, and transparent data on important financial metrics such as savings, debt, and investments, which ensures accurate comparisons across countries. Their standardised methodologies allow for a consistent analysis of financial behaviour in both India and the USA.

The quantitative methods in this study—descriptive statistics, Pearson's correlation, regression analysis, and hypothesis testing—offer insights into financial behaviours in India and the USA but only capture cultural influences indirectly. Financial indicators like savings, debt, and investment serve as proxies for underlying cultural attitudes such as risk tolerance and long-term planning. Future research could use qualitative methods, including interviews and surveys, to more directly assess these cultural dimensions, allowing for a deeper understanding of how values shape financial decisions alongside the numerical analysis provided.

We will be using the following comparative analysis tools for the quantitative study:

1. **Descriptive Statistics**: The mean measures the average savings rate, debt levels, and investment patterns in both countries, while variance assesses fluctuations in financial behaviours over time.

2. **Correlation Analysis**: Pearson's correlation coefficient will measure the linear relationship between the financial indicators of India and the USA. This analysis reveals whether the financial trends in the two countries move in the same direction (indicating a positive correlation) or in opposite directions (indicating a negative correlation) and how strongly they are related.

3. **Regression Analysis**: This method quantifies the relationship between financial variables, exploring how one variable impacts another. In this analysis we have taken 2 different analyses of India and the USA, respectively, in which we have considered investment as a dependent variable that is affected by the other two independent variables, that is, savings and debt.

4. **Hypothesis Testing**: This process is used to statistically determine whether observed differences in financial behaviours are significant or merely due to random chance. For each financial behaviour (savings, borrowing, investment), setting up a hypothesis:

Null Hypothesis (H_0): There is no significant difference between the financial behaviour of the USA and India. (Any observed differences are due to random chance.)
Alternative Hypothesis (H_1): There is a significant difference in financial behaviour between the USA and India.

Mathematically:

- H_0: $\mu_1 = \mu_2$ (The mean values of savings, borrowing, or investment in the USA and India are equal.)
- H_1: $\mu_1 \neq \mu_2$ (The mean values are different.)

We have tested the hypothesis using the Mann-Whitney U Test (Wilcoxon Rank-Sum Test)

DATA -

- Gross savings (% of GDP), (World Bank)

	2018	2019	2020	2021	2022
INDIA	31.41	29.7	28.68	29.87	29.89
USA	19.23	19.43	18.39	17.75	18.42

- General Government Gross Debt (% of GDP), (World Bank)

	2018	2019	2020	2021	2022
INDIA	70.39	75.04	88.43	83.49	81.68
USA	106.83	108.07	131.99	124.96	120.03

- Gross Fixed Capital Formation (% of GDP), (World Bank)

	2018	2019	2020	2021	2022
INDIA	29.46	28.45	27.32	29.58	30.75
USA	21.30	21.33	21.59	21.28	21.37

DESCRIPTIVE STATISTICS

Mean = $\underline{x} = \frac{\sum xi}{n}$

where, x_i = individual data value, n = no. of data values

	India	USA
Mean Savings	29.91	18.64
Mean Debt	79.81	118.38
Mean Investment	29.11	21.37

Variance = $\sigma^2 = \frac{1}{n}\sum_{i=1}^{n} \quad (x_i - \underline{x})^2$

Where, x_i = individual data value, n = no. of data values, and $\underline{x}$ = mean of the data

1. Variance of Gross Savings
   i) India - 0.9532
   ii) USA - 0.3750
2. Variance of General Government Gross Debt
   i) India - 40.5666
   ii) USA - 94.2988
3. Variance of Gross Fixed Capital Formation
   i) India - 1.3345
   ii) USA - 0.0126

PEARSON'S CORRELATION

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{\left[n\sum x^2 - (\sum x)^2\right]\left[n\sum y^2 - (\sum y)^2\right]}}$$

1. Gross Savings Correlation = 0.3991
2. General Government Debt Correlation = 0.9791
3. Gross Fixed Capital Correlation = -0.6702

SAVINGS

INDIA (x)	USA (y)
31.41	19.23
29.70	19.43
28.68	18.39
29.87	17.75
29.89	18.42

Here, n = 5

4 r = 0.3991

BORROWINGS

INDIA (x)	USA (y)
70.39	106.83
75.04	108.07
88.43	131.99
83.49	124.96
81.68	120.03

Here, n = 5

4 r = 0.9791

INVESTMENTS

INDIA (x)	USA (y)
29.46	21.30
28.45	21.33
27.32	21.59
29.58	21.28
30.75	21.37

Here, n = 5

4 r = -0.6702

REGRESSION ANALYSIS

INDIA

SAVINGS	DEBT	INVESTMENT
31.41	70.39	29.46
29.70	75.04	28.45
28.68	88.43	27.32
29.87	83.49	29.58
29.89	81.68	30.75

Regression analysis was done using Excel.

	Savings	Debt
Coefficients	1.5593	0.1307
P-value	0.3721	0.5575
t-stat	1.1410	0.6979
R-square	0.4463	

USA

SAVINGS	DEBT	INVESTMENT
19.23	106.83	21.30
19.43	108.07	21.33
18.39	131.99	21.59
17.75	124.96	21.28
18.42	120.03	21.37

Regression analysis was done using Excel.

	Savings	Debt
Coefficients	0.2385	0.0201
P-value	0.0197	0.0111
t-stat	7.0170	9.3913
R-square	0.9783	

HYPOTHESIS TESTING

Comparing Two Groups - USA vs India

- **Mann-Whitney U Test (Wilcoxon Rank-Sum Test)** → comparing savings, debt, or investment between USA & India
- Mann-Whitney U Test is calculated as –

$$U_1 = R_1 - \frac{n_1(n_1 + 1)}{2}$$

And

$$U_2 = R_2 - \frac{n_2(n_2+1)}{2}$$

Where R_2 are the rank sums

And the sample sizes, here both sample sizes are 5

$$U = (U_1, U_2)$$

Decision Rule:
If the computed value U is less than or equal to the critical value, reject H_0.
Otherwise, accept H_0.

SAVINGS

- Null Hypothesis (H_0):
  The distributions of gross savings (% of GDP) in India and the USA are identical (i.e., there is no difference in their central tendencies).
- Alternative Hypothesis (H_1):
  The distributions differ (i.e., there is a significant difference in their Gross savings (% of GDP) between India and the USA).

  In our case, $U = 0$ the critical value is 2

There is a significant difference between the Gross savings (% of GDP) of India and the USA.

BORROWINGS

- Null Hypothesis (H_0):
  The distributions of General Government Gross Debt (% of GDP) in India and the USA are identical (i.e., there is no difference in their central tendencies).
- Alternative Hypothesis (H_1):
  The distributions differ (i.e., there is a significant difference in their General Government Gross Debt (% of GDP) between India and the USA).

  In our case, $U = 0$ the critical value is 2

There is a significant difference between India's General Government Gross Debt (% of GDP) and the USA's.

INVESTMENTS

- Null Hypothesis (H_0):
  The distributions of Gross Fixed Capital Formation (% of GDP) in India and the USA are identical (i.e., there is no difference in their central tendencies).

- Alternative Hypothesis (H_1):
  The distributions differ (i.e., there is a significant difference in their Gross Fixed Capital Formation (% of GDP) between India and the USA.

  In our case, $U = 0$ the critical value is 2

There is a significant difference between the Gross Fixed Capital Formation (GFCF) % of GDP of India and the USA.

DATA INTERPRETATION

SAVINGS-

Savings play a crucial role in the domestic market and in shaping the fiscal and monetary policies of a country. In the case of India and the USA, the mean savings rate in India (29.91%) is significantly higher than that of the USA (18.64%). Additionally, India has a higher variance in its savings rate (0.9532) compared to the USA (0.3750), indicating greater fluctuations in India's savings over time.

This can be attributed to India's saving patterns, where individuals tend to save a larger portion of their income. This behaviour reflects cultural preferences for financial security, long-term stability, and a general aversion to risk. In contrast, the USA has a consumer-driven economy that encourages spending rather than saving, supported by a well-developed credit system and various social welfare benefits.

Data indicates that during the COVID pandemic from 2019 to 2020, there was a severe impact on employment rates during the lockdowns, leading to increased consumption and low saving rates.

According to Pearson's correlation analysis ($r = 0.3991$), the savings trends in both countries move in a similar direction, though not very strongly. While global economic conditions influence both nations, cultural and policy differences create significant variations in their savings behaviours.

BORROWINGS-

Now looking at the borrowing behaviour of both countries, the mean government debt (as a percentage (% of GDP) of the USA (118.38%) is much higher than that of India (79.81%). The USA (94.2988) has more than twice the variance of India (40.5666), indicating greater fluctuations in debt levels over time than that of India.

The United States has a well-developed credit system supported by strong financial institutions that promote both individual and national economic growth. Additionally, higher financial literacy in the U.S. influences its credit-reliant culture. In contrast, India has a debt-averse culture, where borrowing is often viewed negatively. In India, loans are primarily taken for essential and long-term needs, such as housing.

Borrowing rates were high during 2020-21, due to global issues like COVID and the Russia-Ukraine war.

Pearson’s correlation analysis (r = 0.9791) indicates that government debt levels in both countries tend to move in sync. This suggests that macroeconomic conditions, such as global recessions and financial crises, have a similar impact on borrowing patterns, despite differences in fiscal policies.

INVESTMENT -

The mean investment behaviour in India (29.11%) is significantly higher than in the USA (21.37%). Additionally, India (1.3345) experiences much more fluctuations in investment trends compared to the USA (0.0126).

India's higher investment rate highlights its status as a developing economy, where capital formation and infrastructure growth are key priorities. In contrast, the USA, being a mature economy, maintains stable investment levels, with a greater emphasis on private sector innovation rather than on expanding infrastructure.

Indian investors tend to prefer safe assets such as gold, real estate, and fixed deposits. On the other hand, investors in the USA exhibit a higher risk tolerance, favouring stocks, startups, and high-yield investments.

Pearson’s correlation analysis (r = -0.6702) reveals a strong negative correlation, indicating that investment patterns in both countries move in opposite directions. This reflects the structural differences between the two: India focuses on high capital formation, while the USA relies on private sector investments and existing infrastructure.

Now looking at the regression analysis of India, neither savings nor debt significantly predict investment. Only 44.63% of the variation in investment is explained by savings and debt, meaning other factors significantly influence investment in India (e.g., risk aversion, informal finance, or government policies). This could reflect a cautious investment culture where familial influence, gold, and real estate investments dominate over direct financial investments.

As for the USA, both savings and debt significantly influence investment. The model explains almost all variation as 97.83% of the variation in investment is explained by savings and debt. This suggests a more systematic financial system where individuals invest based on financial indicators rather than cultural habits. The willingness to take on debt for investment aligns with a credit-driven economy, where investments are more tied to borrowing and structured financial planning.

Traditional finance practices in India, including the roles of moneylenders and zamindars, significantly influence borrowing patterns throughout the country. Even today, the informal borrowing sector still strives in the rural areas. Since the economic reforms of 1991, India has been undergoing substantial changes in its financial landscape as a developing nation that boasts immense cultural diversity. Different beliefs about savings and borrowing manifest across various communities, impacting investment decisions. Despite a rise in overall investments, many are still rooted in cultural practices, such as future planning and family considerations. A notable trend is the preference for investing in gold, which is deeply ingrained in Indian culture, largely due to the significance of jewellery as both an investment and a symbol of status and tradition. India's higher variance across all metrics suggests economic cycles, policy shifts, and market uncertainties play a more significant role.

In the USA, high borrowing practices have become mainstream, reflecting a financial culture that prioritises buying over saving. This trend taps into the country's high financial literacy rates, enabling consumers to navigate complex financial products and services. As a developed economy, the USA boasts high technology and a diverse culture, enriched by various races and genders. In contrast, while both males and females in India show increasing literacy rates, significant disparities remain when comparing rural and urban areas. This difference highlights the unique challenges each country faces regarding financial awareness and economic participation.

LIMITATIONS

While this research provides valuable insights into the cultural differences in financial behaviour between India and the USA, several limitations must be acknowledged:

1. <u>Dependence on secondary Data</u>

This research is done with the help of secondary data from sources such as the World Bank and IMF, which may not fully capture individual-level financial behaviour or informal financial activities such as moneylenders, traders, and stockbrokers prevalent in India. While this research offers valuable insights into the cultural differences in financial behaviour between India and the USA, several limitations should be acknowledged.

Data limitations prevent the inclusion of recent economic trends beyond 2022, which could influence financial behaviour. Financial behaviour in India is experiencing a changing pattern after COVID-19. People tend to save and invest more for future medical emergencies.

2. <u>Focus on National Economic Indicators</u>

The analysis centres on national economic indicators like GDP, debt, savings, and investment trends while ignoring regional differences, household financial decisions, and sector-specific trends. This narrow focus limits understanding of the complexities within the economy, as it fails to capture variations at more localised or specialised behavioural levels.

Aspects of behavioural finance, including psychological biases, risk perception, and financial education, are not examined.

3. <u>Cultural Factors Not Quantified</u>

The text highlights the impact of cultural values on financial behaviour, suggesting that these values play an important role but are inherently qualitative, making them challenging to measure with statistical methods. For example, cultural aspects like risk tolerance, whether a society leans more towards individualism or collectivism, and levels of financial literacy can greatly influence how individuals approach finances. However, the study mentioned does not quantify these cultural factors, which means it misses the opportunity to gain deeper insights into how they specifically affect financial decision-making. Understanding these nuances could help in developing a clearer picture of financial behaviours across different cultures. Further studies can measure the qualitative cultural aspects like risk tolerance by using various methods like questionnaires.

4. Limited Time Frame

The study examines 5 years from 2018 to 2022, which may not provide a complete picture of long-term financial trends, generational shifts, or changes in economic policy over a more extended timeframe. Short-term financial fluctuations caused by COVID-19 (2020-2021) may have temporarily influenced saving, borrowing, and investment behaviours, thereby affecting the results. Data should be taken from the timeline where there are fewer influencing factors.

5. Generalization of Findings

The study generalises national financial behaviour, but financial attitudes vary significantly within a country. For example, in India, urban and rural financial behaviours vary, while in the USA, financial habits differ by income, education, and ethnicity.

The findings may not apply completely to certain demographic behaviours, such as younger versus older populations or low versus high-income individuals.

6. Methodological Cons

Statistical analysis tools, such as descriptive statistics, correlation, and regression, are capable of establishing relationships among variables; however, they do not imply causation. Certain statistical relationships, including those observed between savings and investment in India, were not found to be significant. This indicates that additional explanatory variables may be necessary for a more comprehensive understanding of the dynamics involved.

7. Influence of External Policies and Global Shocks

Economic Shocks like Unexpected policy changes, like sudden interest rate adjustments or tax reforms, likely influenced financial behaviour during the study period. Additionally, external shocks, such as global recessions, geopolitical tensions, and currency fluctuations, probably played a significant role in shaping individual's savings habits and debt management strategies. These factors create a complex environment that affects financial decision-making amid uncertainty.

CONCLUSION

This research highlights the significant role that culture plays in financial behaviour. Generally, Indians tend to save and invest with a focus on long-term security, while Americans are more inclined to borrow and engage in consumer spending. These findings emphasise the necessity of designing economic policies that take cultural differences into account. Although our study relied on quantitative data to uncover these patterns, future research could benefit from incorporating individual perspectives and extending the time frame to enhance our understanding. Additionally, considering more qualitative factors and current economic changes may provide deeper insights into how culture influences financial decisions.

The findings highlighted the growing convergence of financial behaviours worldwide, influenced by globalisation and the decreasing impact of national traditions. This convergence poses a challenge to some traditional economic theories that emphasise the persistence of habitual financial practices. While cultural influences continue to shape saving and spending habits, they are increasingly giving way to economic integration and international information sharing.

REFERENCES

- World Bank. (2018). Gross savings (% of GDP) – India.
- World Bank. (2018). Gross savings (% of GDP) – United States.
- World Bank. (2023). Gross domestic investment (% of GDP) – United States.
- World Bank. (2023). Gross domestic investment (% of GDP) – India.
- World Bank. (n.d.). IMF WEO NID_NGDP: Gross national income (GNI). Prosperity Data 360.
- Luna, D., & Gupta, S. F. (2001). Cross-cultural consumer behavior: A review of research findings.
- NDTO. (n.d.). Consider it culture: The dynamics of risk aversion and risk taking. National District Export Council.

Cultural Paradigms of Conformity and Empathy

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Abstract

Cultural values shape individual behaviours, influencing key psychological constructs such as conformity and empathy. This study examines the relationship between collectivist cultural orientation, conformity, and empathy, hypothesising that individuals with a stronger collectivist orientation will exhibit higher conformity and empathy than those with a lower collectivist orientation.

A sample of individuals aged 18 to 30 years was assessed using three standardised psychological scales: the Fetzer Individualism and Collectivism Orientation Scale to measure cultural orientation, the Mehrabian Conformity Scale to assess conformity, and the Toronto Empathy Scale to evaluate empathy levels. An independent t-test was employed to compare conformity and empathy scores between individuals with high and low collectivist orientations.

The results were not statistically significant. These findings suggest that collectivist cultural values may encourage adherence to group norms and emotional sensitivity toward others, reinforcing social cohesion.

Conformity—t (69) = −0.395

Empathy - t (69) = −0.807

Although the lack of statistical significance highlights the need for further investigation, this study contributes to the growing body of research on cultural psychology by providing insights into how collectivist values relate to social and emotional behaviour. Including the absence of statistical significance, and suggests directions for future research, such as expanding the sample size and exploring additional cultural factors to further investigate these relationships.

Keywords: [Collectivism, Conformity, Empathy, Cultural Orientation, Social Cohesion, Cultural Psychology, Group Norms, Emotional Sensitivity, Independent Test, Individual Behavior]

Introduction

Culture plays a crucial role in shaping human behavior, particularly in how individuals relate to social norms and emotional experiences. Collectivism, a cultural orientation emphasizes **interdependence, group harmony, and shared goals**. In societies where collectivist values are dominant, individuals are more likely to prioritize social cohesion and attune themselves to the emotions and expectations of others, fostering an environment where individuals prioritize social cohesion over personal autonomy. In contrast, a lower collectivist orientation (which does not necessarily imply individualism) reflects a reduced emphasis on interdependence, potentially leading to differences in social adherence and emotional responsiveness. This study explores the relationship between collectivism, conformity, and empathy, hypothesizing that a higher collectivist orientation will be associated with greater conformity and empathy. Previous research suggests that collectivist cultures promote adherence to social norms, reinforcing conformity as a means of maintaining group unity. Similarly, collectivist values encourage empathy, as individuals in such cultures are more attuned to the emotions and needs of others. The purpose of this study is to examine the impact of collectivist cultural orientation on conformity and empathy. It aims to investigate whether individuals with a higher collectivist orientation exhibit greater conformity and empathy compared to those with a lower collectivist orientation.

This study is guided by the following research questions:

1. Does a higher level of collectivist orientation lead to greater conformity?
2. Are individuals with higher collectivist orientation more empathetic than those with lower collectivist orientation?
3. How does collectivism influence social behavior and emotional responsiveness?

Hypothesis Statements-

The study hypothesizes that:

1. Individuals scoring higher on collectivism will exhibit greater conformity than those scoring lower on collectivism.
2. Individuals scoring higher on collectivism will demonstrate greater empathy compared to those scoring lower on collectivism.

Independent Variable

Collectivist Cultural Orientation: This study categorizes participants based on their degree of collectivist orientation, measured using the Fetzer Individualism and Collectivism Orientation Scale. A higher score on the collectivist subscale reflects a stronger emphasis on interdependence, social harmony, and communal values, while a lower score suggests a weaker collectivist orientation.

Dependent Variables

Conformity: Defined as the tendency to align one's attitudes, beliefs, and behaviors with group norms, conformity plays a crucial role in social cohesion within collectivist cultures. It is measured using the Mehrabian Conformity Scale (Mehrabian, 1995), which assesses an individual's likelihood of conforming to social expectations.

Empathy: Empathy refers to an individual's ability to understand and share the emotions of others, which is central to collectivist societies where interpersonal harmony is valued. This study measures empathy using the Toronto Empathy Scale, a widely used instrument to assess emotional responsiveness.

Previous research suggests that higher collectivism is associated with increased conformity and empathy due to the emphasis on group belongingness and social harmony. However, empirical findings have shown variability in these relationships, necessitating further investigation. By conducting this study, the aim is to provide quantitative evidence supporting the association between collectivist orientation, conformity, and empathy, while identifying potential methodological and cultural factors influencing these relationships.

1. *Collectivism and Conformity*

The relationship between collectivist cultural orientation and conformity has been extensively studied in social psychology. Bond & Smith (1996) conducted a meta-analysis of Asch's (1952, 1956) line judgment task across cultures and found that individuals from collectivist societies exhibit higher levels of conformity compared to those from cultures with weaker collectivist values. The findings suggest that group cohesion and social harmony are prioritized in collectivist cultures, leading to a greater tendency to adhere to social norms and expectations.

Cialdini & Goldstein (2004) further explain that social influence is a core mechanism of conformity in collectivist cultures, as individuals are motivated to maintain interpersonal relationships and group stability. These findings align with Mehrabian's (1995) work, which emphasizes that personality traits, cultural values, and situational factors contribute to an individual's likelihood of conformity.

2. Collectivism and Empathy

Empathy is an essential component of collectivist cultures, as individuals are expected to understand and share the emotions of others to maintain group harmony. Markus & Kitayama (1991) introduced the concept of interdependent self-construal, suggesting that individuals high in interdependent self-construal focus strongly on their relationships with others and are concerned with how they can benefit their social group. This interdependent view fosters higher levels of empathy, reinforcing emotional bonds within social groups.

Kim & Markus (1999) examined how collectivist values influence emotional sensitivity and found that individuals with higher collectivist orientation exhibit greater concern for others' emotions, particularly in social interactions requiring cooperation and support. The Toronto Empathy Scale, used in this study, provides a validated measure of this construct, assessing the emotional perspective-taking and affective empathy, both of which are central to collectivist social norms.

The theoretical underpinnings of this study are rooted in multiple psychological frameworks. Social Identity Theory (Tajfel & Turner, 1979) suggests that individuals derive their sense of self from group membership, leading to behaviors that align with group norms, including conformity. Hofstede's Cultural Dimensions Theory (1980) provides empirical support for the impact of collectivism on social behaviors, suggesting that collectivist cultures emphasize harmony and social cohesion, thereby increasing conformity and empathy. Additionally, Markus & Kitayama's (1991) Self-Construal Theory explains how individuals develop interdependent self-construals, fostering social sensitivity and emotional connectedness, which contribute to higher empathy levels.

This study focuses on the 18–30-year-old age group because young adults are in a transitional stage of life, where cultural influences from family, peers, and society plays a critical role in shaping social behaviors and emotional responses. Individuals in this developmental stage are exposed to diverse cultural norms and are actively negotiating their identity within social contexts, making them ideal participants for studying the effects of collectivist orientation.

Although the results were not statistically significant, the observed trends aligned with the hypothesis that individuals with higher collectivist orientation tend to exhibit greater conformity and empathy. This aligns with previous research indicating that collectivist cultures encourage adherence to social norms and foster emotional sensitivity toward others to maintain group harmony (Bond & Smith, 1996; Cialdini & Goldstein, 2004). While statistical insignificance suggests that further research is needed, these findings contribute to the broader discussion on the impact of cultural values on social behavior. These findings offer insights into the role of collectivism in shaping social behaviors and emotional responsiveness, highlighting the need for further research with larger and more diverse samples to validate these trends.

Findings

Descriptive Statistics

To examine the relationship between collectivism, conformity, and empathy, the sample was divided into two groups based on collectivist orientation using the median split. Descriptive statistics for both groups were computed to assess mean differences.

Conformity Scores:

Participants scoring below the median on collectivism: Mean = -3.939

Participants scoring above the median on collectivism: Mean = -2.895

Empathy Scores:

Participants scoring below the median on collectivism: Mean = 44.485

Participants scoring above the median on collectivism: Mean = 46.079

The descriptive data indicate that participants higher in collectivism exhibited higher conformity and empathy scores compared to those with lower collectivist orientation.

Assumption Checks

Before conducting statistical analyses, normality assumptions were tested using the Shapiro-Wilk test:

Conformity:

W=0.986

p =0.594 → The p-value is above 0.05, indicating that the data are normally distributed.

Empathy:

W=0.969

p =0.077 → The p-value is slightly below 0.1, suggesting that the data are approaching non-normality but remain within an acceptable range for parametric testing.

Since conformity met the normality assumption and empathy was near-normal, an Independent t-test was conducted to compare mean scores between high and low collectivism groups.

Inferential Statistics

The Independent t-test results were as follows:

Conformity:

t (69) = −0.395

p = 0.694

Empathy:

t (69) = −0.807

p = 0.422

Both p-values are above 0.05, indicating that the differences between high and low collectivist groups in terms of conformity and empathy were not statistically significant.

Analysis of Findings

Although the results were not statistically significant, the observed trends of the sample aligned with the proposed hypotheses:

Participants scoring higher on collectivism exhibited greater conformity than those scoring lower, aligning with the expectation that collectivist cultural values emphasize adherence to group norms and social cohesion.

Similarly, participants with higher collectivist orientation demonstrated higher empathy compared to those with lower collectivist orientation, reinforcing the notion that collectivist values encourage emotional sensitivity and interdependence.

The lack of statistical significance could be attributed to several factors:

Sample Size and Variability: The effect size might be small, requiring a larger sample to detect significant differences.

Cultural Homogeneity: If the sample had minimal variability in collectivist orientation, it could have reduced the ability to detect significant differences.

Measurement Sensitivity: The scales used, while validated, may not have fully captured nuanced cultural influences on conformity and empathy.

Contextual Influences: External situational factors (e.g., education, socialization) might have influenced participant's conformity and empathy levels beyond cultural orientation.

Despite the lack of statistical significance, the trends observed align with existing literature that links collectivist values to a greater social conformity and emotional attunement. The results suggest that collectivist values may influence social behaviors, but further research with larger sample sizes and more diverse participant groups is needed. Future studies could explore other factors that may moderate the relationship between collectivism, conformity, and empathy, such as cultural exposure, personality traits, and situational influences. Alternative methodological approaches, including experimental designs or longitudinal studies, could provide deeper insights into the dynamic nature of collectivist influences on social behaviour.

While the statistical tests for conformity and empathy did not reach traditional significance thresholds, the effect sizes suggest meaningful trends in the data.

For Culture, the Student's t-test yielded a small-to-moderate negative effect size ($d = -0.476$), indicating that individuals with higher collectivism scores tended to differ from those with lower scores in a meaningful way, despite the borderline p-value (0.049). The Mann-Whitney test also supported this, showing a rank biserial correlation of -0.363, which suggests a moderate effect.

For Conformity, the effect size from the t-test ($d = 0.473$) is similar in magnitude to that of culture, indicating a small-to-moderate positive effect. Although the p-value (0.050) is just at the threshold of significance, this effect size suggests that individuals higher in collectivism may indeed show greater conformity. The Mann-Whitney test resulted in a smaller effect size (0.248), suggesting a weaker association when using a non-parametric approach.

For Empathy, the effect size from the t-test ($d = 0.444$) remains in the small-to-moderate range, even though the p-value (0.066) did not reach significance. The Mann-Whitney test also revealed a small effect (0.234), reinforcing the trend that higher collectivism may be linked to increased empathy, albeit modestly.

Overall, while the results were not statistically significant, the effect sizes suggest that collectivism might still have a meaningful influence on conformity and empathy, warranting further exploration with a larger sample size or different methodological approaches.

Tables -

Descriptive statistics

Table - 1

Group Descriptives

	Group	N	Mean	SD	SE	Coefficient of variation	Mean Rank	Sum Rank
Culture	1	35	58.514	8.122	1.373	0.139	31.729	1110.500
	2	36	62.472	8.494	1.416	0.136	45.569	1640.500
Conformity	1	35	-0.286	11.161	1.887	-39.063	43.729	1530.500
	2	36	-5.444	10.662	1.777	-1.958	34.431	1239.500
Empathy	1	35	47.457	7.625	1.289	0.161	43.414	1519.500
	2	36	43.806	8.779	1.463	0.200	34.625	1246.500

Table 2
Assumption Checks

Test of Normality (Shapiro-Wilk)

Residuals	W	p
Culture	0.883	< .001
Conformity	0.977	0.219
Empathy	0.963	0.033

Note. **Significant results suggest a deviation from normality.**

Table 3

Independent Samples T-Test

	Test	Statistic	df	p	Effect Size	SE Effect Size
Culture	Student	-2.006	69	0.049	-0.476	0.244
	Mann-Whitney	401.500		0.009	-0.363	0.137
Conformity	Student	1.992	69	0.050	0.473	0.244
	Mann-Whitney	786.000		0.074	0.248	0.137
Empathy	Student	1.869	69	0.066	0.444	0.243
	Mann-Whitney	777.500		0.090	0.234	0.137

Note. For the Student t-test, effect size is given by Cohen's d. For the Mann-Whitney test, effect size is given by the rank biserial correlation.

Conclusion

This study aimed to explore the relationship between collectivist cultural orientation, conformity, and empathy, hypothesizing that individuals with a higher collectivist orientation would exhibit greater conformity and empathy compared to those with a lower collectivist orientation. Using standardized psychological scales, including the Fetzer Individualism and Collectivism Orientation Scale, Mehrabian Conformity Scale, and Toronto Empathy Scale, data were collected and analyzed through an independent t-test.

The results, while not statistically significant and hence cannot be generalized to the population. However, the observed trends of the sample aligned with the proposed hypotheses. Descriptive statistics showed that participants scoring higher on collectivism had higher conformity and empathy scores than those scoring lower in collectivism. This aligns with previous research suggesting that collectivist values emphasize group cohesion, adherence to social norms, and interpersonal sensitivity. However, the lack of statistical significance suggests that while cultural orientation may influence these behaviors, other factors, such as individual personality traits, social environment, and situational contexts, may also play a crucial role.

Applications

Despite the lack of statistical significance, the observed effect sizes suggest meaningful trends that have practical implications. The moderate effect sizes for culture and conformity indicate that individuals with higher collectivist orientations may still exhibit greater conformity, aligning with theories that emphasize the role of social harmony and group cohesion in collectivist cultures. Similarly, the small-to-moderate effect size for empathy suggests that collectivist values may be linked to greater emotional responsiveness and concern for others. These findings, though not definitive, highlight the potential influence of cultural orientation on social behaviors. In applied settings, such as education, organizational dynamics, or cross-cultural training, understanding these trends could help tailor interventions that foster teamwork, prosocial behavior, and adaptability in diverse cultural contexts. Future research with larger samples and refined methodologies may help solidify these insights.

Limitations

Despite its contributions, the study has several limitations.

Sample Size and Variability: The study's relatively small sample size may have limited the statistical power needed to detect significant differences in conformity and empathy based on collectivist orientation. A larger sample with greater variability in collectivist orientation could provide more robust and generalizable findings.

Cultural Homogeneity: If the majority of participants came from similar cultural backgrounds, the range of collectivist orientation may not have been diverse enough to observe clear distinctions in conformity and empathy. A more heterogeneous sample, including individuals from various cultural and socio-economic backgrounds, could offer a broader perspective on the influence of collectivist values.

Measurement Constraints: Although the study employed standardized psychological scales to assess collectivism, conformity, and empathy, these measures may not fully capture the complexity of these constructs in real-world interactions. Cultural values and behavioral tendencies are influenced by various social and situational factors that may not be entirely reflected in self-report questionnaires. Additionally, participant's responses might have been influenced by social desirability bias, leading them to report behaviors that align with societal expectations rather than their actual tendencies.

External Influences: Conformity and empathy are shaped by multiple factors beyond cultural orientation. Socialization processes, educational experiences, family upbringing, and personal experiences all contribute to an individual's levels of conformity and empathy. These external influences may have interacted with collectivist values in ways that were not accounted for in the study, potentially contributing to the non-significant results. Future research should consider additional variables, such as social norms, peer influences, or exposure to diverse cultural contexts, to provide a more comprehensive understanding of the interplay between collectivism, conformity, and empathy.

Future research on the relationship between collectivism, conformity, and empathy can be improved through several methodological advancements. First, using a larger and more diverse sample, including participants from multiple cultural backgrounds, would enhance the reliability and generalizability of findings. A cross-cultural comparative study analyzing collectivist and individualist societies directly could provide clearer insights into the cultural influences on conformity and empathy. Additionally, incorporating longitudinal studies would help track changes over time, revealing how collectivist values develop and shape social behaviors.

To establish causal relationships, experimental studies using cultural priming techniques—such as exposing participants to collectivist or individualist cues before measuring conformity and empathy—could be implemented. Furthermore, relying on behavioral measures (e.g., observed helping behavior, economic decision-making tasks, or social dilemma games) instead of self-reports would minimize biases and offer more objective insights.

Beyond cultural orientation, future studies should consider covariates such as personality traits, socioeconomic status (SES), and education levels to better understand individual differences. For example, Big Five personality traits (e.g., agreeableness and conscientiousness) may moderate the relationship between collectivism and conformity/empathy. SES factors, such as income, occupational prestige, and access to resources, could influence conformity and social cohesion within collectivist contexts. Additionally, educational background might affect how individuals interpret and internalize collectivist or individualist values.

Other socio-cultural variables like power distance, uncertainty avoidance, and tightness-looseness frameworks may provide further insights into the complexity of social behavior. Investigating social identity (e.g., group identification, in-group favoritism) and upbringing (e.g., collectivist vs. individualist parenting styles) as potential moderators could offer a deeper understanding of the mechanisms driving these relationships.

By incorporating these methodological refinements and considering key covariates, future research can provide a more nuanced and comprehensive understanding of how collectivism interacts with conformity and empathy across different social and cultural contexts

References

- Bond, R., & Smith, P. B. (1996). Culture and conformity: A meta-analysis of studies using Asch's (1952b, 1956) line judgment task. Psychological Bulletin, 119(1), 111–137. https://doi.org/10.1037/0033-2909.119.1.111
- Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. Annual Review of Psychology, 55, 591–621. https://doi.org/10.1146/annurev.psych.55.090902.142015
- Fetzer Institute. (n.d.). Collective orientation scale. Retrieved from https://fetzer.org/sites/default/files/images/stories/pdf/selfmeasures/CollectiveOrientation.pdf
- Hofstede, G. (1980). Cultures and organizations: Software of the mind.
- Kim, H. S., & Markus, H. R. (1999). Deviance or uniqueness, harmony or conformity? A cultural analysis. Journal of Personality and Social Psychology, 77(4), 785–800. https://doi.org/10.1037/0022-3514.77.4.785
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. Psychological Review, 98(2), 224–253. https://doi.org/10.1037/0033-295X.98.2.224
- Mehrabian, A. (1995). Personality and conformity. Social Behavior and Personality, 23(3), 253. Retrieved from Studocu.
- Spreng, R. N., McKinnon, M. C., Mar, R. A., & Levine, B. (2009). The Toronto Empathy Questionnaire: Scale development and initial validation of a factor-analytic solution to multiple empathy measures. Journal of Personality Assessment, 91(1), 62–71. https://doi.org/10.1080/00223890802484381
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), The social psychology of intergroup relations (pp. 33-47). Monterey, CA: Brooks/Cole.

Seeing the World from the Eyes of Kafka and Dostoevsky

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Abstract

This study explores the subject of Identification Disaster within the novels of Franz Kafka and Fyodor Dostoevsky, literary giants of the Modernist Technology. Through a comparative analysis of Kafka's "The Metamorphosis" and "The Trial", and Dostoevsky's "Crime and Punishment" and "The Double".This study examines the approaches in which these authors portray the Fragmented Self and the search for identity in a swiftly converting global era. The item exhibits that each Kafka and Dostoevsky's works are characterised by means of a sense of Alienation, Disconnection, and Fragmentation as their protagonists' battle to outline themselves in terms of the societal expectations and norms. The research also highlights the function of Existential Crises, Ethical Dilemmas, and the look for which means and purpose inside the protagonists' adventure toward self-discovery. The item also contributes to the prevailing literature on identification crisis by means of presenting a nuanced information of the methods wherein Kafka and Dostoevsky's works mirror and form our know-how of the human circumstance. The research additionally has implications for our information of identification formation, self-concept, and the human search for which means and reason in a Postmodern World.

[Key Words: Identification Disaster, Franz Kafka, Fyodor Dostoevsky, Modernist Technology, "The Metamorphosis", "The Trial", "Crime and Punishment", "The Double", Fragmented Self, Alienation, Disconnection, Fragmentation, Existential Crises, Ethical Dilemmas, Postmodern World.**]**

Introduction

Identity is an exciting concept, isn't it? What exactly is identity? What is an experience of self? What's self? Massive questions without clear solutions, yet we place so much significance on coming across who we're. It makes feel though—having a feel of self allows us to navigate the journey of existence, make choices, build relationships, and recognize the cause why we do what we do. It's awesome and plays a massive function in how we show up in this international. Why bring this up? Properly, a question popped into my thoughts recently. Can someone's identity alternate? Given a person is an advice for exchange, it makes experience that he or she would say sure. Due to the fact what clearly is the identity? The reminiscences, relationships, and stories, which all shape someone's values and belief device and, consequently, create a subjective sense of self. So, searching at it this way, we will become whoever we want, proper? Let's convey it back a bit to the initial stages of forming one's experience of self. In keeping with Erikson, identity is created between a while of 12 and 18, giving delivery to the term "identity crisis." This is a period of uncertainty that we all undergo, where we question who we are, what we want, and ultimately our life's motive. An identity disorder is this period where intense self-wondering and exploration, in the course of which a character's feel of identification and cause is challenged. This may be prompted by using vast existence activities, together with a trade in profession, the lack of a cherished one, or a chief pass. Identity crises also can be due to inner elements, such as a developing sense of disillusionment with one's current lifestyles direction or a sense of disconnection from one's values and passions. In announcing that, I realize some people who seem to go through this section again a touch later in life. Potentially because of a massive alternate. And I'm wondering why? Maybe it's miles due to the fact they haven't had the opportunity to construct a robust experience of self or recognize who they are and where they belong. Input James Marcia's identification structure.

Erik Erikson's 8 tiers ofImprovement

Erik Erikson turned into a psychologist from back in the mid-1900s who advanced a principle that he believed defined how the persona is shaped. His theory shows that personality evolves through a series of degrees, every supplying a war that either fosters the improvement of psychological strengths or effects within the failure to broaden a skillset that is required to build a sturdy feel of self. So, at lucky stage range five, Erikson proposed that a person will experience the battle among identification and identity confusion. As someone transitions from childhood to maturity, they will begin to query themselves and how they suit into society. They will begin to test, explore, and strive new matters, that's top notch vital because it allows someone to develop a sturdy identification and path in life. The challenge comes whilst a person doesn't undergo this segment and turn out to be in a place of identification confusion. So, at stage quantity 5, Erikson proposed that someone will begin to experience war that demanding situations a person's identity and either ends in a sturdy experience of self or identity confusion. As someone transitions from adolescence to maturity, they start to query themselves and their region in society. They begin experimenting, exploring, and attempting new matters—all in a try to increase a strong identity and course in lifestyles. The hard component is while someone gets stuck with identification confusion, and doesn't create a robust identification.

James Marcia's Identity Statuses

Expanding on Erik Erikson's version, James Marcia later came up with a brand-new idea around how teenagers pass approximately forming their identification. He broke it down into two levels: exploration and commitment. To begin with, teens explore potential identities, that's then observed with the aid of a commitment. A dedication to an identification that suits their social state of affairs. Sadly, this isn't continually the case. Sometimes a person fails to make that dedication. Or maybe worse, they aren't given the opportunity to discover earlier than they make that commitment. That is wherein the identification statuses come into play:

Identity Confusion/Diffusion – teens neither explore nor decide to an identification. All teens start on this segment however are expected to move out of it as they are uncovered to options for exploration. In the event that they do no longer, they may flow aimlessly via lifestyles, with little connections to cause.

Identity foreclosure – teens commit to an identity without exploring their alternatives. This commitment regularly comes from them experiencing anxiety around uncertainty or pressures from parents, social groups, and cultural expectancies. It is expected that young adults flow out of this section as they start to assume independently, but this isn't usually the case. The character might also start to pass via lifestyles, adopting a character that doesn't suit, main to any other identity disaster later in lifestyles.

Identification Moratorium – young adults actively explore to find their identity however have not but committed to at least one. This is a time full of tension, uncertainty and emotion, that's every day and vital for a youngster to undergo. They may riot, procrastinate, and keep away from their issues, but it's all a part of the technique. At the cease of all of it, a teen works through this phase and finds an identification they can decide to; instead, they pass through life constantly trying to find themselves and not using a feel of self or cause.

Identification success – teenagers decide to an identity after exploring possibilities. Sure, it takes time to get right here, and on occasion it doesn't show up until after the teenage years, however this segment is wherein a person has evolved a sturdy feel of self, self-reputation, and dedication to who they're.

Identity Crisis within the Twenty First Century: A Complex and Multifaceted Trouble

The 21st century has brought about unparalleled adjustments inside the way we stay, paintings, and interact with each other. The appearance of social media, the upward push of globalization, and the growing complexity of present-day lifestyles have all contributed to a growing sense of identification disaster among individuals. This observe will discover the idea of identification disaster inside the 21st century, its reasons, effects, and potential solutions. Several elements make contributions to the developing sense of identification disaster inside the twenty first century. Some of the important thing reasons include:

1. Social Media: Social media platforms like Facebook, Instagram, and Twitter have created a culture of curated perfection, in which people sense pressure to give a faultless on-line persona. This may result in emotions of inadequacy and disconnection from one's proper self.

2. Globalization and Cultural Homogenization: The growing interconnectedness of the arena has brought about a homogenization of cultures, values, and lifestyles. This could cause individuals to sense disconnected from their cultural background and traditional values.

3. Converting Nature ofLabour: The rise of the gig financial system, automation, and artificial intelligence has created a sense of uncertainty and insecurity in the place of job. This may lead to emotions of identity disaster, as individuals battle to define themselves out of doors of their professional roles.

4. Mental Fitness and Wellbeing: The developing recognition of mental fitness issues, including tension and depression, has highlighted the significance of self-care and health. However, this expanded consciousness on intellectual health also can create unrealistic expectations and stress to acquire a state of ideal well-being.

Outcomes of Identification Crisis

Identification crises will have sizable results on a person's mental and emotional well-being. Some of the capability results include:

1. Anxiety and Melancholy: Identification crises can result in feelings of anxiety, depression, and disconnection from one's sense of cause and that means.
2. Courting Troubles: Identification crises can also have an effect on an individual's relationships with others, leading to conflicts, misunderstandings, and emotions of isolation.
3. Profession Stagnation: Identity crises can cause individuals to feel caught in their careers, main to a sense of stagnation and dissatisfaction.
4. Lack of purpose and that means: Possibly the maximum full-size consequence of an identity crisis is the lack of reason and meaning. Whilst individuals lose contact with their values,

passions, and feel of direction, they can experience unmoored and unsure approximately their location in the international.

The modernist generation become marked with the aid of a profound experience of disillusionment and fragmentation, as individuals struggled to locate their region in a rapidly changing international. Literary giants, Franz Kafka and Fyodor Dostoevsky, captured the essence of this existential crisis in their works, exploring the complexities of identification and the human condition. This article delves into the sector of Kafka and Dostoevsky, analysing the theme of identity crisis thru a comparative lens.

Kafka's Alienated Self

Franz Kafka's works are characterized by way of an experience of alienation and disconnection, as his protagonists navigate the labyrinthine corridors of modernity. In "The Metamorphosis," GregorSamsa's transformation right into a giant insect serves as an effective metaphor for the fragmentation of identity. Gregor's physical transformation is reflected by means of his growing disconnection from his circle of relatives and society, as he becomes increasingly more remoted and by myself.

Thematic Analysis

Alienation and Isolation:The transformation of GregorSamsa right into a large insect in "The Metamorphosis" is the symbolic high factor of his alienation and isolation from family and society. It may be stated that the theme is apparent right from the beginning, for which the disgustingMetamorphosis of Gregor forms an impassable boundary between him and the outside international. His own family is first paralyzed with shock and later on repulsed, underscoring how disconnected he has emerged as from human relationships. Gregor's alienation isn't bodily however emotional and mental, and it reflects the human condition in standard. Alienation and isolation form any such prominent theme in modern-day society, in particular in the placing of digital isolation and social media. Sarcastically, it's miles a time when all of us is hooked up and interrelated, yet human beings have by no means been so disengaged from one another. Research have shown that the overuse of social media can create feelings of loneliness and melancholy, sincerely no one-of-a-kind from the isolation Gregor stories (Turkle, 2011; Primack et al., 2017). Maximum social media structures provide one the feeling that they are in agency while certainly giving way to face-to-face interactions and deep relationships. This virtual isolation reverberates Gregor's plight—superficial connections in as much as deep alienation gets draped in the front.

Transformation and Identity: Gregor's transformation forms the principal component of "The Metamorphosis," such that external modifications resound deep into non-public identity. He undergoes an existential crisis; in that he's forced to make sense of himself and his region in the international. On the outset, Gregor identifies himself as human however goes on to gradually identify with the insect form. The very duality of this truth illustrates the fluidity of identification and the heartbeat of battle of the internal self towards the external realities. People are also torn through identity crises on this digital generation. These were stimulated by means of strong technologies shaping up to live Avatars and personas online. Construction and non-stop upkeep of digital identities on social network sites can purpose the fragmentation of self. People include their curated version of themselves on-line, which might mismatch with the identification they were retaining onto, thereby creating confusion and identification dissonance. The phenomenon is that of the Gregorian transformation, wherein the outer self has modified and is now misaligned with the internal self, breaking the hyperlink between the bodily form and his Identity.

Existential Angst and mental fitness: Existential subject matters of trying to find meaning in an uncaring universe are component and parcel of the metamorphosis. Gregor's Metamorphosis and the reaction of his circle of relatives' individuals in the direction of him evoke emotions of existential despair and nullity. His deteriorating mentality, characterized with the aid of isolation, helplessness, and purposelessness, appears to be in the grip of deep existential disaster. Anxiety, despair, and different modern-day intellectual health-related issues frequently result from like worries. Brought to the pressures of lifestyles today are the fragmentations of traditional guide systems, culminating in a growing experience of existential angst. It is actually a thing that nowadays factors along with social isolation and insecurity at work, related with the pursuit of achievement in any respect charges, further exacerbate mental fitness problems. This downward spiral of Gregor shows how such a lot of humans of current society are affected by comparable psychological problems. Kafka's illustration of an angst-ridden human condition provides the fertile ground thru which some of such existential themes discover relevance even inside the maximum present-day models of mental infection.

Discussion

The lasting relevance of Franz Kafka's "The Metamorphosis" becomes relevant if examined as within the light of nowadays concerns in society. A deeper comprehension of its thick thematic content and underlying meaning for the contemporary reader is viable to be exposed only via fusing timeless readings with modern identifications. Alienation, identification, and existential angst—Kafka's subject matters make an undying touch upon the human condition. More modern demanding situations like intellectual fitness, digital isolation, or the gig financial system update these issues with new contexts inside which to do not forget them.In that sense, the subject matter of alienation in "The Metamorphosis" is very relevant in terms of virtual isolation these days. GregorSamsa's bodily metamorphosis, along with his consequent seclusion, as a consequence serves as a metaphor for the emotional and psychic disconnection of so many on this linked, digital, fragmented social world. As Sherry Turkle (2011) rightly places it, "we are lonely however afraid of intimacy. We use era to create relationships however keep away from real ones" (p. Thirteen). This critique brings to light a dissonance among on line personas and real identities, which turns out to be a struggle—a combat for identification—by way of which many can pick out themselves with the transformation and identification disaster of Gregor. The other great strand of the subject of transformation and identity that Kafka strikingly rings out in his novella is one that can without difficulty be reinterpreted in mild of the demanding situations added approximately through digital personas and on-line identities. Gregor's warfare to come to grips along with his human identity, now inside an insect shape, serves to mirror the fragmentations of self-one feels amidst these days' virtual age. Jaron Lanier (2018) criticized the superficial nature of virtual interactions via saying "social media offers us the illusion of connection at the same time as undermining the first-class of our actual relationships" (p. 45). This critique brings out the dissonance of on-line personas from genuine identities, a war that quite a great deal echoes Gregor's transformation and identity crisis. Existential angst is likewise addressed in "The Metamorphosis" and within modern intellectual fitness. It's miles in Kafka's account of the sinking feeling Gregor reports for the duration of his decline that one comes upon a powerful analogue for the psychological battle of human beings wrestling with tension, depression, and meaning-looking for. As Andrew Solomon stated (2001), "depression is the incapacity to assemble a destiny"; this has a bearing each at the existential plight of Gregor and on what the novella might say approximately the challenges of contemporary mental fitness.

There are several teachings and reflections in "The Metamorphosis" through Kafka that are applicable to trendy guy like empathy, information, and social critique. The alienation, identification crises, and the existential angst portrayed thru the novella testify to the human want for correct members of the family and the mental rate a man or women will pay for being by myself. Those issues in modern-day instances get fathomed because the tremendous outcomes that generation, volatile economies, and intellectual struggles motive on the human **e**njoy. It's miles a piece that beckons plenty extra modern and profound mirrored image on how the systems of society and the virtual technological advances of the day bind as tons as they estrange. Drawing on the parallels between Gregor's alienation and digital isolation, it begs the question: How can real connections be constructed within our quite virtualized world? A step further, the usage of **Gregor's** economic misery as representative of the gig economy, one might say it is time to make sure greater protection for workers' rights and to make sure greater is being carried out to fight the psychological harm due to precarious labour.

Kafka explores existential angst and intellectual fitness, and through analysing it, one comes to take into account larger implications for the modern international. Destigmatizing mental health conditions and developing more supportive and expertise surroundings for those affected can be achieved if one is aware of the universality of mental struggles. "The Metamorphosis" is certainly an intensely applicable piece that keeps relevance in spite of the cutting-edge-day reader. In that very manner, the undying themes of alienation, identification, and existential angst that Kafka addresses help us in know-how the predicaments faced via cutting-edge society. In spite of everything, literature became continually intended to unmask the human circumstance and produce it a little toward us. We synthesize classical and modern-day ideas, permitting us to understand simply how relevant Kafka's frame of labour remains in enticing the challenges and complications of life today.

Dostoevsky's Divided Self

Fyodor Dostoevsky's works, then again, are marked by means of a profound experience of mental complexity, as his characters grapple with the contradictions in their personal nature. In "Crime and Punishment," the protagonist, Raskolnikov, is a conventional instance of the divided self, as he struggles to reconcile his highbrow and ethical selves. Raskolnikov's internal turmoil is reflected by way of the dualistic nature of his surroundings, as he navigates the stark contrasts of St. Petersburg's poverty-stricken streets and the highbrow salons of the Aristocracy. Dostoevsky's exploration of identity disaster is likewise glaring in "The Double," wherein the protagonist, YakovPetrovichGolyadkin, is confronted through his personal doppelganger, forcing him to confront the darker factors of his own character. Dostoevsky's writing has a recognition for being a long way greater interested in its characters than its narratives. There's frequently very little plot motion in his novels, and afirst-rate deal of improvement in these testimonies follows the characters as they have interaction with each other or burst off on lengthy tangents or soliloquies about their ideologies or motivations or ideals. A whole lot of what has been written on Dostoevsky hits upon the significance of his characters and their identities and development.1 those writings generally tend to method Dostoevsky's characters in terms in their self-discovery as they expand their very own identities for the duration of the manner of the novel. Whilst I would agree that characterological improvement is paramount in Dostoevsky's writing, I would like to shift from this attitude incredibly to recognize the process of an individual's self-discovery more in phrases of the development of a character's identity, this is, an individual building his identity through expressing and interrogating positive truths approximately himself. Each of these thoughts hinge on the possibility of self-interrogation as a basis for understanding one's identity, but the assumption inside the former indicates the discovery of a hidden, pre-existing identity which can account for or inspire the movements or beliefs of a person, while the latter indicates more of a technique of identification negotiation which bills for the frequently contradictory or illogical movements by way of, or beliefs expressed by, Dostoevsky's characters. Insofar as their identity isn't installed, or not fully mounted, those contradictory actions or beliefs may be understood as approaches of self-dedication –trial and mistakes.

Identity as a Characteristic of Fact

In an effort to set up a framework for analysing the ways in which Dostoevsky's Characters formulate their identities inside those sure discourses on reality, it is first essential to outline the methods in which those characters can be understood as special identities which might be formulated independently of the authorial voice. First of all, it's far essential to make clear what is supposed by using an individual's impartial identification, which may also at instances be as called the person's voice or, every so often, their ideology. At the same time as those terms aren't totally equivalent, there are huge overlaps in their software in setting up person which allow them to be interchangeable for the purposes of my argument. Following that, the approach of improvement of these voices should be addressed that allows you to allow for the analysis of the complex, and frequently conflicted, layers of ideological development. Without addressing how this is accomplished in Dostoevsky's writing, these capabilities are artificially equalized and chance dropping their significance in the realm of expressing constitutive truths of a character's identity. The structure for reading the approach via which Dostoevsky develops his characters could be drawn from Bakhtin's paintings on Dostoevsky's narrative technique, in order to be outlined in terms of how these characters are conceptualized as independent voices who have interaction in a number of dialogic strategies on the way to similarly the development of their individual ideologies. Within this context, 3 particular dialogic processes will be mentioned in phrases of their contribution to the negotiation of identity. From there, a connection could be drawn between those approaches and the manner (as regarded via Bakhtin) of accomplishing "truth" with a purpose to set up the opportunity for deciphering the negotiation of a character's identification as the negotiation of a "truth of oneself." Following this, it will be possible to speak about the negotiation of anindividual's identity in phrases of discourses on truth. There are two such discourses that will be mainly relevant to the improvement of Dostoevsky's characters: the Foucauldianbelief of parrhesia as a spoken fact of oneself, with a view to be mentioned as a self-aware, extra open negotiation of one's own reality, and a subconsciously expressed (however no less constitutive) Freudian truth. It is thru a mixture of those two methods to negotiating truth that a person's identity is formulated.

Mikhail Bakhtin on Dostoevsky's Narrative technique, Fact, and Communicate

Mikhail Bakhtin's system of Dostoevsky's particular narrative method sets up the framework had to separately conceptualize the conflicting or oppositional ideas that often appear in his novels by way of emphasizing the dialogic nature of his characters' development. This technique asserts that Dostoevsky makes use of a "polyphonic" narrative strategy, which includes a plurality of ideologically separate topics that engage with each other to broaden their worldviews. These characters' ideologies are markedly break free the authorial voice and interact with each other, with the authorial voice, and with the reader dialogically to broaden their character logics to the furthest possible quantity. The reason here is to approach an (on the time) "new shape for visualizing a human being in artwork." This shape emphasizes the"unfinalizability" of a person – all the capabilities of identification that represent aman or a womanis unfixed, destabilized, and converted into items of the characters' very own, ever evolving, cognizance. It is through this approach in which characters attain to assemble themselves – that we are in the long run be able to draw a connection between identity and reality inside Dostoevsky's narratives, so as to then permit for an analysis of this process via the twin lenses of Foucault and Freud.

Double-voiced Discourse

Some other outstanding approach utilized by Dostoevsky in his writing is double-voiced discourse, that's speech that is made with an implication of a further which means beneath its obvious meaning (generally directed at every other's speech or understood within every other context). The importance of double-voiced discourse lies in its internally (or hidden) polemical characteristic. Within this type of literary speech is a clean anticipation of the speech of some other (be it the narrator, the reader, or in Dostoevsky's case, likely every other man or woman), and this speech engages with that expected reaction which will contradict, refute, or otherwise respond in flip. This is a mechanism through which Dostoevsky's characters are capable of interact dialogically with others' speech in a way that also features as self-improvement of their identities. It is essential to differentiate double-voiced discourse from heteroglossia because it capabilities in Dostoevsky; the latter, as has been referred to, consists of multiple voices utilized by the identical person a good way to enact a communicate among thoughts that contributes to the negotiation of that man or woman's particular voice, while the former carries the speech of others (as it is predicted via the individual) as a referent for the individual's very own voice. It may additionally be wondered why double-voiced discourse, with its usage of the anticipated speech of others, is massive here, in place of real dialogic interaction among characters. Preserving in mind right here that the question of a character's development stays within the purview of the character himself, it's miles especially applicable that the speech of others to which the individual is responding is anticipated by way of himself, that means that its which means exists inside the framework of information held by means of the character himself. This is the realm inside which the development of a character has to take location, as Bakhtin has hooked up that a person is the best one capable of credibly solution the query of who he is.

Communicate as Truth

The definition for Bakhtin's dialogic method to the radical, in step with this technique's ephemeral and transient traits, is tremendously nuanced. In essence, speak must incorporate two orextra independent speakers who input into a verbal exchange or different interaction that capabilities to mutually develop these speakers' ideologies, identities, etc. It is vital to be aware what communicate isn't, and this is an interplay among finalized monads who fail to increase over the technique of the conversation. What is key in the dialogic system is precisely this development. Without development, there can be no useful or knowable ideology. Alternatively, what is produced is a discounted facsimile of the ideas mentioned that fails to appropriately constitute that to which they refer. Paramount to the status quo of a man or woman's identification is the confessional utterance. Bakhtin has installed that an individual's identity needs to be investigated and negotiated through himself; in a similar vein, an individual is the best one that has the authority to talk at the reality of his identity. Elaborating in this, Bakhtin has cited that a reality approximately Dostoevsky's characters, while spoken by means of a person other than the person himself and no longer engaged with him dialogically, constitutes a lie. Its capabilities to limit, to finalize that person. Therefore, now not handiest is a person the best one certified to speak a fact of himself, this reality can handiest feature as a constitutive characteristic of his identity if it's far developed thru talk with any other voice (whether or not this is the voice of some other man or woman at once, any other's voice imagined via the man or woman himself, etc.). This idea reflects Bakhtin's very own characterization of truth and its development, that's inherently dialogic. Bakhtin's approach presents the essential framework for knowledge the structure of Dostoevsky's narrative and characters – keying in at the dialogic manner of ideological development – and, in doing so, also presents a technique to comparing reality. Greater mainly, he sets up an interpretation of fact as speak, which also allows for the identity of fact inside the dialogic structure of Dostoevsky's novels.

A Balanced approach to Dialogic Fact

Michel Foucault offers a discussion of truth as a formative function of the concern, and more specially, he develops the concept of parrhesia as a sincere expression of reality this is without delay tied to the identity of its speaker. This specific topic can be the maximum beneficial along with Bakhtin's technique to comparing Dostoevsky as it emphasizes the importance of a verbal expression of one's very own fact, that's in retaining with the belief of a character's voice directed at himself in its negotiation of his very own identification. In this discussion, it will become possible to elaborate on a technique to truth that covers truth insofar because it will become a confrontation in Dostoevsky's novels. The time period disagreement has been chosen in particular as it addresses the Bakhtinian concept of ideological extension in Dostoevsky'sappropriate approach. Afterward, this can be mentioned in greater detail because it pertains to Foucault's idea of fact as discovered at the factor of the transgression of a long-time border. At this factor, even though, it's miles really worth mentioning that the concept of "borders" is tricky for Bakhtin (a hassle which extends to Foucault's dialogue, as well) in that it reasons analways paradoxical components of truth. Given that reality, as a talk, is an everchanging (this is, ever transgressing) system of negotiation, there can truly be no such factor as boundary. This discussion of Foucault's approach to direct (or explicit) fact-telling is later supplemented with an exploration of the technique to reality because it relates to Sigmund Freud's method. Proscribing the evaluation of self-developed identity in Dostoevsky's characters to Foucauldianveridiction dangers overlooking the unspoken dialogic improvement of those characters (as stated above in the discussion of double-voiced discourse). By Abstracting fairly Freud's instruction for psychoanalytic exercise, it is effortlessly viable to apply the basis of psychoanalytic inquiry, in terms of extrapolating subconscious ideas from styles in occur behaviours, to Dostoevsky's dialogic method.

Conclusion

The works of Kafka and Dostoevsky provide a profound and nuanced exploration of the human situation, highlighting the complexities and contradictions of identity in modernity. Through their protagonists' struggles with alienation, absurdity, and psychological complexity, each authorcaptures the essence of the fragmented self, revealing the deep-seated anxieties and contradictions that lie on the heart of human existence. Is born of the very non-public and precise revel in— that of an assimilated Bohemian Jew.Even though Kafka's masterful writing elevates his material to an enduring repute that surpassed his non-public and historic context, he valued the political and historical context wherein he lived and wrote. Kafka did not view politics and political affairs as something he needed to purposely suppress in his paintings. On account that people lack an experience of context, their literary sports are out of context too.They depreciate something as a way to be able to appearance down upon it from above, or they praise it to the skies if you want to have a place up there beside it. Despite the fact that something is frequently thought via flippantly, one still does no longer reach the boundary where it connects with similar things, one reaches this boundary soonest in politics, certainly, one **e**ven strives to look it earlier than it's miles there, and often sees this restricting boundary everywhere. The narrowness of the field, the concern too for simplicity and uniformity, and, in the end, the attention that the inner independence of the literature makes the externalConnexion with politics innocent, result in the dissemination of literature without a U.s. on the premise of political slogans.

Metamorphosis is a masterful fulfilment in literature in that it captures not most effective theIsolation and depression of a single time and location but of the whole current technology. While analysing Kafka, it is straightforward to interpret his signature neutrality as an attraction to universality but his neutrality is born of the very non-public and specific enjoy— that of an assimilated Bohemian Jew. Even though Kafka's masterful writing elevates his cloth to a long-lasting status that handed his non-public and ancient context, he valued the political and historic context wherein he lived and wrote. Kafka did not view politics and affairs of state as something he had to purposely suppress in his paintings.Due to the fact people lack a feel of context, their literary sports are out of context too. They depreciate something with a purpose to be able to appearance down upon it from above, or they reward it to the skies with the intention to have an area up there beside it. Despite the fact that something is often idea through calmly, one nonetheless does now not reach the boundary wherein it connects with similar matters, one reaches this boundary soonest in politics, certainly, one even strives to see it before it is there, and regularly seeing this proscribing boundary anywhere.the narrowness of the sector, the concern too for simplicity and uniformity, and, finally, the consideration that the inner independence of the literature makes the external connexion with politics harmless, bring about the dissemination of literature without a country on the premise of political slogans. Kafka's *Metamorphosis* communicates the topics of isolation and despair, subject matters that haveend up synonymous with the modern era. GregorSamsa's war to connect to those rounds him and benefit genuine popularity from his own family is a conflict common to all of humanity.

Understanding some of the techniques utilized by Dostoevsky's complicated characters to discover and increase their personal identities. This technique hinges at the idea that character characters are not hooked up a lot as they may be continually setting up themselves. The technique via which they do this is a persistent negotiation of that man or woman's very own fact, or as Bakhtin summarizes, by using answering the question of who they may be with regards to the world round them. We diagnosed a part of the overall structure of our method of evaluation. The muse of this approach is grounded in Bakhtin's technique, which elaborates diverse kinds of the dialogic tactics via which characters work to assemble themselves. Within Bakhtin's method, we narrowed in on three varieties of speaking that I accept as true with provide an adequate categorization for formative individual speech. To this foundation was applied a summary filter created from a dual lens of an Interpretation of Foucault's analyses of various styles of veridiction and a Freudian know-how of feasible subconscious manifestations of truth. The motive of combining those procedures is to account each for truths openly negotiated with the aid of a man or woman as nicely because the unstated truths that are though communicated surely, if indirectly, in the contradictions and hypocrisies of those characters. The second one chapter includes a demonstration of ways this approach can be implemented to investigate the techniques used by diverse characters to present and evolve their very own reality in the context of the broader novel. The psychologically dense and self-reflective nature of Dostoevsky's characters makes them Ideal subjects through which to illustrate this method. Raskolnikov, being the epitome of the sort of conflicted rogue liked through Dostoevsky, can function as a more or less perfect version for the software of these individual-setting up strategies. Notwithstanding his persistent mental chaos, the dialogic negotiation of his truths is accomplished faithfully and constantly over the course of the novel. Prince Mishkin is, in many methods, the full contrary of Raskolnikov. He possesses positive deeply held, unchanging truths to which he adheres at some stage in the course of the novel. There are, though, many methods wherein he nonetheless works to negotiate and establish those truths as constitutive functions of his identity. Similarly, he also finds himself negotiating a certain unconscious reality of himself in spite of his in any other case specific Convictions. In addition, Mishkin's machinations during the events of the fool assist to illustrate not simplest the validity, however the necessity of those ordinary negotiations of truth for different characters inside the novel. He interferes with the approaches that characters are capable of negotiate their own truths, which constitutes a contravention in opposition to which those characters rebellion. Mishkin is in some ways normal of Dostoevsky's characters; and in other approaches he is the exception that proves the rule. This method shines a new path on the persistent push and pull of the communication in Dostoevsky's novels and its feature in growing open-ended characters. The counterpoint created by means of comparing and contrasting the fool with Crime and Punishment prevents us from oversimplifying the complexities of Dostoevsky's characters whilst on the same time emphasizing the validity of this approach of evaluation.

Limitations

Kafka's works often portray people as isolated and disconnected from society. While this may be a powerful commentary on modernity, it can no longer appropriately capture the complexities of human relationships and identification formation. Kafka's protagonists frequently appear powerless in opposition to the forces of forms and societal expectations. This can perpetuate a feel of hopelessness and melancholy, instead of encouraging people to take action and shape their very own identities. Kafka's works can also oversimplify the complexities of human identification, reducing it to an unmarried, defining feature or battle. Kafka's works might not account for the intersections of a couple of identification classes, including race, elegance, gender, and sexuality, that could shape a man or woman's reviews and identity formations. Kafka's works are regularly disconnected from their ancient context, that may restrict our know-how of the social, cultural, and financial factors that shape identity formations. Kafka's works often rely heavily on symbolism, which could result in more than one interpretation and a lack of clarity regarding the author's supposed that means.

Dostoevsky's works frequently cognizance at the inner lives and psychological struggles of his characters, doubtlessly neglecting the position of social structures, institutions, and collective identification formations. Dostoevsky's works often painting human nature as a battle between appropriate and evil, purpose and passion, or light and darkness. This dualistic view can oversimplify the complexities of human identity. Dostoevsky's works won't properly explore the social and cultural contexts that shape identification formations, doubtlessly neglecting the role of historic, cultural, and financial elements. Dostoevsky's works often recognition on intellectual and philosophical debates, doubtlessly neglecting the function of feelings, intuition, and embodied revel in shaping human identity. Dostoevsky's works won't account for the intersections of more than one identification categories, such as race, class, gender, and sexuality, that could form an individual's experiences and identification formations. Dostoevsky's works are frequently disconnected from their historical context, that could restriction our information of the social, cultural, and economic factors that shape identification formations. Dostoevsky's works won't thoroughly constitute the experiences and identity formations of non-Western cultures, potentially perpetuating a Eurocentric view of human identity.

Bibliography

- Anderson, Mark. *Reading Kafka: Prague, Politics, and the Fin de Siècle*. New York: Schocken Books, 1989.
- Anthony, Julius. *Trials of the Diaspora: A History of Anti-Semitism in England*. Oxford:
- Oxford University Press, 2010.
- Bailly, L. (2009).*Lacan: A Beginner 's Guide*. One World Publications.
- Bauer, Jehuda. *A History of the Holocaust*. New York: Franklin Watts, 2001.
- Bakhtin, Mikhail. *The Dialogic Imagination: Four Essays*. Edited by Michael Holquist.
- Translated by Caryl Emerson and Michael Holquist.Univ. of Texas Press, 2011.
- -*Problems of Dostoevsky's Poetics*. Edited and translated by Caryl Emerson.
- University of Minnesota Press, 1984.
- Beller, Steven. Rethinking Vienna 1900. New York: Berghan Books, 2001.
- Castle, G. (2007). *The Blackwell Guide to Literary Criticism.*Blackwell Publishing.
- Dostoevsky, Fyodor Mikhailovich. *Crime and Punishment.* Translated by Constance
- Garnett, Barnes & Noble Classics, 2007 [1866].
- -*The Idiot.* Translated by Constance Garnett, Barnes & Noble Classics, 2004 [1868]
- Freud, Sigmund. *Civilization and Its Discontents*. Translated and Edited by James Strachey. New York: W. W. Norton and Company, 2010.
- Johnston, I. (Trans.). (1912). Kafka, F.The Metamorphosis. Feed book
- Kafka, Franz. *Letters to Milena.ed. William Haas* trans. Tania and James Stern, Schocken Books, New York 1953. 24.
- Kafka, Franz. *The Metamorphosis*.Translated by Joyce Crick. New York: Oxford UniversityPress, 2009.

Power Dynamics or Dynamic Power
A peek into world work cultures

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Abstract

Although every single individual from same region speaks the very same language, the shift in tone, replacement of more polite words is observed depending upon the person in front's position in society. This being one of the phenomenon experienced by everyone in their daily lives, is yet untouched by the researchers. Usually, in a place with professional background, language is seen changing with changing positions in hierarchy. The tone, the accent, the body-language, the eye contact, the choice of words are all affected by the position of the person in the hierarchy. Power dynamics, Sociolinguistics and their interconnection are the concepts that are not thought enough of. This research studies the impact of Power Dynamics on Sociolinguistics at a workplace with respect to western and eastern countries which leads us to explore how Power Dynamics plays a pivotal role in Eastern countries than those in West; hinting towards the fact that they have a strong cultural influence since past.

Key words

[Power Dynamics, Sociolinguistics, Culture, Globalisation, Host nation, Professional setting, workplace, Psycholinguistics, Honorifics]

Introduction

Amongst some commonly spoken of topics in linguistics, there are some topics that are neglected or yet unknown of. This drives us to one of the concrete concept of 'Power Dynamics' which is evidently existent in majority of the countries and it's interconnection with Sociolinguistics. Although there have been multiple researches on Power Dynamics and Sociolinguistics as an individual topic of study, one of the areas that was yet unexplored was inter-relation between Power Dynamics and Sociolinguistics. This, with the aim of better understanding of the concept power dynamics, sociolinguistics and their inter-relationship, a secondary research was conducted.

Since the end of last millennium, 'Globalisation' has been a buzzword. It is responsible for the decreasing gap between the nation's all round the globe and the world turning into a global village. This, it makes it more important for us to understand how Power Dynamics plays an important role in linguistics throughout the cultures around the world. This research article intends to peek into the same and help us with the understanding of some of the following points:

- What is Power Dynamics?
- What is Sociolinguistics?
- The interconnection between the both.
- Comparatively overlooking the role of P.D in SocioL. In western and eastern nations.

Findings and Results

Power Dynamics is a newly evolving concept of study in linguistics. Being said that, it does not mean that power dynamics never existed. As name suggests, power dynamics is concerned about the power held by someone and the term 'dynamics' hints us to the dynamic nature of power in lives. To give an instance, let's say that there are two people who are clothes. One is a tailor and the other is a fashion designer. Our perspective towards both, the way we approach them will differ in various ways. At a base level of knowledge, both sew clothes; but the basic yet major difference between them is that we instruct the tailor as to how we expect our dress to be. On the other hand, a fashion designer not just matches our requirements but also add some more elements to get better results. And here is where we understand, that a fashion designer has a more intricate knowledge of fashion than the tailor. And this impacts the power held by both in the society. Thus, our way of approach towards both also differs . And that is what power dynamics is all about – Your position in the society!

When we speak of power dynamics and it's role in the society, we notice one thing, which is changing behaviours and the language use. Changing language here indicates the visible change in the same language like change in tone, choice of polite words, thoughtfulness in speaking and much more. These changes in language use depending upon the societal factors is studied under the branch of Sociolinguistics. Sociolinguistics is a compound term formed by combining, sociology and linguistics. Sociolinguistics is one of the many branches of linguistics. Sociolinguistics studies societal factors and their impact on upon linguistics in a scientific manner. Linguistics itself being dynamic in nature, Sociolinguistics too is dynamic.

It's study is not constructed to sociology and linguistics but is linked with many other branches concerned with linguistics. Thus, psychology too, plays some major role in the study of Sociolinguistics. There are many theories like, polite speech theory, speech act theory and such that justify the interlinking of psychology and Sociolinguistics. This suggests that studies have been conducted in an empirical manner about social factors and linguistics behaviours having an impact on each other and thus has lead to the formation of linguistic theories.

Now, looking at Sociolinguistics as a scientific branch of study, let us focus on its correlation with Power Dynamics while keeping world cultures as our subject of study.

While studying the impact of P.D. (Power Dynamics) on Sociolinguistics at a workplace throughout the world, here, we will divide the world as west and east. To be more specific, Asian countries. Taking into consideration the two variables- western countries and eastern countries, our aim will be to comprehend how P.D.'s effect on Sociolinguistics in a professional background in western countries differs from that of in Asian countries.

In today's times of globalisation, there are people from West countries who opt for working in Asian countries and so do many Asian people. As the records from last go, Americans and Europeans are referred to as "White". When non-white people try to settle and work in Euro-American countries, they go face racism most of the times. Non-white people are either from Africa (widely referred to as "Black"), Minorities or Ethnic groups. BME is the umbrella term for such people who fall in either of these classifications. No matter how highly educated, highly well qualified a person from BME is, they have to suffer from either racism, or cultural discrimination. If the BME is a woman, she is most likely to face racism, sexism or gender discrimination at the work place. Studies indicate that foreign workers in Western nations face challenges related to inclusivity, as highlighted in research by [Yasmeen Hussain, Kellyanne Findlay, 2024] at a workplace. (See Exhibit A) Euro-Americans tend to think high if themselves because of some historical records. The discrimination is not just about ethnicity but the race, the gender and many more things. (See Exhibit B) Thus, BME tend to find it difficult to adjust in western countries. In the western countries, power is mostly held by a local- someone with same ethnicity. A BME trying to outdo the local is most likely to face adverse circumstances. Locals are the members of inside – group. BME are the members of outside-group.

While in Asian countries, where there is a developed country like Japan, many westerners tend to settle in Japan and earn for livelihood. Such Asian countries which are the host nations for westerners, English is not a currency. Despite of many Asians knowing English, day-to-day conversation and exchange of dialogues at workplace mostly take place in the local language that is the mother tongue of people. Thus, for countries like Japan, India, although they are welcoming towards foreign employees, language becomes an obstacle. Majority of the Asian countries have strong cultural influences on language. Depending upon the position of an individual at a workplace, not just the approach towards the person, the language changes as well. For countries with strong culture like Japan, their work culture has three classifications of their employees. A senior is a "Senpai". A junior is a "Kouhai". And if a person is at the same position as that of yours then they are "Douryou". Language used with Senpai has honorifics. Speaking to a douryou is formal but does not consist of the honorifics. And one may speak casually with their Kouhai. It is easy to become a part of the group of company if you know their language. However, cultural impact on the language and the daily activities is highly visible.

Scope of the Research

This research based on secondary data, primarily shades light on the effect of power dynamics in Eastern and Western countries in all. As every individual nation has its own way of governance, every single company has its own sets of principles in work. This research speaks of eastern and western countries as whole and does not take into consideration every single nation of East and every single nation of west. Thus ,it can be stated that this research gives us a broad idea of work cultures from east and west at a ground level rather in depth.

Limitations

This work overlooks the work cultures of east and west. However, certainly, there are many more unexplored or unknown aspects to companies' administration around the world. There are many more peculiar elements like atmosphere of the company, skill enhancing events, inclusive schemes to attract female employers and increase their number, etc. While this research speaks of the role of P.D. at the workplace, it creates a pathway for future researchers to study the role of P.D. in society.

EXHIBIT A

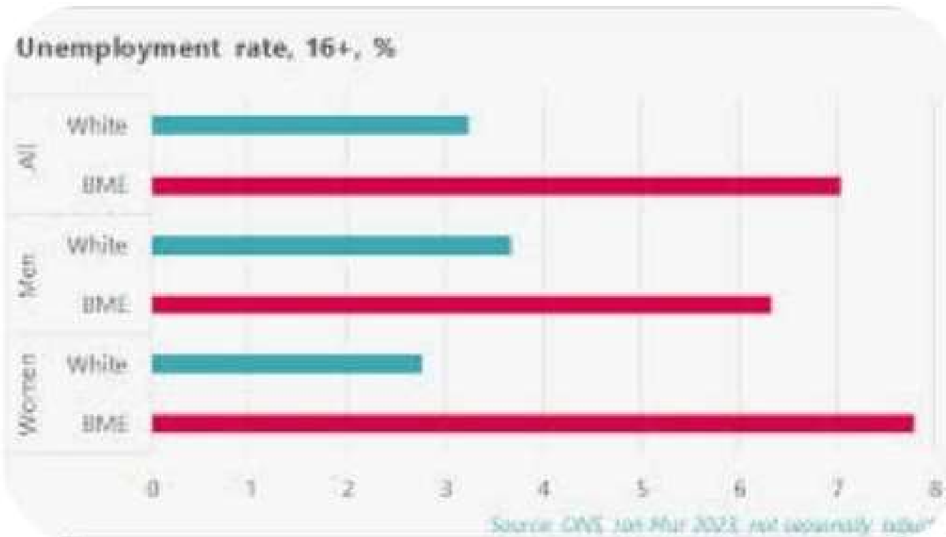
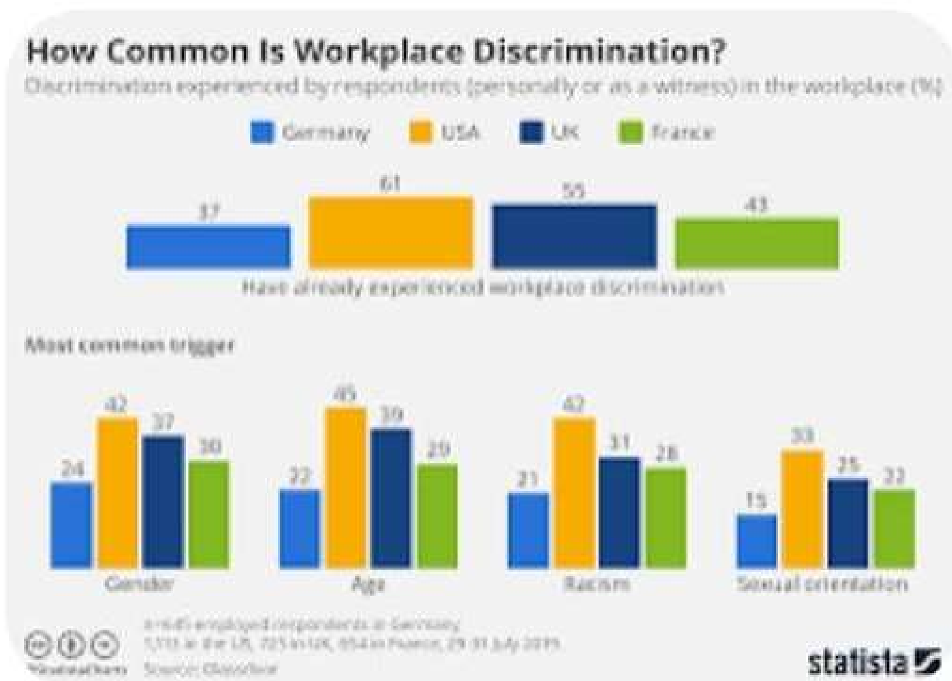


EXHIBIT B



Conclusions

It can be seen that western countries have exclusive environment towards foreign employees, whereas Asian countries seem to be far more welcoming. In western countries, impact of Power can be barely seen on the linguistics. Western countries seem to possess negative-outlook towards the outsiders. On the contrary, Asian countries with strong cultural base show strong impact of P.D. on linguistics.

In essence, it can be said that, power dynamics has influence on Sociolinguistics in eastern countries more than in western countries.

References

- https://www.sciencedirect.com/science/article/pii/S1322769625000113?ref=pdf_download&fr=RR-9&rr=910b7f02fa089a99
- https://www.sciencedirect.com/science/article/pii/S0277539525000159?ref=pdf_download&fr=RR-9&rr=910b842089379a96
- https://www.sciencedirect.com/science/article/abs/pii/B0080430767030278
- https://www.sciencedirect.com/science/article/abs/pii/S0388000101000055
- https://www.sciencedirect.com/science/article/abs/pii/S1075425325000134

Role of Science in Food Culture

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Abstract

Since the dawn of civilization, humans have been shaping their civilization as per nature. Adaptation is what has led us to technological advancement today. This adaptation can also be seen through food cultures of various civilizations. These food cultures were shaped by geography, climate and human ingenuity. Science played a crucial role in shaping these food cultures as we see today. It has shaped our culinary traditions through preservation, fermentation and various cooking techniques. This article explores how science directly shaped food cultures. It talks about how climate, geography and various biochemical processes shape the food culture by studying food culture of India, Japan, Russia and Indonesia. We will see how these cultures adapted as per nature with the help of science and what are future challenges that are waiting for them.

Keywords: Food Culture, Climate, Sea, Preservation Technique, Cooking Technique, Fermentation, Pickling, Future Challenges, India, Russia, Indonesia, Japan

Introduction

The most fundamental necessity for human survival has always been food. In the early stages of human evolution, as individuals began forming communities and organizing into structured societies, agriculture emerged as the cornerstone of civilization. It not only provided a stable source of nourishment but also allowed humans to settle in one place, fostering the growth of villages, towns, and eventually cities. During those times, the means of trade were underdeveloped, and technological advancements were minimal. As a result, early civilizations were heavily reliant on their natural surroundings—weather patterns, soil fertility, availability of water, and seasonal cycles—to fulfill their dietary needs.

However, this reliance on nature came with its own set of challenges. Climatic variations such as droughts, floods, or prolonged winters often disrupted the availability of food, leading to periods of scarcity. Additionally, these conditions required constant adaptation in cooking techniques, dietary choices, and food preservation methods. In the face of such adversity, communities began to develop unique sets of principles and practices around food—principles that not only ensured survival but also gradually evolved into systems of nourishment, health, and even cultural identity.

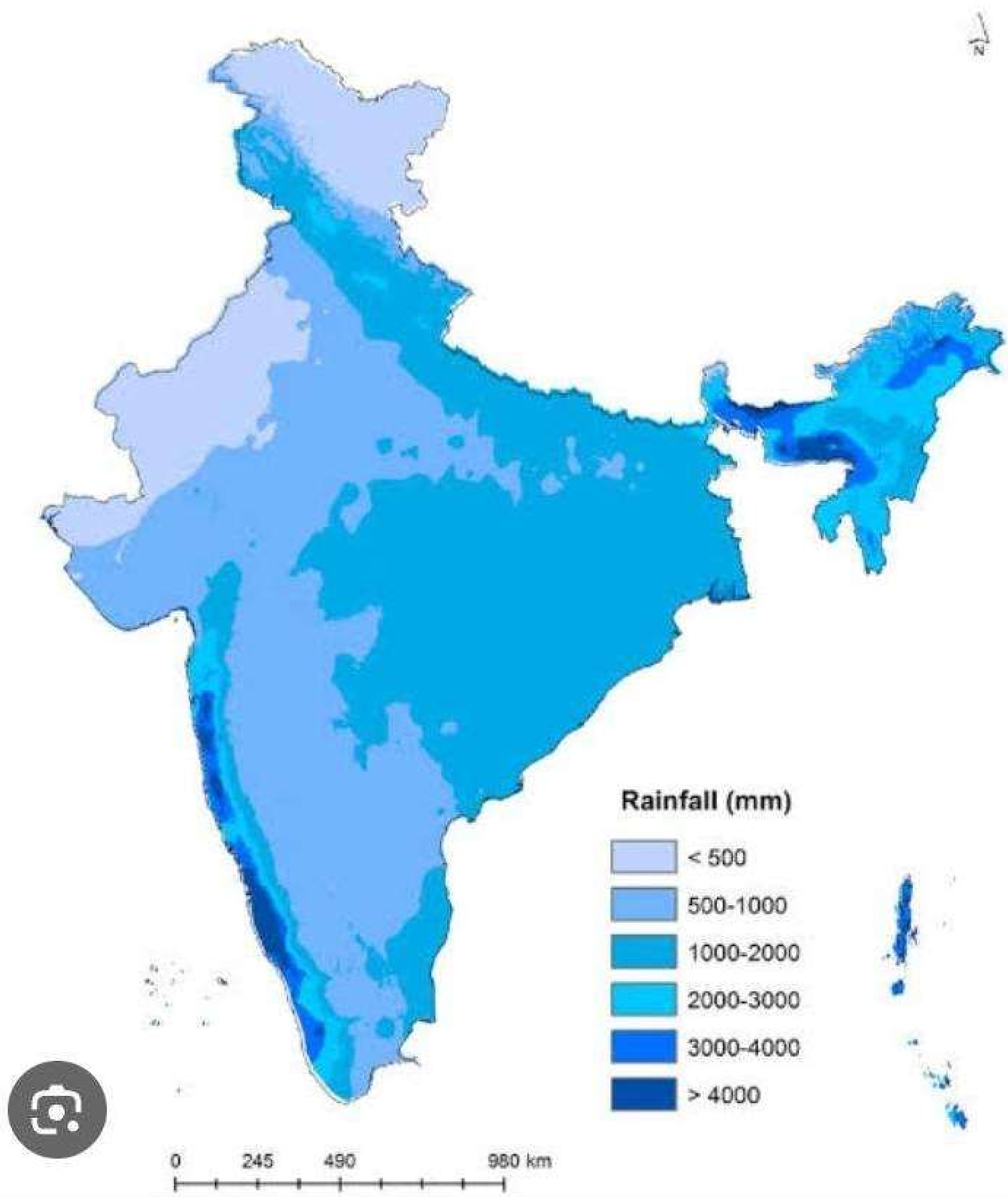
These principles were not arbitrary; rather, they were grounded in observation, experimentation, and a deep understanding of natural phenomena. Factors such as the thermal nature of food, methods of preservation to prevent spoilage, the relationship between diet and climate, and the nutritional value of locally available ingredients played a crucial role in shaping these early food systems. Over generations, this knowledge was carefully handed down, refined, and adapted according to regional conditions. What began as survival strategies eventually became traditions, giving rise to what we now recognize as distinct food cultures.

Every region in the world, influenced by its geography, climate, flora and fauna, developed its own unique culinary identity. These food cultures are not merely collections of recipes—they are reflections of the wisdom of ancient communities, shaped by necessity, refined by experience, and preserved through ritual and routine. From fermentation techniques in colder regions to the use of cooling spices in tropical climates, each practice carries a scientific logic rooted in environmental adaptation.

This article seeks to explore food cultures through a scientific lens—analyzing how traditional food practices were influenced by natural laws, environmental constraints, and human innovation. By examining the origins and evolution of these cultures, we can gain deeper insights into the relationship between food, science, and human survival, while also appreciating the intricate tapestry of global culinary heritage.

Observations

Indian Food Culture



The Republic of India is located in the Indian Subcontinent. It is surrounded by Arabian Sea in the west, Bay of Bengal in the east, Indian Ocean in the south and Himalayas in the north. There are various mountain ranges like Aravali hills, Western Ghats, Eastern Ghats, etc. It also has Thardesert and the Kashmir, Ladakh valleys. These areas are significant as well. Due to this various weathers are experienced at the same time. Figure 1 is the average rainfall map of

India. In this map we can draw a line which gives a lot of information about diet of an average Indian. It starts from coastal region of Maharashtra and ends up crossing Bihar in a straight line. On the right side of this line non-veg consumption is more. This is due to availability of sea shore and hence sea food is more popular here. On the left side non-veg consumption is comparatively less. On the right side due to more rain, rice cultivation is more and due to this the dishes surrounding rice or rice as main ingredient are eaten by people. On the left side especially in states like Punjab, Haryana wheat cultivation is done more and as a result the diet of the people are dishes that can be eaten with various breads like Kulcha, Bhature, Paratha, Roti, etc. But what about areas where rainfall is very less? In these areas there are some grains that grow despite soil having less fertility, less water and various adverse conditions. However, these are often rich in proteins and other minerals needed for the human body. These are called millets. The most used millets are Jowar, Bajra and Ragi. Hence, these areas have dishes surrounding them. Veg food consumption is more on the left side compared to the right side. The people living on the left side are more milk tolerant compared to the right side and milk consumption is also more on the left side.

Along with that India is the largest producer and consumer of pulses and legumes. These are quite rich in protein and are used in almost every household of India. India is not only the largest producer but also the largest consumer and exporter of spices in the world.

The country’s diverse climatic conditions allow for the cultivation of a variety of spices, including pepper, turmeric, cardamom, ginger, coriander, cumin, fennel, fenugreek seeds, clove, nutmeg, cinnamon, and saffron, among others. This makes a part of everyday dishes and carry out certain mineral’s requirements.

Preservation techniques:

Pickling - Pickling is one of the most common preservation techniques across India. This technique was developed to store certain green vegetables and fresh fruits which lasted for a season. The basic principle is drying the main ingredient to take out all of the moisture to prevent spoiling of food. Meanwhile various spices like mustard, fenugreek seeds, funnel, etc are roasted with turmeric and then mixed with oil which makes an acidic medium. Then the main ingredient which was dried is put in this mixture and the pickle is stored. It follows herbal fermentation process where as more time passes the pickle acquires its own taste. This not only stores seasonal fruits like Amla, Raw mango or vegetables like Carrot, Radish but also retain its fibre and other important nutrients. Typically, if you live in South of India sesame oil is used and in the northern part mustard oil is used. Each house has its own recipe and today there are many market players trying to monopolize the pickle market of India.

Drying - We know that the food we eat spoils really fast. This is mostly due to microbial growth within the food. They not only grow but also increase various biochemical reactions within the food and as a result the taste, texture, smell, etc. of food is changed. One of the effective ways of stopping this for a long time is drying. In this method moisture is removed by various means. This prevents microbial growth and as a result food remains edible for long period and its nutrients can be used. In Indian food culture, this technique was also used to store seasonal fruits. The best example of this is Amchur powder. In Amchur powder Raw Mango is peeled, then cut into thin slices and are sundried. After drying it is blended and you get your own Amchur powder. This powder carries the test of raw mango and is used in daily Indian cooking. Drying also stores necessary Vitamins (B and C). There are numerous drying techniques from traditional to modern India with each having its own efficiency. Modern techniques are more efficient. If drying is not done perfectly, it can catch harmful fungus or dangerous microbes causing diseases.

Cooking techniques-

Fermentation - Fermentation is most widely used cooking technique in India. It traces back to Vedic Era and the very first documented fermented food is a drink called Somras. The science of fermentation is very simple. It is a biological process in which microorganisms such as yeast, Molds, and bacteria consume the sugars and starches present in food, leading to significant chemical and structural modifications. A key player in this transformation is Lactic Acid Bacteria which facilitates and regulates the fermentation process. Over time, fermentation techniques have been refined to maximize their benefits, enhancing the taste, texture, and digestibility of food. Additionally, this process increases the nutritional value of foods by boosting their content of B vitamins, omega-3 fatty acids, and other essential nutrients. It also prevents various gastro-intestinal diseases, certain types of cancer, diabetes, etc.

There are various ways you can eat fermented food. There is fermented drink like Somras which is first documented fermented product in India tracing back to Vedic Era. Another way to eat it is as a lunch or breakfast. Idli is one of the best fermented foods which has protein content along with carbs in good amount. In it, Rice and Urad dal is washed and soaked for 5-6 hours or overnight. After that it is blended and two batters (Rice and Urad) are made. These batters are mixed with spoon or hands. In this mixing with hands is preferred because in order to start the fermentation process, a little heat is needed. This batter is again put to rest around 5-6 hours. After 5-6 hours this batter is expanded and properly fermented. It is then steamed into the desired shape and Idli is made. Idli contains a lot of protein and carbs and completes the nutrition requirement when eaten with Sambar. In modern cooking, Idli is also made using Ragi, Rava, etc. to increase protein contents and nutrients.

Another such fermented side dish is Curd. Curd is mentioned in Ayurveda as well. It is made by using warm milk. This milk is put in a pot/vessel in which a small portion of previously made curd is already present. It is then put in a place where it can gain little heat needed for fermentation. The lactobacillus present in existing curd grows and after overnight curd is made. Curd is typically tangy. The Indian diet is very spice based due to climate conditions allowing it to grow. Hence, a lot of dishes contains spices. To prevent any gut problem curd is eaten as a side dish. Along with this, curd is also basis to a lot of sweets and other beverages as well.

Steaming- Steaming is a common cooking method in India. In this process, food is cooked using the heat from steam. First, water is heated in a steamer until it starts simmering. Then, the food is placed inside, and the vessel is covered. As the water turns into steam, it surrounds the food, cooking it evenly. This method helps retain nutrients and enhances the flavour of the food.

As discussed above, Idli is made with same technique. Rice and Dal are an important part of Indian food culture. In a similar manner, Idli is also made by steaming in a cooker.

Another example is Khichadi. This traditional Indian dish is eaten across states with their own recipe. In this Rice and desired pulse is taken and washed properly. Then in a cooker, oil is heated followed by adding Mustard, Cumin, etc. Then rice and pulses are put and turmeric and other spices are added, followed by addition of water. This is then put to steam and after steaming your khichadi is ready to eat.

1. **Future challenges and Potential Solutions -** The report from NITI Aayog, (NITI Ayog- *Presidential Address Transforming Agriculture for Challenges of 21st Century*) emphasizes the critical role of agriculture in India, noting that nearly three-quarters of Indian families rely on rural incomes and that about 70 percent of the poor live in rural areas. Despite agriculture's shrinking share of the national economy, it remains vital for food security and rural livelihoods. India is a global leader in various agricultural sectors, producing large quantities of milk, pulses, spices, rice, wheat, and cotton, among other

commodities. However, the sector faces significant challenges, including the need to increase productivity per unit of land, address water resource limitations, and overcome low yields compared to other countries. Additionally, rural poverty remains a pressing issue, compounded by the slow pace of agricultural growth and low wages in the sector. To address these challenges, policy measures are recommended that focus on modernizing agricultural research and extension services, improving water and irrigation management, and promoting diversification into higher-value commodities such as dairy and agro-processing. Enhancing rural credit, reforming marketing systems, and encouraging community-based livelihood programs are also seen as essential for inclusive growth. The World Bank is playing a major role in supporting these reforms through a comprehensive program that includes investments in technology, irrigation infrastructure, rural roads, and market access, with the aim of transforming India's agricultural sector into a more productive, competitive, and sustainable engine for growth. Additionally, the ground water level is going low so the Indian government is conducting a 'Millet' festival to increase consumption and production of millets which needs less water and can grow easily.

Japanese food culture-

Raining and agriculture trend- Japan is an island nation situated in Pacific Ocean. The main crops of Japan are wheat, barley, soybeans, corn and rice. Out of these, wheat and barley are winter crops while others are summer crops. Due to access to the sea from all sides, Japan has a large seafood industry. Hence, Fish plays a key role in their diet. The dairy industry of Japan is smaller and 50 percent of milk is contributed by the Hokkaido region alone.

Preservation techniques-

Pickling- Pickles in Japan are called as 'Tsukemono' which means pickled things. The Pickling industry in Japan started growing during Edo period (1603-1868) as number of consumers were increasing during this time. There are over 600 varieties of regional pickles in Japan due to use of different beds, brine and ingredients. Tsukemono can be categorized according to their Pickling bed. The pickling beds are shiozuke (salt), shoyuzuke (soy sauce), suzuke (vinegar), nukazuke (rice bran), misozuke (miso), kojizuke (rice malt), and kasuzuke (sake lees). They can be classified as per ingredients used as well. One of the common pickles used is Asazuke. Asazuke means lightly pickled. These are made by salting vegetables like cucumber, cabbage and Daikon. Sometimes additional flavour of garlic, ginger is also added. This results in crisp and retention of flavour of the vegetable used. It also needs less fermentation time (few hours) and is prepared quickly.

Salting- As mentioned above Japan is surrounded with the sea, resulting in fish being main part of their diet. However, the Pacific Ocean not always allows necessary conditions for fishing. Hence, salting was introduced in Japan to preserve fish. This method has been used from late Jomon period (13000-300 BCE). This method is so popular that during the 7th century CE, people of Japan started giving salted salmon and other varieties as a tax to the emperor. The basic principle of salting is to dehydrate fish by using salt. The salt starts the process of osmosis where a solvent (water in this case) starts moving from fish towards salt. This in result dehydrates fish preventing further microbial growth and spoiling. There are 2 types of salting namely furishio-zuke (salt sprinkling) method and tatejio-zuke (immersed in brine). In furishio-zuke salt is directly sprinkled over fish causing dehydration. The method has high dehydration effect due to surface of fish constantly covered in saturated salt solution. This method used is on large fishes like salmon, trout and cod. However, salt is not evenly spread and some areas of fish are exposed to air resulting in oxidation of lipids present in fish. The second method Tatejio-zuke covers negative aspect of first method. In this, fish is immersed in a brine of saturated salt concentration. As a result, salt is spread out evenly and no area of fish is exposed to air preventing oxidation of lipids. However, measures need to be taken to make sure that concentration of salt in brine remains constant. It also requires containers for salting. This method is used for small fishes or when low sodium product is intended.

Cooking techniques-

Nimono- Nimono is one of the famous cooking techniques in Japan. It is basically vegetables, fish or meat simmered in broth. They are eaten with other side dishes called okazu. The dashi is first made by simmering and straining kombu and bonito flakes. After that soy sauce, mirin, sake and sugar are added. This makes classic dashi broth. Later ingredients of your choice are added and cooked. Some dishes retain liquid while in some, liquid is completely absorbed. While cooking an otoshi-buta (a lid smaller than diameter of cooking vessel) is used to prevent food from moving too much in order to prevent delicate nature of the dish. A classic example is *Kabocha no Nimono*. In this kabocha pumpkin is simmered in broth until it absorbs the broth completely. In this otoshibuta lid is used and it is cooked over very low heat to prevent pumpkin from getting mashed or crumbled.

Mushimono- Mushimono means steaming in Japan. Steaming is a traditional cooking method that has been used in Japan for thousands of years. In this technique, ingredients placed in a steam pot are cooked by the rising steam from the boiling water below. This process forces out excess moisture while preserving the food's natural flavours since it does not come into direct contact with the water. Additionally, the shape of the steamer plays a crucial role. Many chefs recommend using a round-shaped steamer over a square one, as it distributes heat more evenly and creates higher pressure, ensuring that the food is cooked uniformly.

In Beppu, a small town in Japan's island of Kyushu, the natural hot springs, or onsen, have inspired a unique cooking method known as JigokuMushi, or "hell steaming." Here, customers purchase meat, fish, and vegetables on-site and cook them in containers that are directly connected to the steam rising from the geothermal waters. This is quite a useful technique.

Future challenges and potential solutions- Japan's agricultural sector is facing a radical transformation due to a rapidly aging rural population. From 2005 to 2015, the number of farms fell by 30 percent, and today over 70 percent of landowners are over 60 years old, with nearly 10 percent of agricultural land abandoned. This decline in family farming, coupled with labour shortages and difficulties in passing on farms to the next generation, has become a pressing political challenge. To address this crisis, there is a critical need for more comprehensive agricultural data—beyond what the 2015 census provides—to inform effective public policies. Improved statistics on labour, farm acreage, and sales, along with better cross-analysis of data on farm ownership and management, could help shape policies that support sustainable agricultural growth. Meanwhile, initiatives like the Small Family Farming Network, Japan is working to promote family farming and strengthen rural society.

Russian Food Culture

Trends in Agriculture - The European part of Russia has been suitable for agriculture for many years. Russia is one of the largest producers of wheat in the world. Along with wheat Russia also produces corn, soya beans, barley, sunflower, millets, potatoes etc. Along with that Russia also consumes fish and other non-vegetarian forms of food. Russia is also very much dependent on its dairy industry. The average output per cow has been increasing in Russia over the years. This is due to various interbreeding and other programs by the government.

Food preservation -

Pickling - Russia faces a very tough winter and during this time it's hard to produce or store any food or vegetable. One of the best ways of doing this is pickling. Have you ever imagined tomato, watermelon or garlic pickles? While this sounds weird, they do exist and are created by none other than Russians. The Russians follow an old saying 'Fix your cart in winter, and sled in summer'. Since pickling is a fermentation process it retains all the nutrients of the food and is quite good for health. The best example is watermelon pickle. In a large mixing bowl, combine one tablespoon of salt, sugar, pickling spices, cayenne pepper, vinegar, garlic, celery, and fill it with eight cups of water. Stir until the salt and sugar are completely dissolved. Submerge the watermelon wedges in the mixture, ensuring they are completely covered. Seal the bowl with plastic wrap and refrigerate for at least one week before serving to allow the flavours to develop. This way your watermelon pickle is ready. Similarly, in Russia there are garlic, apples, lemons' pickles and so on.

Canning- Another technique to store food is canning. Basically vegetables, pickles, fruits or other food that needs to be stored for winter are put in large jars which are first sterilized,then a metal plate is put on them to prevent spoiling. This jar typically contains at least 3 litres to store more food. One of the examples is fruit compote. Fruit compote is simple and versatile, perfect for fresh or overripe fruit. Wash the plums, remove stems, and optionally remove the pit to prevent toothache. In a large pot, bring water and plums to boil. Reduce temperature, add sugar, and stir until it is dissolved. Cover and simmer for 20 minutes. Let it cool completely, then rest for two hours to enhance flavour. Serve at room temperature or chill it.

Cooking techniques-

Fermentation- Fermentation is very popular in Russia as well. Russians have lot of fermented dishes. One of them is Kvass - a very popular Russian fermented drink. To prepare traditional Kvass, start by combining 500g of rye bread, cut into small cubes, with 2 litres of boiling water. Let it sit for about 4 hours, then strain the liquid into a clean container. Dissolve 100g of sugar and 5g of dry yeast in the strained liquid, stirring well. Optionally, add a handful of raisins or a tablespoon of honey for extra flavour. Cover the container with a cloth and let it ferment at room temperature for 12–24 hours, depending on the desired level of fermentation. Once fermentation is complete, strain the Kvass again, pour it into bottles, and refrigerate for at least 12 hours before serving. The result is a mildly sweet, slightly tangy, and refreshing fermented drink. Russia has a lot of other fermented foods like fermented milk, Shchi, etc.

Baking- Baking is very popular in Russia. It has been done since centuries. One of such dishes is Pierogies. Pierogies are traditional Russian baked goods that have remained largely unchanged since ancient times, with minimal outside influence. Originally, they were prepared only for holidays, as reflected in their name, which comes from the ancient Russian word pir, meaning "holiday feast." The dough was made with sour yeast, often referred to as “live” dough. Fillings typically consisted of a single ingredient, such as vegetables (cabbage, peas, carrots, radishes, potatoes, onion, sorrel), mushrooms (dried, boiled, fried, or pickled), grains with butter (usually rice), fish, meat, poultry (often chicken), cheese or eggs. It is baked for around 180 – 190 degrees Celsius for 20 – 25 minutes. Some popular combinations include onion and egg, cabbage and egg, onions and mushrooms, or meat or fish with rice and eggs. A variation called coulibiac, which featured two or more fillings, gained popularity in the early 1900s.

Future challenges and potential solutions- Russia's agri-food sector has made impressive strides—from overcoming chronic food shortages to becoming a leading global exporter of staples like wheat and buckwheat—yet it now faces several mid-term challenges that require innovative solutions. Key issues include a technological lag evidenced by volatile crop yields and a heavy reliance on imported breeding materials, a significant generational gap in agricultural sciences resulting from decades of underinvestment and outdated education systems, and sustainability problems such as soil degradation, ecological burdens, and high levels of food loss and waste. Moreover, the recent strategic shift from an import substitution to an export-oriented policy introduces risks like domestic market instability and reduced food availability, while the marginalization of rural areas leads to labour shortages and diminished competitiveness. To address these problems, experts suggest a multifaceted approach: increasing long-term investments in research and development through state-supported programs and improved mechanisms for intellectual property transfer; reforming agricultural education to bridge the gap between academic research and the practical needs of modern agribusiness; and establishing comprehensive national monitoring systems for soil and environmental quality to better manage natural resources. In addition, implementing targeted rural development initiatives—such as the State Program for Complex Rural Development—improving water and soil management practices, and adopting global best practices to reduce food loss (including revising taxation policies to facilitate charitable food transfers) are essential steps toward building a more innovative, sustainable, and competitive agricultural sector.

Indonesian Food Culture

Agriculture- The country of Indonesia is an island country located in East Asia. It is surrounded by Indian Ocean on one side and Pacific Ocean on another side. The country is situated in the tropical region and hence it has a lot of rain and sunshine. Due to this, 30 percent of Indonesian land is fertile and suitable for agriculture. Agriculture is major part of Indonesian economy giving a lot of jobs and revenue as well. Indonesia produces palm oil, natural rubber, cocoa, coffee, tea, rice, cloves and nutmeg like tropical spices.

Preservation techniques-

Pickling- Pickling was introduced to Indonesia through the influence of India due to its trade with east Asian countries. In Indonesia it is called as Acar (Similar to Aachar). However, this is made very differently compared to the Indian method. The base/brine of Acar is made by mixing sugar, vinegar, salt and water. The vegetables (typically carrot, cucumber, bird eye chilli) are then mixed in this brine. It is then stirred and put into an airtight container for 24-48 hours. Another way to make this is to boil water, vinegar, salt and sugar in a pot. The brine is then poured into a mixture of chopped vegetables and let cool down. This is typically a tangy and sweet pickle served as a side dish.

Fermentation- Fermentation is quite used in Indonesia as well. However, here it is used to preserve food and not as a cooking technique. One of the popular dishes is Bekasam. Bekasam is a traditional fermented fish product from South Sumatra, primarily made using seluang fish (*Rasboraargyrotaenia*). However, other freshwater fish such as common carp (*Cyprinuscarpio*), catfish (*Clariasbatrachus*), java barb *(Puntiusjavanicus*), tilapia (*Oreochromismossambicus*), and spotted gourami *(Trichogastertrichopterus*) can also be used. Additionally, some variations of bekasam have been made using milkfish (*Chanoschanos*) and Nile tilapia (*Oreochromisniloticus*).

Bekasam is produced through spontaneous fermentation without the addition of specific microorganisms. The process begins with eviscerating and rinsing the freshwater fish. If larger fish are used, they are split into a butterfly shape. The fish is then soaked in a brine solution containing 15–20% salt for 2–3 days at room temperature. This salting step is crucial as it lowers water activity and inhibits spoilage and growth of microorganisms. After soaking, the fish is drained and mixed with a carbohydrate source in a ratio of 3:4. Cooked rice and brown sugar are commonly added, providing an energy source for microbial growth. The salted fish and rice mixture is then placed into traditional clay or plastic jars and left to ferment at room temperature for 3–6 weeks. During fermentation, microbial enzymes break down carbohydrates into simple sugars, which react with amino acids from fish protein degradation in a process known as the Maillard reaction. This reaction contributes to the dark colour and unique flavour of bekasam. This process differentiates bekasam from bakasang, a similar fermented product from North Sulawesi and the Moluccas, which is made using fish viscera without added carbohydrates.

Cooking Techniques-

Steaming- Steaming is quite popular in Indonesia. In many dishes the main ingredient is covered in banana leaf and is steamed. Pepes is a traditional steamed fish dish prepared with a rich blend of spices and wrapped in a banana leaf. The package is secured with lidi—small nails made from the central rib of a coconut leaf—on both sides. It is then either steamed or grilled over charcoal, allowing the spices to infuse deeply into the fish while the banana leaf adds a distinct aroma. Although cooked together with the food, the banana leaf is non-edible and discarded after cooking. Another such dish is Nagasari. It is a traditional steamed cake considered a snack. Made from rice flour, coconut milk, and sugar, it is filled with banana slices and wrapped in banana leaves before steaming. Sometimes, pandan leaves are added to enhance its fragrance.

Future challenges and potential solutions: Indonesia's culinary heritage is a vital part of its cultural identity and economy, especially in tourism. However, globalization and modern lifestyle shifts threaten the survival of traditional recipes and food practices. To combat this, initiatives like SekolahSenimanPangan and the Nusa Indonesian Gastronomy Foundation are working to preserve and promote Indonesia's diverse food traditions.

SekolahSenimanPangan, founded by HeliantiHilman of Javara Indonesia, trains rural entrepreneurs—especially women, young, and indigenous people—to turn traditional farming and food craftsmanship into sustainable businesses. By adapting its training modules to various regional and demographic backgrounds, the school has empowered over 3,000 alumni across Indonesia. Their programs link local biodiversity and culinary heritage to modern market strategies, ensuring that traditional food remains relevant in contemporary society.

Similarly, the Nusa Indonesian Gastronomy Foundation, led by Meilati Batubara and Chef Ragil Imam Wibowo, is dedicated to documenting and safeguarding near-extinct traditional recipes. Their project, Pusaka Rasa Nusantara, funded by the U.S. Embassy's Ambassadors Fund for Cultural Preservation, involved extensive field research across Indonesia. This effort resulted in a four-part book series capturing Indonesia's culinary history, cooking techniques, and traditional dishes. The foundation emphasizes the importance of appreciating and marketing Indonesia's culinary wealth to ensure its survival for future generations.

Both initiatives highlight the need to preserve Indonesia's food traditions not just as a cultural legacy but also as a sustainable economic asset. By supporting local farmers, food artisans, and researchers, these efforts ensure that Indonesia's rich and diverse culinary heritage continues to thrive in a rapidly modernizing world.

Additionally, the share agriculture sector of Indonesia to its GDP has been decreasing as years pass by. This is due to modern youth shifting towards industrialization. Younger people are more likely to leave their rural origins and opt for jobs in manufacturing and services rather than agriculture. This trend has led to an aging agricultural workforce, with the proportion of workers aged 60 and above increasing considerably over recent decades. The aging workforce impacts agricultural productivity and technology adoption, partly due to the low wages in the sector, which were only 26.16% of the national average in 2019. To counter these challenges, government and private sectors must implement incentives and support programs—such as farmer entrepreneurship and capital provisions—to attract younger workers to agriculture, improve wages, enhance productivity, and promote the diversification and modernization of agricultural practices.

Conclusion

By studying the food cultures of India, Japan, Russia and Indonesia we can conclude that it is the climate of the specific region that affects the food culture most. The climate of a nation/region governs the availability of crops and also availability of non-vegetarian options. This climate also gives various challenges throughout the year which gives a desperate need of food preservation. Using science, various preservation techniques were developed and are still used today. The climate also gives rise to various cooking techniques (Beppu village case). Cooking technique needs to know science of heating and the best example is baking which needs proportion, appropriate time and appropriate heat as well. From all this we can conclude that Science does play an important role in food culture by directly involving in it or indirectly through weather. Another major thing that can be noted down from here is lack of modern youth in agriculture sector. Modern youth are keen to work in industry rather than working in farm or research related to farming. This has resulted in lack of growth in agriculture sector as a whole and it could cause major food shortage in future due to increase in global population and increase of old age people involved in farming sector. Furthermore, while researching it is found that a lot of traditional dishes are not easily found on the internet. Despite the growth of the internet and various knowledge being updated regularly, many cuisines and traditional dishes are not found easily. It is a major concern because a dish or cuisine not only carries a simple formula but it carries centuries of knowledge and stories through it. It is a record of human civilization as a whole and needs to be preserved.

Limitation

Due to study of various cultures, the article fails to study all the food cultures in depth. Along with it, the article also couldn't explore more cultures. It also couldn't talk about various dishes. It also fails to mention how trade since ancient times shaped the food cultures in detail. However, the article is still a good start to explore food cultures across the world.

References

2. From map released department of Animal Husbandry, Dairying and Fisheries 2018-19
3. *Traditional and modern methods of making Indian Pickles* The little farm
4. *The microbiological quality of various foods dried by applying different drying methods: a review*Duygu Alp 1,✉, ÖzcanBulantekin 1 NLM)
5. *Fermented Cuisine of India; A Gastronomic Perspective by Yogesh Singh* World Gastronomy Institute
6. NITI Ayog- *Presidential Address Transforming Agriculture for Challenges of 21st Century*
7. USDA- *An overview of Japan agriculture production*
8. *The flavors of ages: Japanese pickles* Written by Team MUSUBI
9. Ministry of Agriculture, Foresty and Fisheries Japan- *Salted foods*
10. *Nimono- Japan's flavorful braised dishes*
11. *Cooking technique- Japanese Cuisine* by wordpress
12. *Hot spring cuisine: How Japan and other countries cook with*steam by mint
13. Fao.org – *World Agriculture Watch (Japan)*

14. *IMPRESSIONS OF RUSSIAN DAIRY FARMING* 1 R. E. HODaSO~ AND E. E. I-~EIZER Animal Husbandry Research Division, USDA, Beltsville, Maryland and Department of Dairy Husbandry, University of Wisconsin, Madison)
15. *Let's pickle it! Russian most popular way to preserve food for winter* by Miranda Colombo
16. *Russian Food: Canning worth its salt*
17. *Kvass: A Traditional Russian Fermented Beverage* San Lorenzo Valley Post
18. *Russian Baked Goods*- Advantour
19. Russian Journal of Economics- *Challenges for the development of the Russian agricultural sector in the mid-term* by Eugenia Serova
20. Wikipedia- *Agriculture in Indonesia*
21. *AcarTimun (Indonesian Pickled Cucumber)* by Caroline cooking
22. *Exploring bekasam an indigenous fermented fish product of Indonesia: original South Sumatra region*- Journal of Ethnic Foods
23. *Indonesian food culture mapping: a starter contribution to promote Indonesian culinary tourism*- Wijaya Journal of Ethnic Foods
24. *Preserving Traditional Indian food*- Jakarta Now
25. *Challenge of Agriculture Development in Indonesia: Rural Youth Mobility and Aging Workers in Agriculture Sector* by NgadiNgadi ,Andy Ahmad Zaelany, Ade Latifa, DewiHarfina, Devi Asiati, BayuSetiawan ,FitranitaIbnuTriyonoTriyono and ZantermanRajagukguk - MDPI
26. *Image source:* IMD.
27. Source: USDA Foreign Agriculture services and fao.org (Russian Federation)

Trade and Cultural Exchange

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Abstract

Trade is not just about goods—it is about people, ideas, and traditions. Throughout history, trade has shaped cultures, connected distant civilizations and fostered a shared human experience. However, while trade promotes cultural exchange, it can also threaten indigenous traditions, leading to cultural erosion, exploitation, and economic inequality. This article explores both the positive and negative effects of trade through historical and modern examples, including the Silk Road, Indian Ocean trade, digital trade, and the impact of globalization on indigenous cultures. Ultimately, trade has been a powerful force in shaping the world, but it must be managed responsibly to protect cultural diversity.

Key Words

[Trade, Cultural Exchange, Indigenous Cultures, Globalization, Cultural Erosion, Traditional Practices**]**

Introduction

Trade has always been a major force in shaping civilizations. It has allowed cultures to interact, exchange ideas, and grow. However, trade is not always beneficial—when done irresponsibly, it can lead to cultural exploitation, loss of traditional knowledge, and economic inequality. This article explores the deep relationship between trade and culture by addressing key questions:

- How has trade historically influenced cultural exchange?
- What role has trade played in shaping food, language, and traditions?
- How has modern trade impacted indigenous communities and traditional practices?

By examining these aspects, we can better understand the complexities of trade and cultural exchange

Findings/Results:

<u>The Silk Road: A Cultural Bridge Between Civilizations</u>

The Silk Road was one of the earliest and most significant trade networks, connecting Asia, Europe, and the Middle East. It served as a bridge not only for goods like silk and spices but also for the exchange of knowledge, culture, and religion. For instance, Buddhism travelled from India to China, evolving as it interacted with different societies along the way. Similarly, artistic techniques and styles blended across cultures, creating new forms of art that reflected the fusion of ideas. The Silk Road demonstrates how trade facilitates cultural interactions that shaped civilizations across continents.

The Indian Ocean Trade: A Crossroad of Cultures

The Indian Ocean trade network was another key player in facilitating cultural exchanges, linking East Africa, Arabia, India, and Southeast Asia. Trade routes in this region enabled the movement of ideas, religions, and languages. For example, the spread of Islam through merchant activity in coastal cities of East Africa and India helped create cultural exchanges between Arabic and local languages. The Swahili language, a blend of Bantu and Arabic, serves as a testament to the influence of trade on linguistic and cultural identity. The Indian Ocean trade routes also brought diverse religious communities together, fostering an environment of cultural tolerance and mutual respect.

Digital Trade: Empowering Global Artisans and Preserving Heritage

In the contemporary world, digital platforms like Etsy and Amazon Handmade have revolutionized the way artisans connect with global markets. These platforms allow indigenous and local artisans to share their cultural heritage with the world while also receiving fair compensation. For example, Peruvian weavers can now sell their traditional textiles globally, keeping ancient crafts alive and thriving. Additionally, global art platforms like the Venice Biennale allow artists from marginalized communities to showcase their work, fostering global appreciation for diverse cultural expressions. Digital trade represents a modern form of cultural exchange that helps preserve cultural practices while broadening access to international markets.

The Impact of Globalization on Indigenous Cultures

While trade has led to profound cultural exchanges, globalization and the expansion of trade can also have detrimental effects on indigenous communities. In places like the Amazon rainforest, the global demand for timber, palm oil, and soy has led to the destruction of ecosystems and displacement of indigenous peoples. The impact of trade on indigenous land has disrupted their way of life and undermined their role as stewards of biodiversity. Furthermore, the commercialization and misappropriation of indigenous art, such as the use of Navajo patterns in mass-produced goods, deprives indigenous creators of their rightful cultural and economic recognition. Additionally, the introduction of cheap, mass-produced goods has eroded traditional practices, such as weaving, leading to a loss of cultural heritage.

Case Studies

Challenges Faced by Indigenous Cultures Due to Trade

- **The Arctic Region: Cultural Displacement Due to Resource Extraction**
  In the Arctic, indigenous communities such as the Inuit are facing growing threats due to increased interest in natural resource extraction and shipping routes made accessible by melting ice. Oil drilling, mining, and commercial fishing have not only damaged delicate ecosystems but also disrupted the traditional lifestyles of Arctic peoples. Activities like hunting and fishing, essential to their cultural identity and survival, are becoming increasingly difficult due to environmental degradation and industrial interference. As global trade targets the untapped resources of the Arctic, indigenous communities are witnessing the erosion of their ancestral connections to the land and sea.

- **Misappropriation of Cultural Symbols**
  Trade can also lead to cultural exploitation, as seen in the commercialization of indigenous art. For example, Navajo designs have been mass-produced on textiles sold worldwide, often without permission or fair compensation for Navajo artists. When sacred cultural symbols are used without respect, they lose their original meaning and become just another product in the global market. This unfair practice reduces indigenous identity to a fashion trend, stripping communities of their cultural and economic rights.

- **Decline of Traditional Practice**
  In many indigenous communities, globalization and mass production have displaced traditional crafts. In the Pacific Islands, cheap imported plastic mats have largely replaced handcrafted woven mats, threatening the survival of an ancient art form. Similarly, traditional diets have been disrupted by processed foods, leading to serious health issues like obesity and diabetes. When trade introduces cheaper, mass-produced alternatives, local traditions often suffer, leading to cultural disconnection and loss of identity.

Pictures

Fig.1: The Silk Road

Fig.2: Ocean Trade Route

Fig.3: Craft and beauty of Navajo

CONCLUSION

Trade has always been a story of human connection. From the Silk Road to digital marketplaces, it has shaped civilizations, fostered understanding, and enriched cultures. However, trade also has a darker side—it can exploit indigenous traditions, erode cultural heritage, and create economic inequalities. As we move forward in an increasingly globalized world, it is crucial to ensure that trade does not come at the cost of cultural preservation. Responsible trade policies, ethical business practices, and respect for indigenous rights can help balance economic growth with cultural sustainability.

APPLICATIONS

- Governments can implement fair trade policies that protect indigenous communities and ensure they benefit from their cultural knowledge.
- Businesses can support ethical sourcing and fair compensation for artisans to preserve traditional crafts.
- Consumers can make conscious choices by purchasing directly from indigenous creators rather than mass-produced replicas.

LIMITATIONS

This article limits itself to cover the aforementioned points. However, it creates a pathway for future researchers to cover:

• The full economic impact of trade on different regions.

• The role of government policies in shaping cultural exchange through trade.

• Detailed case studies on specific countries and their trade histories. References

REFERENCES

1. "The Silk Roads: A New History of the World" by Peter Franko pan
2. Academic Research on Digital Trade & Cultural Exchange
3. Globalization and Its Impact on Indigenous Cultures: Written by Janet K. Viader
4. The Impact of Global Trade on Cultural Exchange Dr. Hichem Karoui

Rethinking Huntington's “Clash of Civilizations”

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Abstract

Are global conflicts truly driven by **civilisational divides**, or are they the result of **power struggles, economic rivalries, and strategic calculations**? Samuel P. Huntington’s *Clash of Civilisations* (1993) argued that the post-Cold War world would be shaped by deep-seated **cultural and religious identities**, with conflicts emerging along **civilisational fault lines**—West vs. Islam, the West vs. China, and Orthodox Russia vs. Western Europe. But three decades later, does this framework still hold?

This paper critically re-examines Huntington’s thesis in light of today’s **geopolitical realities**, dissecting major conflicts such as the **Russia-Ukraine war, U.S.-China tensions, Bharat-Pakistan rivalry, and the shifting balance of power in the Middle East**. While some of Huntington’s predictions—such as the **rise of China** and **growing resistance to Western hegemony**—have materialised, his rigid **civilisational model fails to explain the complexities of modern geopolitics**.

Consider Russia’s war in Ukraine: Huntington’s theory would suggest a **united Orthodox front** against the West, yet Ukraine, an Orthodox nation, seeks European integration, while other Orthodox states like Greece and Bulgaria oppose Russia’s aggression. Similarly, the **Bharat-Pakistan conflict**, often framed as a **Hindu vs. Muslim clash**, is as much about **territorial disputes, political leadership, and strategic alliances** as it is about religion. Meanwhile, the **U.S.-China rivalry** is less about a clash of civilisations and more about **economic supremacy, technology warfare, and military dominance** in the Indo-Pacific.

Moreover, Huntington’s **"kin-country syndrome"**—which suggests nations will support their civilisational allies—does not hold in a world where **pragmatism trumps cultural loyalty**. The Middle East remains divided by **Sunni-Shia rivalries**, while Western powers frequently **disagree on foreign policy**, as seen in the transatlantic rift over NATO and global trade policies. Huntington also **underestimated the power of nationalism**, with nations like Ukraine, Bharat, and Turkey pursuing **independent** foreign policies that defy strict civilisational alignments.

This study argues that **power politics, economic interdependence, and technological competition** drive today's conflicts far more than civilisational identity. The 21st-century world is no longer shaped by a **West vs. Rest** binary but by a **multipolar order where alliances shift based on strategic interests rather than shared culture**. By einterpreting Huntington's framework through a **realist-pragmatist lens**, this paper demonstrates that while civilisational identity plays a role, it is **just one piece of a much larger geopolitical puzzle**.

Keywords: clash of civilisations, geopolitics, multipolarity, cultural identity, global alliances, realist theory.

Introduction

In February 2022, when Russian tanks rolled into Ukraine, many analysts framed the conflict as a geopolitical struggle between a resurgent Moscow and the Western-led order. However, Samuel P. Huntington's *Clash of Civilisations* theory would categorise it as an Orthodox vs. Western civilisational clash. But does this civilisational framework truly explain modern conflicts?

Published in *Foreign Affairs* in 1993 and later expanded into a book (1996), Huntington's thesis argued that **civilisational identities—rooted in religion, culture, and history—would be the primary drivers of global conflicts** in the post-Cold War world. Moving away from ideological battles like capitalism vs. communism, he predicted that **fault lines between civilisations** would shape future geopolitical rivalries. According to him, the world was divided into eight major civilisations: Western, Sinic, Islamic, Hindu, Orthodox, Latin American, Japanese, and African (later added, though less emphasised).

While Huntington's framework gained significant momentum, it also attracted widespread criticism for **oversimplifying global conflicts** and ignoring key drivers like economic globalisation, national interests, and technological shifts. Today, as the world struggles with **multipolarity, intra-civilisational conflicts, and economic interdependence**, a fresh evaluation of Huntington's predictions is necessary.

This paper critically examines *The Clash of Civilisations* using real-world case studies, demonstrating that modern conflicts are **more complex than Huntington's rigid civilisational model suggests**. The central research questions are: To what extent do today's global conflicts align with Huntington's predictions? What factors (economic, political, technological) challenge the civilisational framework? How do modern global alliances contradict Huntington's theory?

Before delving into these critiques, it is essential to understand the **key concepts Huntington proposed**. One of the fundamental ideas is the concept of **fault lines**, which Huntington argued functioned like tectonic plates—wherever civilisations meet, friction follows.

He identified fault lines along the Islamic-Christian divide (Middle East, Balkans, parts of Africa), Orthodox vs. Western clashes (Russia vs. NATO), Sinic vs. Western tensions (U.S.-China rivalry), and Hindu-Islamic divides (Bharat-Pakistan). However, many **modern conflicts occur within civilisations rather than between them**, challenging Huntington's assumption that cultural and religious identities are the main sources of conflict.

Another key concept is **civilisation rallying, also called the kin-country syndrome**, which suggests that civilisational ties would override national interests, leading nations to align .

based on cultural-religious affinity. Huntington predicted that Islamic nations would support Muslim groups in conflicts, Russia would rally Orthodox nations, and China would unite Sinic nations against Western hegemony. However, contemporary realities challenge this idea—Islamic nations have geopolitical rivalries (e.g., Saudi Arabia vs. Iran), China maintains strong ties with non-Sinic nations (e.g., Pakistan, Gulf nations, African countries), and Russia's invasion of Ukraine contradicts this theory, as Ukraine is an Orthodox nation opposed by other Orthodox states like Greece and Bulgaria.

Huntington also introduced the concept of **torn countries**, or nations that are divided between two civilisational identities and struggle to choose a geopolitical orientation. He cited Turkey (straddling Islam and the West), Mexico (culturally Latin American but economically tied to the U.S.), and Russia (historically Orthodox but seeking Westernisation under certain leaders). Yet, modern examples, such as Turkey's independent foreign policy and Ukraine's split between its Orthodox roots and European aspirations, demonstrate that **many nations today pursue pragmatic, multi-aligned strategies rather than fitting into a singlecivilisational box**.

One of Huntington's most contested ideas is the **West vs. the Rest binary**, which argued that Western civilisation would face opposition from non-Western blocs, particularly the Islamic, Sinic, and Orthodox worlds. He predicted confrontations like the West vs. Islam (terrorism, U.S. interventions), the West vs. China (geopolitical and economic rivalries), and the West vs. Russia (a resurgent Moscow challenging NATO). However, this binary framework is inadequate today—China's rise is more about economic strategy than conflict; the Middle East is not monolithic (many Islamic nations engage with the U.S.); and multipolarity has replaced the West vs. Rest structure as nations prioritise **independent** strategic paths.

This paper critically analyses Huntington's thesis using a **multipolar framework**, arguing that **conflicts in the 21st century are more about power, economy, and technology than civilisational identity**. By examining modern case studies—including the **Russia-Ukraine war, U.S.-China tensions, and shifting global alliances**—this research aims to demonstrate that

1. Many global conflicts occur within civilisations rather than between them.
2. Economic and technological factors frequently override cultural-religious ties.
3. Global alliances do not follow Huntington's civilisational logic—nations prioritise self-interest over kin-country loyalties.

While cultural and civilisational factors play a role, they should be seen as **one variable among many** rather than the dominant framework for explaining global conflicts. This paper argues that a **realistic-pragmatist approach**, considering **power struggles, trade, and technological supremacy**, provides a **more accurate geopolitical analysis** than Huntington's **civilisational determinism**.

Huntington's Key Predictions and Their Theoretical Basis:

Samuel P. Huntington's *The Clash of Civilisations* was a response to the post-1945 debate about the nature of global conflicts. While some scholars, like Francis Fukuyama, argued that liberal democracy had triumphed and the world was headed toward ideological convergence, Huntington rejected this optimism. Instead, he predicted that cultural and religious identities would become the dominant forces shaping international relations. He argued that civilisations, rather than nation-states or political ideologies, would be the primary actors in the global order. This marked a significant departure from traditional realist and liberal schools of thought, which focused on state-centric power politics or economic interdependence.

Huntington identified eight major civilisations: Western, Sinic (Chinese), Islamic, Hindu, Orthodox, Japanese, Latin American, and African (though he placed less emphasis on the last two). He theorised that civilisational identities would become the basis for future conflicts, as differences in religion, culture, and historical experiences were far more deeply rooted than ideological divides. According to him, Western civilisation, which had dominated global affairs for centuries, would increasingly face resistance from non-Western civilisations seeking to assert their own identities and interests. In this view, the rise of China and the resurgence of Islam were not merely political or economic developments but part of a broader civilisational shift.

A central idea in Huntington's argument was the concept of "fault lines," the geopolitical equivalent of tectonic plates where civilisations meet and friction occurs. He argued that major conflict zones in the post-Cold War world would emerge along these civilisational fault lines. Some of the examples he highlighted included the Islamic-Christian divide in the Balkans, Middle East, and parts of Africa, the tensions between Orthodox Russia and the Western world, and the strategic competition between Sinic civilisation (China) and the West. His framework suggested that these conflicts would be persistent and deeply ingrained, as they were rooted in fundamental civilisational differences rather than temporary political disputes.

Another key aspect of Huntington's theory was the idea of civilisational "rallying," sometimes referred to as the kin-country syndrome. He suggested that in conflicts between civilisations, countries sharing the same civilisational identity would naturally align with each other. For example, he predicted that in a major confrontation between Islam and the West, Islamic nations would support Muslim groups, and Western nations would unite against them. Similarly, he argued that Orthodox countries would rally around Russia in its conflicts with the West, and China would work to strengthen alliances within the Sinic world to counterbalance Western influence. This assumption positioned civilisational loyalty above traditional alliances based on strategic interests, economic partnerships, or historical ties.

Huntington's thesis also introduced the idea of "torn countries", or nations caught between two civilisational identities, leading to internal and external struggles over their geopolitical orientation. He cited Turkey as an example, arguing that while its elite sought integration with the West, its deep-rooted Islamic identity created tensions, making full Westernisation unlikely.

Similarly, he pointed to Russia as a country that oscillated between its Orthodox roots and its attempts at Westernisation under different leaders. Another example he highlighted was Mexico, which, despite being economically tied to the U.S., had a Latin American cultural identity that prevented it from fully integrating into Western civilisation. These torn countries, according to Huntington, would struggle to find their place in the global order, often leading to domestic polarisation and external diplomatic challenges.

A significant part of Huntington's argument revolved around the idea of the "West vs. the Rest" paradigm, where he predicted that Western civilisation would increasingly find itself in opposition to other major civilisational blocs. He identified three primary challengers: the Islamic world, which he saw as ideologically and historically opposed to Western values; the Sinic world, led by China, which would seek to establish an alternative global order; and the Orthodox world, particularly Russia, which he expected to challenge Western expansion in Eastern Europe and beyond. He suggested that the post-Cold War order would not lead to universal Western dominance but rather a multipolar world where civilisations with distinct values and interests would push back against Western hegemony.

While Huntington's predictions gained traction in Western strategic circles, they also faced strong criticism for oversimplifying global politics. Many scholars argued that his civilisational model underestimated the role of economic globalisation, which has made interdependence a key factor in international relations. For instance, despite U.S.-China rivalry, economic ties between the two powers remain deeply embedded, challenging Huntington's assumption that civilisations would operate as unified blocs. Similarly, intra-civilisational conflicts, such as the Sunni-Shia divide in the Islamic world or European tensions within the West, demonstrate that civilisational identity is not always the primary driver of geopolitical competition.

Furthermore, Huntington's notion of civilisational unity often fails to account for the complex nature of alliances and rivalries. For example, in the Islamic world, Saudi Arabia and Iran are bitter rivals despite sharing a civilisational identity. Within the Sinic sphere, many Asian nations—such as Bharat, Japan, and Vietnam—actively counterbalance China's influence rather than aligning with it. Even within the West, divisions between the U.S. and Europe over issues like military intervention, trade policies, and diplomatic engagement highlight that civilisational identity does not automatically translate into geopolitical unity.

Another major critique of Huntington's thesis is that it neglects the role of nationalism, which often supersedes civilisational ties. National identity remains one of the most powerful forces in global politics, often dictating a country's alliances and strategic decisions more than broad civilisational affiliations. For instance, Ukraine's resistance against Russia is not merely an Orthodox vs. Western conflict but a nationalist struggle for sovereignty and self-determination. Similarly, Bharat's foreign policy is driven by strategic autonomy rather than strict civilisational alignment, as evidenced by its engagement with both the U.S. and Russia, despite their geopolitical rivalry.

Despite these limitations, Huntington's work remains influential because it introduced a cultural dimension to international relations that had been largely ignored in mainstream political science. His emphasis on identity, history, and religious factors in shaping global politics has influenced policymakers, particularly in the U.S., where his ideas were often referenced in post-9/11 foreign policy discussions. While his model may not fully explain modern geopolitical realities, it provides a lens through which cultural and ideological divisions can be analysed alongside traditional power politics.

Ultimately, Huntington's *Clash of Civilisations* presents a provocative but incomplete framework for understanding global conflicts. While his identification of civilisational fault lines and rising non-Western powers remains relevant, the modern world's interconnected nature challenges his rigid categorisation. Economic globalisation, technological shifts, and pragmatic alliances play a far more significant role in shaping international relations than Huntington acknowledged. In the face of growing multipolarity, his theory serves as a useful reference point but not an absolute blueprint for global affairs.

The West vs. Islam: Did Huntington Predict Global Terrorism & Middle East Conflicts?

Samuel P. Huntington predicted that the Islamic world would remain in opposition to the West, driven by ideological, political, and cultural differences. He argued that Islamic identity would consolidate as a reaction to Western dominance, leading to an increase in religious extremism and terrorism. According to his thesis, the post-Cold War era would witness heightened conflicts between Western powers and Islamic nations, primarily due to fundamental differences in values, governance models, and historical grievances. He also anticipated that Muslim-majority countries would align in opposition to Western influence, resulting in prolonged geopolitical struggles.

Many of Huntington's predictions appear to have materialised, particularly with the rise of political Islam and transnational terrorist networks. The emergence of groups such as Al-Qaeda, ISIS, Boko Haram, and the Taliban aligns with his assertion that Islamic extremism would challenge Western liberalism. The 9/11 attacks and subsequent U.S.-led interventions in Afghanistan (2001) and Iraq (2003) reinforced the narrative of an ongoingcivilisational clash. The War on Terror, framed as a battle between Western democracy and radical Islam, further cemented the perception of an ideological struggle between the two civilisations. Additionally, NATO's intervention in Libya (2011) and continued drone warfare in countries like Yemen, Pakistan, and Somalia highlight the West's persistent military engagement in the Islamic world, which fits Huntington's framework of civilisational fault lines.

Beyond military conflicts, cultural tensions between the West and Islam have also intensified. The rise of Islamophobia in Europe and North America, reflected in policies like Donald Trump's 2017 "Muslim Ban" and increased surveillance of Muslim communities suggest a growing perception of Islam as a civilisational threat. Similarly, the rise of far-right movements across Europe, often centred around anti-immigrant and anti-Islam rhetoric, mirrors Huntington's vision of deepening cultural divisions. Likewise, in the Islamic world, anti-Western sentiment has been reinforced by military interventions, economic sanctions, and perceptions of Western double standards in conflicts like Palestine-Israel. These developments lend credibility to Huntington's thesis that ideological and religious identities would shape post-Cold War conflicts more than political ideology or state interests.

However, Huntington's predictions fail to account for several key factors that complicate the West-Islam dynamic. One major oversight is the depth of intra-Islamic conflicts, particularly the Sunni-Shia divide, which has been a major driver of instability in the Middle East. The rivalry between Iran (Shia-majority) and Saudi Arabia (Sunni-majority) has influenced conflicts in Yemen, Syria, and Iraq, demonstrating that sectarian divisions often override civilisational unity. The Yemeni Civil War and the Syrian conflict, for instance, have been largely sectarian rather than direct battles between Islam and the West. This fragmentation within the Islamic world contradicts Huntington's assumption that Muslim-majority countries would form a unified front against Western influence.

Additionally, Huntington underestimated the extent of Western-Islamic cooperation. Despite ideological differences, many Muslim-majority states maintain strong economic and military partnerships with Western nations. Saudi Arabia, a key U.S. ally, continues to have deep security and economic ties with the West, while Turkey, despite tensions, remains a NATO member.

The Abraham Accords (2020), which saw the normalisation of relations between Israel and several Arab states, further challenge Huntington's notion of an inevitable and persistent clash. Economic diplomacy often overrides religious and cultural divisions, as seen in countries like the UAE, Indonesia, and Malaysia, which engage with both Western and non-Western actors based on strategic interests rather than civilisational identity.

The Arab Spring (2011–2013) further highlights the complexity of Islamic politics, as these uprisings were driven more by demands for democracy, economic justice, and governance reforms than religious identity. Many of these movements challenged authoritarian regimes rather than engaging in direct confrontation with the West, demonstrating that internal political struggles within Islamic nations are often more significant than civilisational clashes. Furthermore, the evolving nature of global conflicts, including cyberwarfare and information warfare, has blurred the lines of traditional civilisational battles. The Iran-U.S. cyber conflict, for instance, is not a direct cultural or religious clash but a strategic battle over technological dominance and geopolitical influence.

Overall, while Huntington accurately predicted Islamic resistance to Western influence and the rise of religious extremism, his thesis fails to fully explain the complexities of contemporary geopolitics. The intra-Islamic rivalries, pragmatic economic partnerships, and domestic political struggles within Muslim-majority nations challenge the notion of a rigid civilisational conflict. The world today is shaped by a mix of ideological, economic, and technological factors that transcend Huntington's binary model, making his predictions only partially relevant in the modern geopolitical landscape.

The West vs. China (Sinic Civilisation): The New Cold War?

Huntington predicted that China's rise would lead to a significant geopolitical confrontation with the West. He argued that China, rooted in Confucian political values, would reject Western liberalism and seek to establish an alternative global order. He anticipated that as China's economic and military power grew, it would increasingly challenge Western dominance, particularly that of the United States. According to Huntington, the post-Cold War world would see China positioning itself as the leader of a Sinic civilisation, countering Western influence through economic expansion, military buildup, and strategic alliances.

Many of Huntington's predictions about China's rise have proven to be remarkably accurate. Over the past three decades, China has transformed into a global superpower with unparalleled economic growth and technological advancements. Companies like Huawei, Tencent, and ByteDance (TikTok's parent company) symbolise China's dominance in the digital and AI sectors, directly competing with Western firms. Additionally, China's rapid military modernisation, including its expanding navy and hypersonic missile capabilities, aligns with Huntington's forecast that China would seek to assert its influence beyond its borders. The increasing tensions between the U.S. and China, particularly in the Indo-Pacific region, reinforce the idea of a growing rivalry between these two civilisations. The U.S.-China trade war (2018-2021) further demonstrated this strategic competition, with Washington imposing tariffs and restricting Chinese tech firms over national security concerns. The escalating dispute over Taiwan, with China intensifying military drills near the island and the U.S. strengthening its support for Taipei, exemplifies the geopolitical battle Huntington foresaw.

China's Belt and Road Initiative (BRI) serves as another validation of Huntington's thesis. Through massive infrastructure projects across Africa, Asia, and Latin America, China has built an alternative economic network that challenges the dominance of Western-led institutions like the IMF and the World Bank.

By providing loans and investments to developing countries, Beijing has gained strategic leverage, reinforcing its influence in regions traditionally dominated by the West. The BRI exemplifies China's broader ambition to reshape global power structures in its favour, an approach Huntington predicted. Additionally, China has actively sought to counter Western values and influence through its own governance model, promoting state-controlled capitalism and authoritarianism as an alternative to Western liberal democracy.

However, despite Huntington's prescient observations, several factors complicate the narrative of a straightforward civilisational clash. One of the most significant oversights in his thesis is the extent of economic interdependence between China and the West. Unlike the Cold War rivalry between the U.S. and the Soviet Union, where economic ties were minimal, China and the West are deeply integrated. Major American corporations like Apple, Tesla, and Microsoft rely heavily on Chinese supply chains and markets, making a complete decoupling between the two economies highly unlikely. Even as the U.S. imposes restrictions on Chinese tech firms, companies on both sides continue to seek ways to maintain economic cooperation. This level of interdependence acts as a stabilising force, preventing an outright economic or military confrontation between China and the West.

Another critical limitation of Huntington's model is its binary nature, which does not fully account for the multipolarity of today's global order. While the U.S.-China rivalry dominates much of global geopolitics, other major players such as Bharat, Russia, and the European Union add layers of complexity to international relations. Bharat, for instance, maintains strategic ties with both the U.S. and China while pursuing its independent foreign policy. Similarly, Russia's growing alignment with China challenges Western influence, but Moscow's historical distrust of Beijing prevents a seamless civilisational alliance. These factors indicate that the geopolitical landscape is far more intricate than Huntington's framework suggests.

Technological competition has also emerged as a defining feature of the U.S.-China rivalry, an aspect Huntington did not fully anticipate. The struggle over 5G dominance, semiconductor supply chains, and artificial intelligence highlights that the modern battlefield is not just military or ideological but also technological. The U.S. has imposed restrictions on Chinese tech firms like Huawei and TikTok, citing security concerns, while China has pushed for technological self-sufficiency to reduce its reliance on Western innovations. Unlike Huntington's model of cultural and ideological struggle, these conflicts are driven more by national security concerns and economic competition than by purely civilisational factors.

Despite mounting tensions, an outright military conflict between the United States and China remains unlikely. The Taiwan issue is a major flashpoint, but nuclear deterrence and the economic costs of war act as significant barriers to escalation. Additionally, China's strategic approach has been largely economic and diplomatic rather than militaristic, with Beijing preferring to expand its influence through trade, investments, and regional partnerships rather than direct military confrontation. The U.S. and the European Union also face internal challenges, including political polarisation, economic instability, and the weakening of transatlantic alliances post-Brexit, which complicate their ability to present a unified front against China.

Overall, while Huntington was correct in predicting the rise of China as a formidable challenger to Western dominance, his model oversimplifies the complexities of global power dynamics. Economic interdependence, technological competition, and multipolar world order have altered the nature of the U.S.-China rivalry, making it more about strategic competition than an inevitable civilisational clash.

Bharat-Pakistan: Religious Conflict or Strategic Rivalry?

Huntington framed the Bharat-Pakistan conflict as a civilisational struggle between Hinduism and Islam, arguing that religious identity would be the primary factor driving hostility between the two nations.

According to his thesis, the deep-rooted religious differences between the two civilisations would perpetuate tensions, making reconciliation difficult. He suggested that the conflict over

Kashmir and broader geopolitical tensions would persist due to this fundamental civilisational divide, with both nations viewing each other as existential threats.

To an extent, Huntington's prediction holds true as religious nationalism continues to shape the political landscape in both Bharat and Pakistan. The rise of Hindutva ideology in Bharat has led to a stronger assertion of Hindu identity in domestic and foreign policy, reinforcing the perception of a civilisational struggle. On the other hand, Islamic radicalisation in Pakistan, fuelled by both state and non-state actors, has contributed to cross-border terrorism and religious extremism. Events such as the 2019 revocation of Article 370, which removed the special status of Jammu and Kashmir, have further deepened the divide, with Pakistan using religious rhetoric to mobilise opposition. Repeated instances of cross-border terrorism, including attacks in Pulwama (2019) and Uri (2016), highlight how ideological narratives continue to fuel hostilities. The Kashmir dispute remains central to the conflict. with frequent military escalations, diplomatic standoffs, and proxy warfare ensuring that tensions never fully subside.

However, Huntington's thesis oversimplifies the nature of the Bharat-Pakistan rivalry by reducing it to a religious clash, ignoring the broader strategic, economic, and geopolitical dimensions. One of the key aspects he overlooked is Bharat's evolving foreign policy priorities. Unlike in the past, Bharat no longer views Pakistan as its primary strategic concern. Instead, it has shifted focus towards emerging as a global power, engaging with major international alliances such as the Quad (U.S., Japan, Australia, Bharat), BRICS, and Indo-Pacific partnerships. This broader geopolitical outlook has diminished Bharat's Pakistan-centric stance, making the conflict more about regional strategy than a purely civilisational struggle.

Another major factor Huntington underestimated is Pakistan's internal instability. Pakistan's economic crises, political turbulence, and military dominance have significantly influenced its foreign policy decisions. The country's struggling economy, marked by inflation, debt crises, and reliance on IMF bailouts, often dictates its approach to Bharat. Similarly, political instability—whether through frequent changes in civilian governments or military interference—prevents Pakistan from maintaining a consistent or long-term strategic vision. Rather than being solely driven by religious ideology, Pakistan's foreign policy is often a reflection of its internal chaos, with the military establishment using Bharat as a scapegoat to consolidate power domestically.

Additionally, the China-Pakistan strategic partnership has reshaped the nature of the rivalry. The China-Pakistan Economic Corridor (CPEC), part of Beijing's Belt and Road Initiative, has strengthened ties between the two nations, introducing a new power dynamic into the equation. China's growing influence in the region means that Bharat-Pakistan tensions are no longer bilateral; they are now intertwined with larger geopolitical considerations. Bharat's opposition to CPEC, which runs through Pakistan-occupied Kashmir, is not just about territorial sovereignty but also about countering China's regional ambitions. This strategic dimension complicates Huntington's civilisational framework, as the rivalry is no longer solely defined by religious identity but by global power struggles involving major international actors.

While religious nationalism undoubtedly plays a role in sustaining Bharat-Pakistan tensions, the conflict is far more complex than Huntington predicted. Strategic interests, economic considerations, and regional power dynamics are equally, if not more, influential in shaping relations between the two nations. Bharat's global aspirations, Pakistan's internal crises, and the growing role of China have all contributed to shifting the nature of the rivalry beyond a simplistic civilisational clash.

Russia vs. the West: A Clash of Civilisations or a Power Struggle?

Huntington argued that Russia, as the centre of Orthodox civilisation, would remain in fundamental opposition to Western civilisation, particularly the United States and Europe. He predicted that post-Soviet Russia would resist Western liberalism, democracy, and NATO's expansion, positioning itself as a counterforce to Western dominance. He believed that cultural and historical differences between Russia and the West would sustain long-term tensions, with the possibility of military confrontations and geopolitical struggles.

To some extent, Huntington's predictions have been validated by contemporary events, particularly the ongoing Russia-Ukraine war. The expansion of NATO into Eastern Europe, despite Russia's long-standing objections, mirrors Huntington's assertion that Western institutions would continue to encroach upon Russian-influenced regions, fuelling hostility. The 2022 Russian invasion of Ukraine and the subsequent Western sanctions, military aid to Kyiv, and diplomatic isolation of Moscow have reinforced the idea of a deep-rooted Russia-West divide. Vladimir Putin's framing of the conflict as a struggle against Western interference also aligns with Huntington's civilisational thesis. The increasing ideological divergence—where the West promotes liberal democracy and Russia embraces nationalism, authoritarianism, and revival of Orthodox identity—suggests that cultural and ideological differences play a role in sustaining the conflict.

However, Huntington's framework does not fully explain the complexities of Russia-West relations, as it overlooks key geopolitical, economic, and strategic factors. One of the most significant aspects he missed is the role of energy politics in shaping Russia's relationship with the West. Russia's economic power is largely derived from its oil and gas exports, and for years, European countries were heavily dependent on Russian energy supplies through projects like Nord Stream 1 and 2. This economic interdependence meant that, despite ideological differences, European nations maintained strong trade relations with Moscow. Even after the Ukraine war began, Western countries struggled to completely cut off Russian energy imports, highlighting how economic interests often override civilisational divisions. The conflict is thus not purely about cultural or ideological opposition but also about access to resources, economic leverage, and strategic positioning.

Another major factor Huntington underestimated is Ukraine's agency in the geopolitical struggle. Rather than being a passive battleground for a civilisational clash, Ukraine's resistance to Russian aggression is driven by its national sovereignty, democratic aspirations, and desire for Western integration. The Ukrainian government and people have actively chosen to align with the West, seeking EU and NATO membership not solely due to civilisational affinity but because of economic and security interests. The war is not merely a battle between Orthodox and Western civilisations; it is a fight for self-determination, where Ukraine refuses to be reduced to a buffer state in great power politics.

Additionally, Russia's relations with non-Western powers, particularly China and Bharat, complicate Huntington's binary model. While he focused on a Russia-West divide, Russia has deepened economic and strategic ties with China, forming a quasi-alliance against Western influence. Similarly, despite tensions with the West, Russia maintains strong defence and energy partnerships with Bharat, further proving that its global positioning is not solely determined by civilisational identity. The geopolitical landscape is thus more fluid than Huntington predicted, shaped by pragmatic alliances rather than rigid civilisational blocks.

While Russia-West tensions support some of Huntington's claims, the true drivers of conflict extend beyond civilisational differences. Energy politics, economic interests, national sovereignty, and strategic alliances all play crucial roles in shaping contemporary relations.

The Russia-Ukraine war is not just a clash of civilisations but a broader power struggle involving territorial ambitions, geopolitical manoeuvring, and economic warfare.

Findings/Results

This research critically evaluates Huntington's *Clash of Civilizations* against contemporary geopolitical realities. While some of his predictions align with global tensions, many conflicts are shaped more by economic, political, and technological factors than by civilisational identity.

1. Civilizational Identity is Not the Primary Driver of Conflict

Huntington claimed that cultural and religious identity would replace ideology as the dominant source of conflict, but evidence suggests otherwise:

- Economic and strategic interests outweigh civilisational ties. Bharat and the U.S. are strong partners despite cultural differences, while Russia and Ukraine, both Orthodox nations, are at war.
- Intra-civilisational conflicts challenge Huntington's model. The Sunni-Shia divide (Saudi Arabia vs. Iran), the Russia-Ukraine war, and Western disagreements (e.g., U.S.-EU trade tensions) show fragmentation within civilisations.
- Nationalism and sovereignty play a greater role. Ukraine's struggle is more about self-determination than an Orthodox-Western clash.

2. Limitations of the Fault Line Conflict Hypothesis

Huntington's fault line theory, which argues that civilisations clash at their borders, is only partially valid:

- Confirmed Cases: U.S.-China tensions, Bharat-Pakistan hostilities, and Russia-NATO confrontations align with his predictions.
- Contradictions: Many conflicts occur within civilisations, and economic interdependence often prevents direct clashes (e.g., U.S.-China trade ties). New Conflict Dimensions: Cybersecurity, AI dominance, and trade wars play a central role in modern geopolitical rivalries, none of which fit Huntington's civilisational framework.

3. The Inaccuracy of the “West vs. the Rest” Paradigm

Huntington’s claim that non-Western civilisations would unite against the West is flawed.

- China integrates into Western economic systems while challenging U.S. dominance. The Belt and Road Initiative (BRI) reflects economic expansion, not military confrontation.
- Islamic nations have diverse strategic alignments. Iran opposes the West, but Saudi Arabia, the UAE, and Turkey maintain strong Western partnerships.
- Bharat follows strategic autonomy rather than aligning strictly against the West.

4. Economic and Technological Rivalries as Dominant Global Forces

Huntington underestimated the role of economic and technological competition in shaping global politics.

- The U.S.-China conflict is more about AI, semiconductors, and economic supremacy than civilisational values.
- Russia’s geopolitical strategy is driven by energy dominance, not Orthodox identity.
- Bharat’s global rise is defined by trade, diplomacy, and strategic alliances rather than Hindu identity.

Key Findings Summary

1. Civilisational identity is not the dominant force in global conflicts; nationalism, economy, and technology play a bigger role.
2. Fault line conflicts exist but do not fully explain geopolitical tensions—many major conflicts occur within civilisations.
3. The “West vs. the Rest” framework is outdated; nations prioritise strategic interests over cultural loyalties.
4. Economic policies, AI, and energy security drive modern conflicts more than religious or civilisational differences.

These findings highlight **the need for a more comprehensive framework** that integrates economic, political, and technological factors into global conflict analysis.

Limitations

While this paper critiques Huntington’s *Clash of Civilizations*, several limitations must be acknowledged:

Complexity of Conflicts: Global tensions stem from political, economic, and historical factors, not just civilisational divides. Domestic politics, leadership changes, and regional disputes often override cultural identity.

Non-state actors: Huntington's state-centric model ignores the role of terrorist networks, multinational corporations, and global institutions in shaping conflicts.

Technology & Cyber Warfare: Modern conflicts are increasingly defined by AI, cyberattacks, digital propaganda, and economic sanctions, which do not fit into Huntington's civilisational framework.

Economic Interdependence: Global trade and financial ties often prevent civilisational clashes. Rival powers, such as the U.S. and China, or Gulf nations and the West, maintain strong economic partnerships despite ideological differences.

Fluid Civilisational Identities: Nations evolve; Turkey's political shifts, Ukraine's Western aspirations, and intra-Islamic rivalries (e.g., Saudi-Iran tensions) contradict fixed civilisational alignments.

Huntington's theory offers a cultural lens but oversimplifies modern geopolitics, which is shaped more by power struggles, economic interests, and technological advancements. Future analyses should adopt a hybrid approach integrating geopolitics, trade, and digital transformations.

Conclusion

Samuel P. Huntington's *Clash of Civilizations* has been one of the most influential yet controversial theories in international relations. His central argument—that civilisational identities, rooted in religion and culture, would be the primary drivers of conflict in the post-Cold War world—resonated with many at the time of its publication. However, a critical evaluation in light of contemporary geopolitical realities reveals significant limitations in Huntington's framework. While certain aspects of his predictions—such as tensions between the West and the Islamic world, the rise of China, and Russia's strategic opposition to Western expansion—have played out to some extent, the complexity of global conflicts far exceeds his model.

One of the most fundamental flaws in Huntington's argument is his oversimplification of conflict drivers. Modern geopolitical tensions are often driven not just by cultural or religious divides but by economic competition, political ideologies, technological advancements, and resource struggles. The U.S.-China rivalry, for example, is not merely a "West vs. Sinic" clash but rather a technological, economic, and strategic competition shaped by factors such as trade policies, global supply chains, and military expansion. Similarly, the Russia-Ukraine war may have cultural and historical dimensions, but its roots lie in territorial disputes, NATO expansion, and Russia's assertion of strategic dominance rather than a purely civilisational confrontation between Orthodox and Western identities.

Moreover, Huntington's "fault line conflicts" model fails to account for the significance of intra-civilisational struggles. The Sunni-Shia divide within the Islamic world (e.g., Saudi Arabia vs. Iran), the nationalist rivalries within Europe (e.g., Brexit, Franco-German tensions), and the deepening political polarisation within the United States itself contradict his assumption that civilisations function as unified, monolithic blocs. These internal fractures demonstrate that political, economic, and ideological factors frequently override religious or cultural unity.

The "kin-country syndrome," or the idea that states will align along civilisational lines, has also proven inconsistent in practice. Huntington expected that nations within the same civilisation would rally together against external threats, yet modern alliances are far more pragmatic. China's partnerships with Islamic nations (e.g., Saudi Arabia, Iran, and Pakistan), Bharat's engagement with both the U.S. and Russia, and the growing economic ties between Western and Gulf nations all challenge Huntington's assumption that civilisations behave as cohesive geopolitical units.

Another critical limitation of Huntington's model is its failure to anticipate the role of economic interdependence and global institutions. Despite political and military tensions, China and the U.S. remain deeply economically interconnected, the European Union continues to function despite its internal divisions, and major economies often prioritise economic stability over ideological or civilisational confrontations. Furthermore, the rise of multipolarity—with Bharat, Brazil, and other emerging powers asserting themselves—demonstrates that the world is no longer structured around a simple "West vs. the Rest" binary.

Ultimately, while Huntington's theory introduced an important cultural dimension to international relations, it cannot serve as the dominant framework for analysing modern geopolitics. Instead, a realist-pragmatist approach—which considers economic interdependence, technological advancements, resource competition, and strategic alliances—provides a more accurate and nuanced understanding of global conflicts in the 21st .

References

1. Huntington, *The Clash of Civilisations and the Remaking of World Order* (New York: Simon & Schuster, 1996), 19-20, 21–22, 26–27, 29, 37-39, 42–43, 45, 109-112, 125, 125–126, 138, 154, 159, 161, 176, 181, 184, 187, 207–208, 231–232, 234, 238, 244, 258, 263, 263–265, 267, 312–313.
2. Stephen M. Walt, "Building Up New Bogeymen: The Clash of Civilisations and the Remaking of World Order," *Foreign Affairs* 76, no. 2 (1997): 183–187.
3. Kishore Mahbubani, *Has China Won? The Chinese Challenge to American Primacy* (New York: Public Affairs, 2020), 78.
4. AmitavAcharya, *The End of American World Order* (Cambridge: Polity Press, 2018), 98.
5. Andrei P. Tsygankov, *Russia and the West from Alexander to Putin: Honour in International Relations* (Cambridge: Cambridge University Press, 2012), 143.
6. G. John Ikenberry, *Liberal Leviathan: The Origins, Crisis, and Transformation of the American World Order* (Princeton: Princeton University Press, 2011), 156.
7. Henry Kissinger, *World Order* (New York: Penguin Press, 2014), 119, 219, 224.
8. Francis Fukuyama, *The End of History and the Last Man* (New York: Free Press, 1992), xiii.
9. Graham E. Fuller, "The Future of Political Islam," *Foreign Affairs* 81, no. 2 (March–April 2002): 49.
10. Edward Said, "The Clash of Ignorance," *The Nation*, October 22, 2001,https://www.thenation.com/article/archive/clash-ignorance/.
11. AmartyaSen, *Identity and Violence: The Illusion of Destiny* (New York: W.W. Norton, 2006), 54.
12. John Mearsheimer, *The Tragedy of Great Power Politics* (New York: W.W. Norton, 2001), 91.
13. Zbigniew Brzezinski, *The Grand Chessboard: American Primacy and Its Geostrategic Imperatives* (New York: Basic Books, 1997), 42, 72–77.
14. FareedZakaria, *The Post-American World* (New York: W.W. Norton, 2008), 107, 167-180, 234-237.

15. Robert D. Kaplan, *The Revenge of Geography: What the Map Tells Us About Coming Conflicts and the Battle Against Fate* (New York: Random House, 2012), 256.
16. Kishore Mahbubani, *The Great Convergence: Asia, the West, and the Logic of One World* (New York: Public Affairs, 2013), 71.
17. Joseph S. Nye, *The Future of Power* (New York: Public Affairs, 2011), 143.
18. Stephen M. Walt, "International Relations: One World, Many Theories", *Foreign Policy* 110 (Spring 1998): 44.
19. Richard N. Haass, *The World: A Brief Introduction* (New York: Penguin Press, 2020), 89.
20. ParagKhanna, *The Future Is Asian* (New York: Simon & Schuster, 2019), 65.
21. Gilles Kepel, *Jihad: The Trail of Political Islam* (Cambridge: Harvard University Press, 2002), 248-251.
22. Jason Burke, *Al-Qaeda: The True Story of Radical Islam* (London: I.B. Tauris, 2004), 312-316.
23. Fawaz A. Gerges, *The Far Enemy: Why Jihad Went Global* (New York: Cambridge University Press, 2005), 181-184.
24. Arun Kundnani, *The Muslims Are Coming! Islamophobia, Extremism, and the Domestic War on Terror* (London: Verso, 2014), 45-48.
25. CasMudde,*The Far Right Today* (Cambridge: Polity Press, 2019), 78-81.
26. Rashid Khalidi, *The Hundred Years' War on Palestine: A History of Settler Colonialism and Resistance, 1917-2017* (New York: Metropolitan Books, 2020), 256-259.
27. Vali Nasr, *The Shia Revival: How Conflicts Within Islam Will Shape the Future* (New York: W.W. Norton & Company, 2006), 198-202.
28. Rami G. Khouri, "The Saudi-Iranian Rivalry and the Fate of the Middle East," *Middle East Journal* 71, no. 4 (2017): 521-525.
29. Marc Lynch, *The Arab Uprising: The Unfinished Revolutions of the New Middle East* (New York: Public Affairs, 2012), 114-116.
30. Bernard Haykel, Thomas Hegghammer and StéphaneLacroix, *Saudi Arabia in Transition: Insights on Social, Political, Economic and Religious Change* (New York: Cambridge University Press, 2015), 302-304.
31. SonerCagaptay, *The New Sultan: Erdogan and the Crisis of Modern Turkey* (London: I.B. Tauris, 2017), 141-143.

32. YoelGuzansky, "The Abraham Accords: Normalisation with Israel and Its Regional Implications," *Strategic Assessment* 24, no. 2 (2021): 7-10.
33. ParagKhanna, *The Future Is Asian: Commerce, Conflict, and Culture in the 21st Century* (New York: Simon & Schuster, 2019), 227-230.
34. James L. Gelvin, *The Arab Uprisings: What Everyone Needs to Know* (New York: Oxford University Press, 2015), 87-90.
35. Charles Kurzman, *The Missing Martyrs: Why There Are So Few Muslim Terrorists* (New York: Oxford University Press, 2011), 129-132.
36. David E. Sanger, *The Perfect Weapon: War, Sabotage, and Fear in the Cyber Age* (New York: Crown, 2018), 211-213.
37. Olivier Roy, *Globalised Islam: The Search for a New Ummah* (New York: Columbia University Press, 2004), 165-168.
38. Kai-Fu Lee, *AI Superpowers: China, Silicon Valley, and the New World Order* (Boston: Houghton Mifflin Harcourt, 2018), 76-82.
39. M. Taylor Fravel, *Active Defence: China's Military Strategy since 1949* (Princeton: Princeton University Press, 2019), 261-273.
40. Michael Beckley, *Unrivaled: Why America Will Remain the World's Sole Superpower* (Ithaca: Cornell University Press, 2018), 147-158.
41. Chad P. Bown, *The US–China Trade War and Phase One Agreement* (Washington, DC: Peterson Institute for International Economics, 2021), 22-33.
42. Richard C. Bush, *Difficult Choices: Taiwan's Quest for Security and the Good Life* (Washington, DC: Brookings Institution Press, 2021), 115-128.
43. Jonathan E. Hillman, *The Emperor's New Road: China and the Project of the Century* (New Haven: Yale University Press, 2020), 34-46.
44. Deborah Brautigam, *The Dragon's Gift: The Real Story of China in Africa* (Oxford: Oxford University Press, 2009), 92-110, 129-141.
45. Daniel A. Bell, *The China Model: Political Meritocracy and the Limits of Democracy* (Princeton: Princeton University Press, 2015), 55-66.
46. Henry Farrell and Abraham L. Newman, "Weaponized Interdependence: How Global Economic Networks Shape State Coercion," *International Security* 44, no. 1 (2019): 42-79.

47. Yasheng Huang, *Capitalism with Chinese Characteristics: Entrepreneurship and the State* (Cambridge: Cambridge University Press, 2008), 196-210.
48. Graham Allison, *Destined for War: Can America and China Escape Thucydides's Trap?* (Boston: Houghton Mifflin Harcourt, 2017), 174-188.
49. C. Raja Mohan, *Modi's World: Expanding India's Sphere of Influence* (New Delhi: HarperCollins India, 2015), 23-40, 56.
50. TanviMadan, *Fateful Triangle: How China Shaped US-India Relations During the Cold War* (Washington, DC: Brookings Institution Press, 2020), 82-95.
51. Bobo Lo, *Russia and the New World Disorder* (Washington, DC: Brookings Institution Press, 2015), 153-168.
52. Stephen Kotkin, "Russia's Perpetual Geopolitics: Putin Returns to the Historical Pattern," *Foreign Affairs* 95, no. 3 (2016): 2-9.
53. Chris Miller, *Chip War: The Fight for the World's Most Critical Technology* (New York: Scribner, 2022), 45-67.
54. Scott Kennedy, "China's Uneven High-Tech Drive: Implications for the United States," *Center for Strategic and International Studies* (2020): 4-12.
55. Adam Segal, *The Hacked World Order: How Nations Fight, Trade, Maneuver, and Manipulate in the Digital Age* (New York: Public Affairs, 2016), 123-136.
56. John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: W.W. Norton & Company, 2001), 347-362.
57. Kevin Rudd, *The Avoidable War: The Dangers of a Catastrophic Conflict Between the US and Xi Jinping's China* (New York: PublicAffairs, 2022), 201-214.
58. Ivan Krastev and Mark Leonard, *The Age of Unpeace: How Connectivity Causes Conflict* (New York: Penguin Books, 2021), 98-112.
59. Christophe Jaffrelot, *Hindu Nationalism: A Reader* (Princeton: Princeton University Press, 2007), 189.
60. SumitGanguly, "Hindutva, Modi, and Foreign Policy in Bharat," *International Affairs* 95, no. 4 (2019): 785.
61. C. Christine Fair, *Fighting to the End: The Pakistan Army's Way of War* (New York: Oxford University Press, 2014), 105.
62. Happymon Jacob, *The Line of Control: Travelling with the Indian and Pakistani Armies* (New Delhi: Penguin, 2018), 225.

63. Sushant Singh, *Mission Overseas: Daring Operations by the Indian Military* (New Delhi: Juggernaut Books, 2017), 144.
64. HussainHaqqani, *Pakistan: Between Mosque and Military* (Washington, D.C.: Carnegie Endowment for International Peace, 2010), 187.
65. Stephen P. Cohen, *The Idea of Pakistan* (Washington, D.C.: Brookings Institution Press, 2004), 234.
66. Harsh V. Pant, *Bharat's Foreign Policy: An Overview* (Manchester: Manchester University Press, 2016), 62–70, 98.
67. Ayesha Siddiqa, *Military Inc.: Inside Pakistan's Military Economy* (London: Pluto Press, 2017), 175.
68. ShahidJavedBurki, *Pakistan Under Bhutto, 1971–1977* (London: Macmillan, 1980), 89.
69. Christophe Jaffrelot, *The Pakistan Paradox: Instability and Resilience* (London: Hurst, 2015), 302.
70. Owen Bennett-Jones, *Pakistan: Eye of the Storm* (New Haven: Yale University Press, 2002), 267.
71. Andrew Small, *The China-Pakistan Axis: Asia's New Geopolitics* (New York: Oxford University Press, 2015), 111.
72. ArifRafiq, "The China-Pakistan Economic Corridor: Barriers and Impact," *The Middle East Institute*, December 2017, https://www.mei.edu/publications/china-pakistan-economic-corridor-barriers-and-impact.
73. Harsh V. Pant and Ketan Mehta, "The China-Pakistan Economic Corridor and the Evolving South Asian Order," *Strategic Analysis* 44, no. 3 (2020): 203.
74. Lisa Curtis, "China's Role in Pakistan's Military Expansion," *The Heritage Foundation*, March 2019. https://www.heritage.org/asia/report/chinas-role-pakistans-military expansion.
75. SumitGanguly and Rahul Mukherji, *Bharat Since 1980* (Cambridge: Cambridge University Press, 2011), 147.
76. AparnaPande, *Making Bharat Great: The Case for a Stronger Leadership* (New York: HarperCollins, 2020), 229.
77. Mearsheimer, John J., "Why the Ukraine Crisis Is the West's Fault." *Foreign Affairs* 93, no. 5 (2014): 77–89.

78. NATO, "Enlargement," NATO Official Website, last modified 2023, https://www.nato.int/cps/en/natolive/topics_49212.htm.
79. Robert Legvold, "Managing the New Cold War: What Moscow and Washington Can Learn from the Last One," *Foreign Affairs* 93, no. 4 (2014): 74–84.
80. Vladimir Putin, "Address by President of the Russian Federation," Kremlin Official Website, February 21, 2022,http://en.kremlin.ru/events/president/news/67828.
81. Marlene Laruelle, *Is Russia Fascist? Unraveling Propaganda East and West* (Ithaca: Cornell University Press, 2021), 98–104.
82. Thomas Graham, "The Sources of Russian Conduct," *Foreign Affairs* 95, no. 5 (2016): 50–62.
83. Daniel Yergin, *The New Map: Energy, Climate, and the Clash of Nations* (New York: Penguin, 2020), 271–274.
84. AgniaGrigas, *The New Geopolitics of Natural Gas* (Harvard University Press, 2017), 132–138, 144.
85. Daniel Fried and Edward Fishman, "Europe's Russian Energy Dilemma," *The Atlantic Council* (2022), https://www.atlanticcouncil.org.
86. Fiona Hill, "Putin and Russia's Crumbling Empire," *Foreign Affairs* 101, no. 6 (2022): 35–52.
87. Timothy Snyder, *The Road to Unfreedom: Russia, Europe, America* (New York: Tim Duggan Books, 2018), 225.
88. VolodymyrZelensky, "Speech at the European Parliament," Official Transcript, March 1, 2022.
89. Adrian Karatnycky, "Ukraine's Quest for Freedom," *Foreign Affairs* 93, no. 4 (2014): 120–128.
90. Alexander J. Motyl, "The Myth of Russian Greatness," *The National Interest* 174 (2022): 32–45.
91. Richard McGregor, *The Party: The Secret World of China's Communist Rulers* (New York: Harper, 2010), 188.
92. Alexander Cooley and Daniel Nexon, *Exit from Hegemony: The Unraveling of the American Global Order* (Oxford University Press, 2020), 148–152.
93. Sergei Guriev, "Russia's Economic Future," *Journal of Economic Perspectives* 36, no. 4 (2022): 56–72.
94. Fiona Hill and Clifford Gaddy, *Mr. Putin: Operative in the Kremlin* (Brookings Institution Press, 2015), 199.

Loneliness, Hopelessness, and Resourcefulness among Older Adults

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Abstract

Loneliness is one of the biggest ongoing issues among all populations, especially among the elderly population. This study focuses on learning loneliness, hopelessness, and resourcefulness and how they have been affecting the global older population. It reviews many research studies conducted across the world that show the present state of loneliness, hopelessness, and resourcefulness among the elderly. The primary data involves responses from 42 older adults (age group: above 65, 61.9% females & 38.1% males). The data is collected by using standardised psychological measures. The UCLA revised scale was used to measure loneliness, the Beck Hopelessness scale was used to measure hopelessness, and the Resourcefulness scale was used to measure resourcefulness among older adults. Results reveal that there is a significant correlation between loneliness and hopelessness among older adults. There was no significant relationship analysed between resourcefulness and loneliness, as well as resourcefulness and hopelessness. Results are justified in the paper.

Keywords

[Loneliness, Hopelessness, Resourcefulness]

Introduction

Loneliness: Definition and prevalence

Loneliness is a complex psychosocial issue affecting mental and physical health, particularly among older adults. While definitions vary, it is distinct from social isolation and depression (Grover, 2022). Prevalence estimates range widely, with meta-analyses reporting moderate loneliness in 31-100% and severe loneliness in 9-81% of elderly populations (Grover, 2022). A systematic review in India found a pooled prevalence of 41% across all ages, with higher rates among the elderly (Hossain et al., 2020). In high-income countries, a meta-analysis estimated loneliness prevalence at 28.5% among older adults, with 25.9% experiencing moderate loneliness and 7.9% experiencing severe loneliness (Chawla et al., 2021). A primary care study in the United States found a 20% prevalence, with loneliness inversely associated with age, marriage, and employment (Mullen et al., 2019). Loneliness is linked to adverse health outcomes and increased healthcare utilisation (Mullen et al., 2019; Grover, 2022).

Loneliness in India

Loneliness is a significant issue in India, affecting both the elderly and youth populations. A systematic review found a pooled prevalence of 41% among 3,169 participants, with higher rates among the elderly (44%) compared to younger individuals (24%) (Hossain et al., 2020). The Longitudinal Ageing Study in India (LASI) Wave-1 reported that 13.4% of elderly individuals experience frequent loneliness (Srivastava&Srivastava, 2023). Factors associated with loneliness include age, marital status, chronic conditions, physical inactivity, and limited social networks (Srivastava&Srivastava, 2023). Among Indian youth, contributing factors include migration, internet addiction, low self-esteem, and mental health issues (Pandit, 2020). Additional factors such as body shaming, bullying, and relationship failures may also play a role (Pandit, 2020). The high prevalence of loneliness in India necessitates the development of targeted interventions to address the risk factors and alleviate its burden (Hossain et al., 2020).

Loneliness across the world

Recent research reveals significant variations in loneliness across cultures, age groups, and genders worldwide. Chronic loneliness prevalence among adults 50+ ranges from 4% in Denmark to 15% in Greece, with living alone being a consistent risk factor (Sheftel et al., 2024). Loneliness is more prevalent in individualistic cultures, decreases with age, and is higher in men than women, with younger men in individualistic societies being most vulnerable (Barreto et al., 2021). Among adolescents, individual, school, and country-level factors influence loneliness, which negatively impacts academic performance (Jefferson et al., 2023). Interventions targeting social skills, teacher-student trust, and inclusive school climates may be effective. Historically, loneliness-like experiences have been observed across cultures and periods, encompassing phenomena such as estrangement, longing, and homesickness (Barclay, 2024). These findings underscore the complex, multifaceted nature of loneliness and its significance as a global public health concern. Numerous studies have demonstrated that when loneliness increases, its symptoms become more ubiquitous (Kennedy, 1996).

Hopelessness and its effects

Becket al. (1974) defined hopelessness as a lack of enthusiasm, a motivational tendency to give up, and a dearth of positive expectancies.

Current research denies Kennedy's prediction in 1996 by proving hopelessness is not equivalent to ageing. A variety of social, physical, and psychological problems are connected to hopelessness. The likelihood of despair rises as a result of these challenges because they commonly appear in later adulthood; nevertheless, hopelessness is not always a result of these issues. Age doesn't always correlate with a person's level of hopelessness, and older people may even have good coping mechanisms for dealing with it, such as trying to make their loneliness symptoms more noticeable but not to the same extreme degree as younger people (Arshad et al., 2021). Hopelessness tends to persist over time and can have long-term effects on health outcomes (Dunn et al., 2009; Evanson et al., 1997).

Furthermore, both hopelessness and depression (in particular, untreated depression) (Ghio et al., 2015) are related to suicidal behaviour. Nevertheless, multiple researchers demonstrated that hopelessness may be a more important risk factor for suicidal behaviour than depression itself (Horwitz et al., 2017; Zhang & Li, 2013; McMillan et al., 2007; Salter & Platt, 1990). Hopelessness has been identified as a key factor linking depression to suicidal behaviour, with implications for more effective therapy for suicidal individuals (Beck et al., 1975). Research has consistently shown hopelessness to be a significant predictor of suicidal behaviour, even when controlling for social desirability (Ivanoff& Jang, 1991). A 13-year community-based study found hopelessness to be a long-term predictor of various suicidal behaviours, including completed suicide, attempted suicide, and suicidal ideation, independent of depression and substance use disorders (Kuo et al., 2004). In individuals with post-traumatic stress disorder (PTSD), hopelessness, along with feelings of defeat and entrapment, was significantly associated with suicidal behaviour, even after controlling for comorbid depression (Panagioti et al., 2012). These findings support contemporary theories of suicidality and highlight the importance of addressing hopelessness in suicide prevention strategies and clinical interventions for individuals at risk of suicidal behaviour. This does not imply determinism of hopelessness or loneliness inevitably leading to suicide but there might be a possibility.

Hopelessness sometimes follows loneliness:

Max (2005) found that the perception of loneliness had a substantial impact on the impact of hopelessness on death. As a result, elderly people are only regarded as at risk for feeling hopeless when melancholy is experienced. Hopelessness typically follows loneliness. Surrender, worry, a lack of motivation, and despair are common loneliness manifestations that imitate and conceal loneliness symptoms (Arshad et al., 2021). Together, hopelessness and loneliness can create a self-reinforcing cycle. This cycle can have significant impacts on mental health, increasing the risk of depression, anxiety, and other emotional difficulties. Both emotions can also lead to negative thought patterns, such as focusing on perceived failures or assuming the worst about social interactions, which can make it even harder to break free from the cycle. Evidence shows that lonely individuals are more likely to suffer from feelings of hopelessness and even suicidal ideation (Chang et al., 2010; Stickley and Koyanagi, 2016). A higher degree of loneliness has been associated with increased mortality (Holt-Lunstad et al., 2015).

Role of Resourcefulness

Resourcefulness is a set of cognitive-behavioural self-control skills for coping with stress and maintaining quality of life (Wang &Zauszniewski, 2018). It involves self-regulation processes, including redressive and reformative self-control, which are crucial for managing acute stress and adopting new behaviours (Rosenbaum, 1989). Research has shown that highly resourceful individuals cope more effectively with stressful situations and are better able to adopt health-related behaviours (Rosenbaum, 1989). In community-based patients with schizophrenia, resourcefulness and psychotic symptoms were found to be determinants of quality of life (Yu et al., 2019). Factors influencing resourcefulness in preadolescents include academic stress and dispositional optimism (Wang &Zauszniewski, 2018). To measure the use of resourcefulness skills, the Resourcefulness Skills Scale (RSS) has been developed, demonstrating acceptable reliability and validity (Zauszniewski&Bekhet, 2011). This scale can potentially evaluate the translation of resourcefulness training into daily life skills application (Zauszniewski&Bekhet, 2011).

Research on resourcefulness among older adults has shown promising results for improving well-being and adaptive functioning. Resourcefulness training interventions have demonstrated potential benefits, including increased positive cognitions, relocation adjustment, and life satisfaction (Bekhet&Zauszniewski, 2016; Zauszniewski, 1997). These interventions focus on teaching self-control techniques and problem-solving skills, which are believed to be learnable (Zauszniewski, 1997). Personal resourcefulness, in particular, has been associated with better depression outcomes in homebound older adults (Choi et al., 2013). Racial differences in resourcefulness have also been observed, with Black elders showing higher levels of resourcefulness compared to White elders, despite reporting fewer physical health problems and depressive cognitions (Zauszniewski&Wykle, 1994). The strong association between depressive cognitions and learnt resourcefulness across racial groups highlights the importance of developing strategies to teach or reinforce resourcefulness in older adults to promote mental health and prevent depression (Zauszniewski&Wykle, 1994).

Correlates of resourcefulness

Research on resourcefulness and related constructs reveals important insights into coping mechanisms and well-being. Resourcefulness, comprising personal and social dimensions, is distinct from but related to resilience and mindfulness (Musil et al., 2021). These constructs show moderate to strong intercorrelations and are associated with better psychological adjustment and health outcomes (Musil et al., 2021; Toomey et al., 1995). Specifically, learnt resourcefulness in chronic pain patients correlates with improved psychological adjustment and less impulsive healthcare utilisation (Toomey et al., 1995). Social resourcefulness, involving behaviours to establish and maintain supportive relationships, is significantly associated with social support and caretaker well-being, including reduced depression and improved quality of life (Rapp et al., 1998). These findings highlight the potential benefits of interventions targeting resourcefulness, resilience, and mindfulness to enhance psychosocial outcomes in various populations, particularly caretakers and individuals managing chronic conditions (Musil et al., 2021; Rapp et al., 1998).

Role of increasing age

Hansson et al. (1987) found a link between loneliness and poor psychosocial functioning, family dissatisfaction, and social interactions. As people age, their risk of having suffered age-related losses rises. Researchers have discovered that loneliness has a detrimental effect on elderly health (Heikkinen et al., 1995). The largest prevalence of loneliness is found in the oldest age group, which is consistent with their higher probability of experiencing such losses. Research on the relationship between age and loneliness reveals a complex, nonlinear pattern across the lifespan. While loneliness generally increases with age, particularly among older adults (Keming Yang & C. Victor, 2012; MarjaJylha, 2004), some studies indicate that loneliness peaks in adolescence and young adulthood (Bridget J. Shovestul et al., 2020; L. Hawkley et al., 2020). Factors such as household composition, social participation, and health status play significant roles in predicting loneliness, often more so than age itself (MarjaJylha, 2004; L. Hawkley et al., 2020). Cross-national comparisons reveal substantial variations in loneliness prevalence, with Eastern European countries reporting higher levels than Northern European nations (Keming Yang & C. Victor, 2011). Interestingly, community characteristics like household income may influence loneliness, while sociodemographic density appears to have little impact (Shovestul et al., 2019). These findings suggest that loneliness is a multifaceted phenomenon influenced by various personal, social, and environmental factors across different life stages.

While one study found that older cancer patients reported less hopelessness than younger ones (Gil &Gilbar, 2001), another showed that older whites experienced steeper increases in hopelessness over time compared to minorities. Discrimination was associated with higher levels of hopelessness among middle-aged and older Black adults (Mitchell et al., 2020). However, social support, religious engagement, and religiosity were found to be protective factors against hopelessness, with age-specific effects (Mitchell et al., 2020). Emotion regulation also plays a role, as emotion inhibition was linked to increased hopelessness and suicidal ideation in depressed older adults (Lynch et al., 2004). These findings highlight the importance of considering multiple factors, including age, race, social support, and emotional processes, when addressing hopelessness in older populations.

Problem statement:

To study the relationship between loneliness, hopelessness, and resourcefulness.

Hypotheses:

1. There will be a significant relationship between loneliness and hopelessness.

2. A significant relationship will be observed between resourcefulness and loneliness.

3. Resourcefulness and hopelessness would be significantly correlated.

Method:

Data collection was done by using the convenience and snowball sampling methods. Standardised psychometric tools were used to collect the data through a Google form and an in-person interview/reading out the questions to participants. The original scales were translated into Marathi and reviewed by an expert. Statistical analysis was conducted on JASP (Jeffrey's Amazing Statistical Program), which is open-source statistical software.

Demographic details:

The primary data involves 42 older adults residing in the Pune and Kolhapur districts of Maharashtra (age group: above 65). Their demographic details, like area of living, economic details, marital status, working status, and chronic illness, were noted. Demographic details are provided ahead.

Demographic details	Categories	Percentage
Gender	Male	61.9%
	Female	38.1%
Area of living	Rural	18.9%
	Urban	81.1%
Marital Status	Married	78.6%
	Widow/Widower	21.4%
Lives with	Family	90.5%
	Alone	9.5%
Working Status	Retired	76.2%
	Business/Full-time	14.2%
	Part-time	9.5%
Socioeconomic Class	Higher class	40.5%
	Middle class	50%
	Lower class	9.5%

Tools used in the study:

U C L A Loneliness Scale (Revised): This scale was developed by Rosella, Palau, and Ferguson (1978) and revised by D. Russell, L. A. Peplau, and C. E. Cutrona (1988). A 20-item scale designed to measure one's subjective feelings of loneliness as well as feelings of social isolation. Participants rate each item as O ("I often feel this way"), S ("I sometimes this way"), 'R' ("I rarely feel this way"), and 'N' ("I never feel this way"). The scale has high internal consistency, with Cronbach's alpha ranging from 0.89 to 0.94. It has test-retest reliability over one year. Convergent validity for the scale was seen by significant correlations with other measures of loneliness. Concurrent validity was supported by significant relations with measures of the adequacy of the individual's interpersonal relationships and by correlations between loneliness and measures of health and well-being.

Beck Hopelessness Scale: The Beck Hopelessness Scale (BHS) is a psychological assessment tool developed by Aaron T. Beck in 1988. It is designed to measure three main aspects of hopelessness: feelings about the future, loss of motivation, and expectations. The scale consists of 20 true-false statements, and it is commonly used in clinical settings to assess the severity of hopelessness. The BHS generally shows high internal consistency, with Cronbach's alpha coefficients typically ranging from **0.82 to 0.93**, indicating that the items consistently measure the same construct. The scale has demonstrated good test-retest reliability over short periods (e.g., 1 week to 6 weeks), with correlations ranging from **0.66 to 0.82**, suggesting stability in measuring hopelessness over time. The test also has good construct concurrent and predictive validity.

Resourcefulness Scale: The resourcefulness scale by Zauszniewski, Lai, and Tithiphontumrong (2006) was used to measure resourcefulness in older adults. This scale was initially developed for older adults and has a total of 28 items. All items are positive and are to be rated on a 6-point Likert scale, where '1' is extremely non-descriptive to 6, which is extremely descriptive. The internal consistency reliability with Cronbach's alpha coefficient typically ranges from 0.8 to 0.9 across various studies. The test-retest reliability ranges from 0.7 to 0.85. The scale has good construct validity, as well as good convergent and discriminant validity.

Result

1.1 Descriptive Statistics

	Resourcefulness	Hopelessness	Loneliness
Mean	106.833	4.976	33.476
Std. Deviation	35.285	3.056	8.603

Correlation

Spearman's Correlations

			Spearman's rho		p
Resourcefulness	-	Hopelessness	0.010		0.952
Resourcefulness	-	loneliness	0.066		0.676
Hopelessness	-	loneliness	0.526	***	< .001

* p < .05, ** p < .01, *** p < .001

Discussion

The purpose of this study is to examine the relationship between loneliness, Hopelessness, and resourcefulness.

The primary data in the study include 42 older adults who are above 65 years of age in Pune and Kolhapur. The convenience and snowball sampling method was used to collect the data. Standardized Psychometric tools were used to collect the data, through a Google form and in-person interview/reading out the questions to participants. The original scales were translated into the Marathi language and reviewed by an expert. Statistical analysis was conducted on JASP (Jeffrey's Amazing Statistical Program). Descriptive statistics were calculated by using JASP software. Mean and standard deviation were calculated. Spearman's Rho was used to calculate the correlation between all three variables in the study. Spearman's rho, also known as Spearman's rank order correlation, is a non-parametric statistical test used to calculate correlation between variables.

The correlation values of 0.010 and 0.066 reported that there was no significant correlation between resourcefulness & loneliness, as well as resourcefulness and hopelessness. In a 2009 study, the relationship between resourcefulness and loneliness is reported to be negatively significant (Zauszniewski et al., 2009). Another study conducted in 2006 reported a significant negative correlation between hopelessness and resourcefulness (Zauszniewski et al., 2006). Probably due to the limitations of this study, which are the inadequate sample size and high homogeneity in the sample, the results did not occur statistically significant. Previous literature consistently reports a negative significant correlation between resourcefulness and the other two variables, which contradicts our results of correlation values 0.010 and 0.06, which can be interpreted as negligible correlation due to the limitations of this study. The

Spearman's rho value of 0.526 between hopelessness and loneliness was significant ($p =< 0.001$). Hence, the correlation between hopelessness and loneliness is statistically significant and is interpreted as a moderate level of relationship between the variables. A previous study reported a significant positive correlation between loneliness and hopelessness, indicating that individuals who experienced higher levels of loneliness were also more likely to report feelings of hopelessness (Chang et al., 2017). A study by Cacioppo et al. (2015) found a significant bidirectional relationship between loneliness and hopelessness, with each reinforcing the other over time.

Conclusion

According to current estimates, India's population represents roughly 17.7% of the world population. Loneliness is more prevalent in individualistic cultures, decreases with age, and is higher in men than women, with younger men in individualistic societies being most vulnerable (Barreto et al., 2021). A collectivist nation like India, in comparison with world culture, reported that 13.4% of elderly individuals experience frequent loneliness (Srivastava&Srivastava, 2023). Hopelessness, loneliness, and depression are strongly correlated. (Ghio et al., 2015) estimates of depression in India range from 4.5% to 43%. According to global estimates, around 300 million people worldwide suffer from depression, representing approximately 4.4% of the global population, which is far larger than India's estimates. Resourcefulness is not being widely researched in India, as well as globally. Further research on the estimation of resourcefulness can be conducted.

The estimates are larger in the western population compared to the Indian population. In the primary data collected in the study, there is a highly significant correlation between loneliness and hopelessness. Resourcefulness does not correlate with loneliness and hopelessness.
Hence, loneliness, resourcefulness, and hopelessness estimates are different across the world cultures.

Limitations

A larger sample could be taken, which is more generalizable and which could help acquire more statistically significant results. Regression could be used to analyse the impact of the variables on each other. Intervention can be planned, and an experimental study can be conducted to see the impact of the intervention. Studies can be conducted with loneliness and hopelessness as the dependent variable and resourcefulness as an experimental variable with covariates like personality factors, socioeconomic status, Gender, etc.

References

- Arshad, Aleena, et al. "Loneliness, Hopelessness, and Sociability in Older People." *Journal Title* (if available), vol. 4, 2021, pp. 724–33.
- Beck, Aaron T., et al. "The Measurement of Pessimism: The Hopelessness Scale." *Journal of Consulting and Clinical Psychology*, vol. 42, no. 6, 1974, pp. 861–865. *DOI.org (Crossref)*, https://doi.org/10.1037/h0037562.
- Beck, Aaron T. *Cognitive Therapy and the Emotional Disorders*. International Universities Press Inc., 1975.
- Barclay, Katie. *Loneliness in World History*.1st ed., Routledge, 2025.*Routledge*, doi:10.4324/9781003329640.
- Barreto, Manuela, et al. "Loneliness around the world: Age, gender, and cultural differences in loneliness." Personality and individual differences vol. 169 (2021): 110066. doi:10.1016/j.paid.2020.110066
- Bekhet, Abir, and JacleneZauszniewski."The Effect of a Resourcefulness Training Intervention on Relocation Adjustment and Adaptive Functioning among Older Adults in Retirement Communities." *Issues in Mental Health Nursing*, vol. 37, 2016, pp. 1–8. DOI: 10.3109/01612840.2015.1087606.
- Beniwal, Priyanka, and C. K. Singh. "Psychological Well-Being and Depression Among Senior Citizens: A Co-Relational Study." *The Pharma Innovation Journal*, vol. 12, no. 11, 2023, pp. 416–420.
- Cacioppo, Stephanie, et al. "Loneliness: Clinical Import and Interventions." *Perspectives on Psychological Science*, vol. 10, no. 2, 2015, pp. 238–249. *SAGE Journals*, doi:10.1177/1745691615570616.
- Horwitz, Adam G et al. "Positive and Negative Expectations of Hopelessness as Longitudinal Predictors of Depression, Suicidal Ideation, and Suicidal Behaviour in High-Risk Adolescents." Suicide & life-threatening behaviourvol. 47,2 (2017): 168-176. doi:10.1111/sltb.12273
- Hossain, M. Mahbub&Purohit, Neetu& Khan, Nusrat&Mckyer, EllisaLisako& Ma, Ping & Bhattacharya, Sudip&Pawar, Priyanka. Prevalence and correlates of loneliness in India: A systematic review. (2020). 10.31124/advance.11533026.v3.
- Max, L. Stek, et al. "Is Depression in Old Age Fatal Only When People Feel Lonely?" *American Journal of Psychiatry*, vol. 162, no. 1, 2005, pp. 178–80. DOI:10.1176/app. app.162.1.178.

- McMillan, Dean, et al. "Can we predict suicide and non-fatal self-harm with the Beck Hopelessness Scale? A meta-analysis." Psychological medicine vol. 37,6 (2007): 769-78. doi:10.1017/S0033291706009664
- Mitchell, Uchechi A et al. "Hopelessness Among Middle-Aged and Older Blacks: The Negative Impact of Discrimination and Protecting Power of Social and Religious Resources." Innovation in aging vol. 4,5 igaa044. 15 Sep. 2020, doi:10.1093/geroni/igaa044
- Mullen RA, Tong S, Sabo RT, Liaw WR, Marshall J, Nease DE Jr, Krist AH, Frey JJ 3rd. Loneliness in Primary Care Patients: A Prevalence Study. Ann Fam Med. 2019 Mar;17(2):108-115. Doi: 10.1370/afm.2358. PMID: 30858253; PMCID: PMC6411405.
- Musil, Carol M et al. "Theoretical and Operational Consideration of Mindfulness, Resilience, and Resourcefulness." Western Journal of Nursing Research vol. 43,3 (2021): 210-218. doi:10.1177/0193945920956684
- Panagioti, Maria, et al. "Hopelessness, Defeat and Entrapment in Posttraumatic Stress Disorder (PTSD): Their Association with Suicidal Behavior and Severity of Depression." *Journal of Nervous and Mental Disease*, vol. 200, no. 8, 2012, pp. 676–83. https://doi.org/10.1097/NMD.0b013e3182613f91.
- Pandit, Tanya. "A Review of Loneliness in Indian Youth." *The International Journal of Indian Psychology*, vol. 8, no. 2, Apr. 2020. *International Journal of Indian Psychology*, ISSN 2348-5396 (Online), ISSN 2349-3429
- Rapp J, Miltenberger R, Long E. Augmenting simplified habit reversal with an awareness enhancement device: preliminary findings. Journal of Applied Behavior Analysis. 1998;31:665–668. doi: 10.1901/jaba.1998.31-665.
- Rosenbaum, Michael. "Self-Control Under Stress: The Role of Learned Resourcefulness." Advances in Behaviour Research and Therapy, vol. 11, no. 4, 1989, pp. 249–58. https://doi.org/10.1016/0146-6402(89)90028-3.
- Russell, Daniel W. "UCLA Loneliness Scale (Version 3): Reliability, Validity, and Factor Structure." *Journal of Personality Assessment*, vol. 66, no. 1, 1996, pp. 20–40. *Taylor and Francis Online*, doi:10.1207/s15327752jpa6601_2.

REVIEW: IMPACT OF THE MODERN CALANDAR ON SCIENCE AND GLOBAL COORDINATION

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Abstract

The modern calendar, particularly the Gregorian calendar, has profoundly influenced science, culture, and global coordination. In this article we initially introduced to correct inaccuracies in the Julian calendar, the Gregorian reform standardized timekeeping, enabling precise astronomical observations, religious scheduling, and economic planning. This article explores the historical evolution of calendars, their impact on scientific precision, navigation, business operations, and cultural traditions, and the role of timekeeping in modern technology and space exploration. Furthermore, it examines potential future calendar reforms, including interplanetary timekeeping and the influence of artificial intelligence on predictive models. As humanity advances toward a more interconnected and spacefaring future, innovations in time measurement will continue to shape civilization, blending tradition with emerging scientific advancements.

Key Words

Gregorian Calendar, Julian Calendar, Pope Gregory XIII, Leap Year Rule, Solar Year, Calendar Reform, Equinox Alignment.

Introduction

Timekeeping has been a fundamental part of human civilisation, influencing religion, agriculture, navigation, commerce, and scientific discoveries. Ancient societies such as the Egyptians, Babylonians, and Mayans developed their own calendars based on celestial observations. However, as human civilisation expanded, inconsistencies between different timekeeping systems created challenges in global coordination.

The transition from the Julian calendar to the Gregorian calendar in 1582 was a landmark event in timekeeping history. Introduced by Pope Gregory XIII, this reform aimed to correct inaccuracies in the previous system, ensuring that religious festivals, seasonal transitions, and scientific calculations remained aligned with the Earth's orbit. Over time, the Gregorian calendar became the dominant timekeeping system worldwide, facilitating global standardization.

Beyond religious and administrative applications, the modern calendar has revolutionized scientific advancements, space exploration, and technological innovations. Its influence extends to astronomy, physics, climatology, and even artificial intelligence, where precise time measurements are crucial for data accuracy. The adoption of the modern calendar has shaped human progress in ways that go far beyond simply tracking days and months.

Astronomical Foundations of the Modern Calendar

The development of the modern calendar was deeply rooted in astronomical observations. Ancient civilisations relied on the sun, moon, and stars to measure time, but these early systems often led to discrepancies over long periods.

The Shift from the Julian to the Gregorian Calendar

The Julian calendar, introduced by Julius Caesar in 45 BCE, calculated a 365.25-day year, adding a leap day every four years. However, this calculation slightly overestimated the solar year, accumulating an error of about 11 minutes per year.Over centuries, this miscalculation pushed equinoxes and solstices out of alignment, affecting agricultural cycles and religious observances such as Easter.

The Gregorian reform in 1582 removed 10 days from the calendar to correct the drift, introducing a more accurate leap year rule: A leap year occurs every four years, except for years divisible by 100 (unless they are also divisible by 400).

Solar and Lunar Cycles in Calendar Formation

The modern calendar is a solar calendar, meaning it is based on Earth's revolution around the Sun rather than lunar cycles.Many religious and cultural calendars, such as the Islamic Hijri calendar, are based on the lunar cycle, leading to different month lengths.Hybrid systems, such as the Chinese and Hebrew calendars, incorporate both lunar and solar elements to maintain seasonal accuracy.

The Role of Equinoxes and Solstices

The Gregorian calendar aligns with the spring and autumn equinoxes, preventing seasonal drift over long periods.Astronomical observations from institutions such as the Vatican Observatory and the Royal Greenwich Observatory played a crucial role in refining the modern calendar.

The Impact of Calendar Reforms on Scientific Observations

The Gregorian calendar enabled precise tracking of planetary motions, allowing astronomers such as Johannes Kepler to refine the laws of planetary motion.Lunar and solar eclipses could be predicted with greater accuracy, improving astronomical modelling. The calendar provided a fixed reference point for historical astronomical records, aiding modern researchers in analysing past celestial events.

The shift to the Gregorian calendar was a monumental step in standardising timekeeping, making scientific observations more precise, and improving coordination across societies.

Adoption of the Gregorian Calendar and Replacement of the Julian Calendar

Before the Gregorian reform, the Julian calendar (introduced by Julius Caesar in 45 BCE) had a fundamental flaw: it assumed a solar year lasted 365.25 days, when in reality, it is 365.2422 days. This led to a misalignment of about 11 minutes per year, accumulating over centuries and shifting important dates like equinoxes and religious festivals.

Mathematical Corrections in the Gregorian Calendar

Leap Year Adjustments:

A year is a leap year if divisible by 4.

If divisible by 100 but not 400, it is not a leap year.

This removes three leap years every 400 years, correcting the Julian error.

Skipping 10 Days:

The reform required jumping from October 4 to October 15, 1582, to realign the equinox.

New Mean Year Calculation:

$365+1/4-1/100+1/400=365.25$

Timekeeping and Scientific Precision

The modern calendar system has significantly contributed to scientific accuracy, playing a key role in various fields:

Astronomical Research and Observations

The Gregorian calendar helped astronomers accurately predict eclipses, planetary alignments, and celestial events. Telescope-based observations rely on precise time measurements to track cosmic movements.The study of pulsars and variable stars requires exact timekeeping, as even minor errors affect data accuracy.Radio astronomy depends on synchronised global clocks, ensuring simultaneous observations from different parts of the world.

Physics and Experimental Studies

Experiments in quantum mechanics and relativity require ultra-precision time measurements. Time-dependent studies such as radioactive decay experiments rely on standard calendars. GPS systems use atomic clocks, ensuring precision in global positioning and synchronisation.

Climatology and Earth Sciences

Climate models and weather forecasting depend on accurate historical data, which requires a stable calendar system.El Niño and La Niña cycles are tracked using long-term meteorological records, preventing misinterpretation of climate trends.Earthquake prediction models analyse historical seismic activity based on precise calendar dates.

Medical and Biological Research

Circadian rhythm studies rely on consistent time tracking, affecting research on sleep disorders, metabolism, and mental health.Clinical trials and epidemiology studies use calendar-based tracking to analyse long-term health trends. Pandemic modelling (such as COVID-19 spread analysis) depends on accurate time-series data.

Particle Physics and High-Energy Experiments

Experiments at CERN (Large Hadron Collider) require nanosecond-level synchronisation between sensors and detectors. Neutrino detection experiments depend on precise timing to analyse subatomic interactions. These scientific breakthroughs would not have been possible without a well-structured, globally accepted calendar system.

Navigation and Exploration

The accuracy of timekeeping has been critical in navigation, exploration, and trade, enabling advancements in maritime and space travel.

Maritime Navigation and Longitude Determination

Early sailors relied on celestial navigation, but without precise timekeeping, longitude calculations were inaccurate.The Marine Chronometer (invented by John Harrison in the 18th century) allowed sailors to measure time accurately and determine their position at sea.The modern calendar helped synchronise navigational charts, making global sea travel more efficient.

Expansion of Trade and Global Commerce

Standardised timekeeping enabled better coordination of trade routes, leading to economic growth.International stock exchanges and financial systems depend on precise time synchronisation.Supply chains and logistics use calendar-based tracking for shipments and deliveries.

Space Exploration and Astronomical Missions

Apollo moon landings, Mars rovers, and deep-space missions depend on precise timekeeping for accurate trajectory planning.Synchronisation of satellites and space probes (such as the Voyager and James Webb Space Telescope) relies on atomic clocks. Interplanetary timekeeping may require new calendar systems to adapt to different planetary rotations and orbits.

Aviation and Global Time Zones

The development of time zones in the 19th century standardised global travel schedules.

Modern flight navigation systems rely on GPS-linked timekeeping, ensuring accurate departure and arrival times. Air traffic control systems use highly precise timekeeping to manage flights efficiently.

Military Strategy and Communications

Modern warfare depends on synchronised operations, requiring accurate time coordination. Nuclear submarines and defence systems use precision timekeeping for mission execution. Cybersecurity and encrypted communications rely on synchronised global time standards to prevent hacking and data breaches.

Navigation and exploration have historically depended on advancements in timekeeping, proving that calendars are more than just a way to track dates—they shape global connectivity, security, and innovation.

The Future of Timekeeping and Calendar Reforms

While the Gregorian calendar remains the global standard, modern scientific advancements and space exploration are introducing new challenges that may lead to future reforms.

Leap Seconds and Atomic Timekeeping

Earth’s rotation is not perfectly consistent, leading to small variations in day length.

To compensate, scientists add or remove leap seconds to maintain synchronisation between Coordinated Universal Time (UTC) and Earth's rotation. Some experts propose eliminating leap seconds altogether, relying solely on atomic clocks for precision.

Proposed Alternative Calendar Systems

Some researchers advocate for new calendar systems that could further simplify and improve global timekeeping:

International Fixed Calendar (IFC): A 13-month calendar where each month consists of exactly 28 days, eliminating the irregularities of the current system.

World Calendar: A proposed system with equal-length quarters, simplifying financial and administrative planning.

Decimal Time: A system where days are divided into 10-hour cycles instead of 24 hours, making calculations easier for scientific use.

Interplanetary Timekeeping and Space Travel

With plans for Mars colonisation, scientists are exploring the need for a Martian calendar, as Mars has a 687-day year and a different axial tilt. Future space missions to the Moon, Europa, and beyond may require entirely new timekeeping methods adapted to local planetary conditions.Space agencies like NASA and ESA are developing synchronize timekeeping systems for deep-space communication and mission coordination.

Artificial Intelligence and Predictive Models

AI-based forecasting and simulations in climate science, finance, and epidemiology depend on precise calendar data.The integration of blockchain and quantum computing in record-keeping could lead to more advanced time-tracking methods in various industries.

The Balance Between Tradition and Modernization

Despite technological advancements, many cultures continue using traditional lunar or religious calendars, balancing heritage with modernity.Countries like Ethiopia, Iran, and North Korea still follow distinct calendar systems, highlighting the diversity of timekeeping traditions.

Some religious groups, such as the Eastern Orthodox Church, still use the Julian calendar for certain holidays.As humanity expands beyond Earth, new innovations in timekeeping will emerge, reshaping how we measure time and organise life in the cosmos.

Conclusion

The modern calendar is more than just a tool for marking days—it is a foundation for scientific precision, global coordination, and cultural traditions. Its impact on astronomy, physics, navigation, and even artificial intelligence highlights the profound role timekeeping plays in human civilisation.While the Gregorian calendar remains the dominant system, the future of timekeeping may involve new adaptations for interplanetary travel, digital synchronisation, and predictive modelling. As we continue to explore new frontiers, time will remain one of the most fundamental and evolving aspects of human progress

Applications

Scientific Research and Observations: Precise timekeeping enables accurate astronomical predictions, experimental studies, and climatology models. Navigation and Exploration: Standardised calendars improve global navigation, trade coordination, space missions, and military strategy.

Cultural and Religious Practices: Calendars shape cultural traditions, religious observances, and international holidays. Technological Innovations: Essential for AI algorithms, blockchain systems, and space-time synchronisation in advanced computing.

Limitations:

The Gregorian calendar is not universally accepted; some countries and religious groups still follow traditional systems.Leap seconds and Earth's irregular rotation pose challenges to atomic timekeeping.

Future interplanetary travel may require new calendar systems to adapt to different planetary rotations and orbits. Proposed alternatives (e.g., International Fixed Calendar, Decimal Time) face resistance due to cultural and historical attachments.

Reference

1. Pope Gregory XIII and the Calendar Reform:
   https://upload.wikimedia.org/wikipedia /commons/e/e4/Pope_Gregory_XIII.jpg
2. Julian vs. Gregorian Calendar
   https://www.timeanddate.com/calendar /difference-julian-gregorian.html
3. Leap Year Rule Infographic:
   https://www.timeanddate.com/date /leap-year.html
4. Council of Nicaea & Easter Calculation:
   https://www.britannica.com/event /Council-of-Nicaea-Christianity-325
5. Astronomical Timekeeping Advances:
   https://www.nasa.gov/image-feature /goddard/2020/hubble-space-telescope -timekeeping
6. NASA's Lunar Communications Relay and Navigation Systems (LCRNS)
   https://esc.gsfc.nasa.gov/projects/LCRNS

WANDS, WORDS AND FAME: 'HARRY POTTER' A GLOBAL ICON

- Anuja Pethe

Abstract:

The *Harry Potter* series by J.K. Rowling has gone beyond being a piece of literature to become a global phenomenon. This article delves into the reasons behind its broad impact, with special attention on its reason behind popularity, nature of narration, commercialization, and influence on the fantasy fiction genre. The success of the series is due to its universal themes, compelling narrative, and planned global marketing. First popularized by word of mouth, *Harry Potter* became a commercial giant through movie franchises, merchandise, and theme parks, cementing its place in popular culture. The phenomenon of 'Potterization' is analysed, pointing to the evolution of *Harry Potter* from a children's book series to a multi-generational cultural phenomenon. The book's depiction of social problems, including discrimination and power struggles, helped make them relevant across different audiences.

Outside literature, its influence can be seen in fan communities, online engagement, and socio-political debate. The franchise's long-term influence via streaming services, online forums, and interactive activities further solidifies its position as a long-lasting cultural phenomenon. This article tries to delve deep into finding the reasons, behind-the-scenes forces in *Harry Potter's* universal success and their impact on trends in literature and entertainment in contemporary times.

Keywords:

[Harry Potter, Globalization, Fantasy Fiction, Cultural Phenomenon, Potterization, Merchandising, Media Influence, Literary Appeal, Fandom, Commercialization]

Introduction:

Culture has always been an inevitable part of our lives. It reflects social, economic, religious, etc beliefs. These beliefs are reflected through 'Literature'. It has long been instrumental in exploring cultural narratives and international trends. As globalization led to a cross-boundary of ideas, technology, trends, etc naturally not sparing literature as well. Of the countless pieces of literature that have gone global, *Harry Potter* is one phenomenon that has crossed the shelf to become an overwhelming force in popular culture. The series is not merely a bestseller fantasy novel but an international cultural icon that has impacted several generations of readers, filmmakers, academicians, and corporate industry alike.

The series' strength lies in its strong narrative, round characters, and the common human themes of friendship, courage, and the conflict between good and evil. Yet its impact stretches far beyond books, giving rise to the term 'Potterization'—a phenomenon that sums up the series' effects on entertainment, merchandising, and media culture.

This article examines how *Harry Potter* became a cultural phenomenon across the world. Through an analysis of the reasons behind its long-term impact, this article attempts to realize how one book became a long-lasting icon of worldwide pop culture.

Main Body:

In order to realize this global phenomenon, we must look at its process chronologically,

What is Culture?

The customary beliefs, social forms, and material traits of a racial, religious, or social group are traditionally seen as 'culture'. According to Edward Burnett Tylor in his work Primitive Culture (1871) stated that culture is, "that complex whole which includes knowledge, belief, art, morals, law, custom and any other capabilities and habits acquired by man as a member of society". This means that culture is learned and not something that can be inherited. This revolutionary idea during the times when people believed in superior cultures stood against the conventions.

The nature of this meaning or the definition of culture broadened. It became more dynamic and adaptive. The shift from viewing culture as an inherited trait to an adaptive and evolving system was influenced by various socio-political and technological developments.

In contemporary thought, culture is no longer considered a rigid set of traditions but rather a flexible and evolving system influenced by the test of time. Culture changes and reshapes itself with time to withstand the changing human nature. It is actively developed by individuals within the society and is modelled in the context of contemporary beliefs and morals. A modern perspective on culture highlights shared patterns of behaviour and social interactions which are learned through socialization. These shared behaviours set apart members of a cultural group from others. Hence, focusing on the aspect of the influence of external factors over learned behaviours in a society.

How does Culture transform into Global Culture?

The concept of global culture has gained importance with the rise of advancements in communication technology in the last few decades.

Global culture encompasses shared experiences, values, norms, and practices that transcend national boundaries, fostering a sense of interconnectedness among people worldwide.

Cultural globalization is a phenomenon by which the experience of everyday life is influenced by the diffusion of commodities and ideas along with the standardization of cultural expressions around the world. With the efficiency of wireless communications, popular culture, and international travel, globalization has been seen as a trend toward homogeneity that will eventually make the human experience everywhere essentially the same.

Anthropologist ArjunAppadurai states five dimensions of global cultural flows that contribute to the development of global culture:

1. **Ethnoscapes:** The movement of people across borders, including tourists, immigrants, refugees, and expatriates, facilitates cultural exchange and the blending of traditions.

2. **Technoscapes:** The global spread of technology enables the rapid dissemination of cultural products and ideas, bridging geographical distances.

3. **Financescapes:** The flow of capital and economic activities across countries influences cultural consumption patterns and lifestyles.

4. **Mediascapes:** The distribution of information and images through media channels shapes perceptions and cultural narratives worldwide.

5. **Ideoscapes:** The spread of political ideas and ideologies across borders impacts cultural values and social norms.

This leads us to our main question…when does culture truly become global? What are the parameters for the same? And, what can be recognized as a global culture?

Several factors decide whether a cultural aspect becomes global. One of the most important is the adoption across a broad spectrum, where cultural products or practices are adopted by various groups across the globe. Sports such as soccer and food such as pizza and sushi are examples of this. Another important factor is cross-border influence, where cultural aspects go beyond their point of origin and affect societies outside their home territory. The international popularity of hip-hop fashion and music is a good example of this phenomenon. Technological spreading also comes into play; as contemporary communication technologies allow for the instant propagation of cultural content. The internet and social networks provide a means of worldwide distribution of cultural symbols, memes, and works of art, making them accessible to international audiences. Economic integration also helps to diffuse this process, as multinational companies and international trade standardize goods and services across regions. Fast-food chains, high-end brands, and international media franchises are examples of this process of establishing uniform consumer experiences. Finally, migration and mobility enable cultural exchange to thrive, resulting in the blending of traditions and the creation of multicultural societies. As individuals cross borders, they carry their habits, food, and languages along with them,making the cultural scene of the world richer.

Now that we understand culture and how it expands globally, let us take a look at the Literary work that became a global phenomenon.

Every child has their step towards literature through storytelling in their initial stages of life. It is the curiosity and thirst to learn something new that makes a person explore literature. There are some works written which are fantastical and yet somehow relatable. While trying to look for such a work it could be observed in the thesis of Ms.Sonali Patel and her work on the aspect of ‘Potterization’. The thesis beautifully explained the impact of a series and its transformation into a global phenomenon.

Harry Potter is an orphan who has no choice but to live with his, “muggle” (nonwizard) aunt and uncle in their typical suburban London neighbourhood, a boxy house at number 4 Privet Drive. On his 11th birthday, Harry finds out that he is a wizard, a world far from similar. The series consists of seven books, each describing one year of Harry’s life at Hogwarts School of Witchcraft and Wizardry. With the eventual progression, one can find that the life of Harry Potter is far from peaceful as he is forced to face the evil lord, ‘Voldemort’. With each book, the audience is exposed to the battles Harry faces along with his development from childhood to adulthood.

The grand level of the literary work’s reach can be seen through the statistics of its sales at, 300 million books sold in over 200 countries in 60 languages. Furthermore, the sixth book sold over 4 million copies on the first day of sales, totalling 7.2 million in the US alone in 2005, making it the number one selling book in the United States. Based on the volume of books sold, the text translates into a value of $1900 per word. Beyond book sales, the movies alone have grossed over $3.2 billion in box office receipts. The Harry Potter brand itself, including the books, movies, and associated merch has been valued at over $4 billion, with author J.K. Rowling's personal fortune totalling $1 billion, making her wealthier than the Queen of England. Furthermore, the popularity of Harry Potter has influenced corporations such as Coca-Cola, Warner Brothers, Apple, Mattel, Time Warner, and other international giants to invest millions of dollars to promote Harry Potter in some form.

(see Exhibit A)

The Harry Potter series by J.K. Rowling is not limited to the realm of literature but has become a dominant force in global culture. The thesis provided a structured analysis of how the Harry Potter series transitioned from a book series into a global cultural and economic phenomenon. Here, we will be focusing on and analyse based on four key aspects in this article. They are:

(1) How did Harry Potter become a global culture?

(2) The nature of the books and their audience and alongside factors contributing to their popularity.

(3) The influence of the fantasy fiction genre in shaping contemporary literature and entertainment.

(4) Examples of Harry Potter's presence in global culture, such as theme parks, merchandise, and film adaptations.

1. Harry Potter as a Global Culture

The concept of 'Harry Potterization' reflects how the *Harry Potter* series evolved into a multi-dimensional culture. It changed form from a children's book series to become an all-age target group.

This transition posed two main questions as in the paper.

1) What was the exact moment when it achieved its popularity?

2) How was the popularity retained?

The initial stage spanning from 1997 to 2000, was characterized by organic popularity. *Harry Potter and the Philosopher's Stone* gained popularity through word-of-mouth as young readers shared their enthusiasm for the book. This growth was fuelled by the novel's engaging narrative, relatable characters, and an immersive world that is so much different yet so much alike. Schools, libraries, and book clubs further contributed to this momentum, making *Harry Potter* a beloved cultural aspect even before significant commercial strategies were put in place.

Phase Two, starting from 2000, was towards mass commercialization. This time saw the association of big promotion campaigns, sponsorship by corporate partners, and above all, production of the novels into blockbuster hits. Warner Bros bought up the movie rights, and with the first feature film released in 2001, Harry Potter reached an even broader international clientele. The film conversions made the show even more attractive, drawing consumers who had previously not read the books. The era also welcomed the growth of the franchise through merchandise, amusement parks, games, and other brand experiences. The corporate associations contributed significantly toward establishing Harry Potter as a consumer powerhouse, projecting its image throughout popular culture.

2. The Nature of the Books and Their Audience

The Literary Appeal –

The use of narrative strategies contributed significantly to the popularity of the series. The books balance fantasy, adventure, and mystery with British boarding school conventions to provide a stimulating and absorbing reading experience. This creates a fluid world consisting of both, the world of wizards and the real world. Also, the genres of good versus evil, finding oneself, and friendship are widely appealing to reach beyond the audience of children and teenagers to involve adults as well. Rowling shows discrimination existing within the world of wizards as it exists in our world. The discrimination between *mudbloods*(wizards/witches born to muggles or non-wizard parents), *half-bloods* (with one parent being a witch/wizard), and *purebloods* (having both magic parents). This portrayal seems a comment on the contemporary division in society. She has even carefully portrayed all three divisions through three main characters, *Hermione, Ron,* and *Harry* respectively, proving the importance of working together.

Harry Potter satisfies basic human needs for fantasy, escape, and moral certainty. Children identify with Harry as an underdog hero who triumphs over adversity, whereas adults enjoy the complexity of the plot, the nostalgic aspects, as well as the cross-generational themes inherent in the narrative. Scholars have contended that the books are appealing to childhood fantasies of rebellion, justice, and inclusion, which are then further enhanced across the various age brackets.

Globalization and the Degrading State of Publishing-

One of the reasons behind the phenomenon is the condition of the publishing industry in the late 1990s. Children's literature collapsed, and Harry Potter became a rescuing force. The planned release of each book, combined with Rowling's compelling narrative, gave the publishing industry a much-needed boost. In addition, globalization allowed the series to spread quickly across various nations. The novels were translated into more than 60 languages, which allowed the series to find an audience in various cultures around the world. Being able to appeal to various cultures and yet keep a universal attraction is a hallmark of Harry Potter's globalization.

Promotions helped establish the series as an icon of culture. The presentation of an 'adult-friendly' cover design to the books opened the doors to readers above twenty years without censure from society, widening the readership circle even more. The later addition of films and merchandise cemented the presence of the narrative within popular culture to ensure fan interests globally continued unrelenting.

3. The Impact of Fantasy Fiction on the World

According to a paper authored by Dr.PrabhaParmar and AyushiGauravDoval- Rowling's accomplishment not only changed the face of Young Adult (YA) fantasy fiction but also established a standard for what was to come. Her skilled narratives, well-rounded characters, and complex plots opened a blank canvas for others to explore in the field. Works like Rick Riordan's Percy Jackson and Suzanne Collins' The Hunger Games stand as witness to this influence, as they present young protagonists who encounter extraordinary challenges in richly detailed worlds. The film adaptation of these series was also a part of this influence. Further, the influence of Rowling's books extends to the publishing world which has been trying to find out more about and emulate engaging fantasy series for younger readers. The result has been a wide variety of stories attuned to the life and times of today's youth. The combination of universal language and saga-like storytelling within these books has been a formula that has been emulated by many writers, stimulating them to weave their own captivating stories. This way, Harry Potter's influence continues to impact the future of fantasy books. Additionally, the Harry Potter series has played a role in reshaping the perception of fantasy literature. Previously, fantasy books were often dismissed as niche genres catering to a limited audience. However, the widespread success of Harry Potter demonstrated that fantasy narratives could appeal to mainstream readers, thereby legitimizing the genre in academic and literary circles.

The influence extends beyond literature into broader societal trends. The series has inspired fan-driven activism, educational initiatives, and discussions on social issues such as equality, discrimination, and political resistance. The themes of oppression, authoritarianism, and rebellion against injustice in the books have led to real-world conversations about governance, power dynamics, and ethical responsibility.

4. Examples of Harry Potter as a Global Culture

Theme Parks and Attractions

The development of The Wizarding World of Harry Potter at Universal Studios is perhaps the most concrete manifestation of the franchise's influence on popular culture. These theme parks simulate places from the books, including Hogwarts Castle, Diagon Alley, and Hogsmeade, where fans can experience the magic. The parks welcome millions of visitors each year, illustrating the long-term popularity of the Harry Potter world.

(See Exhibit B)

Merchandise and Consumer Products

The Harry Potter commercialization has led to a huge variety of merchandise, ranging from action figures, clothing, and accessories to stationery and board games. Mattel, Hasbro, and LEGO are some of the companies that have taken advantage of the popularity of the brand by creating themed products, further integrating Harry Potter into daily life.

(See Exhibit C)

Movie Adaptations and Streaming

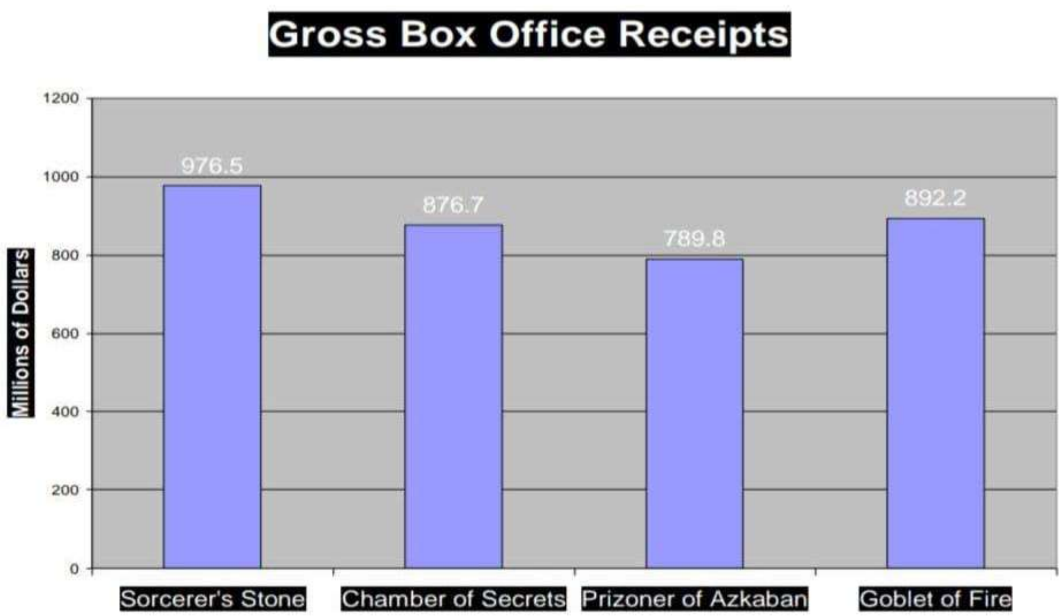
Warner Bros' film interpretations played a large role in ensuring the popularity of the series continued. The movies brought the series to a mass audience, validating the aesthetics and themes of the books. Today's digital landscape has continued Harry Potter's wide appeal, with streaming services ensuring easy access to generations of fans going forward.

(See Exhibit D)

Fan Communities and Digital Engagement

The internet has been a major factor in maintaining Harry Potter's cultural supremacy. Sites like MuggleNet, The Leaky Cauldron, and Pottermore (now Wizarding World) have given fans spaces to discuss, speculate, and interact. The creation of online quizzes, interactive fiction, and social media campaigns has ensured that the franchise remains current in the digital era.

Exhibit A



Source: IMDB.com

Exhibit B

Exhibit C

Exhibit D

Conclusion

This article provides a pathway towards exploration of the mechanisms behind Harry Potter's cultural ascension. The franchise's success is a product of effective marketing, strategic timing, literary appeal, and the evolving global media landscape. The impact of Harry Potter on the fantasy fiction genre, culture, and media is undeniable. As long as fans continue to engage with the world of Harry Potter through literature, cinema, merchandise, and interactive experiences, the phenomenon of 'Harry Potterization' will remain a significant aspect of global culture.

References:

- Patel, S., Stern, L., Subrahmanyam, M., & Allen, W. (2006).*Theory and Evidence. Harry Potterization: The Global Phenomenon Explained by*. https://www.stern.nyu.edu/sites/default/files/assets/documents/con_043282.pdf
- KatarzynaSzczepańska, &Kosiorek, D. (2017).Factors influencing organizational culture.*Scientific Papers of Silesian University of Technology Organization and Management Series*, *2017*(100), 457–468. https://doi.org/10.29119/1641-3466.2017.100.34

- Watson, J. L. (2002, May 17).*Cultural globalization | Pros, Cons, Examples, Impact, & Factors*.Encyclopaedia Britannica.https://www.britannica.com/science/cultural-globalization
- Carron, A. (2019, May 13). *The Magical Harry Potter Brand Partnerships [Infographic]*. Hollywoodbranded.com; Hollywood Branded. https://blog.hollywoodbranded.com/the-magical-harry-potter-brand-partnerships-infographic?utm_source=chatgpt.com
- Pottermore.(2018, February).*500 million Harry Potter books have now been sold worldwide | Wizarding World*. Harrypotter.com; Wizarding World Digital.https://www.harrypotter.com/news/500-million-harry-potter-books-have-now-been-sold-worldwide?utm_source=chatgpt.com
- *The Harry Potter Novels – Harry Potter Lexicon*. (2015, October 13). Harry Potter Lexicon; The Harry Potter Lexicon. https://www.hp-lexicon.org/source/the-harry-potter-novels/
- Parmar, P., &Doval, A. G. (2024). ENCHANTING REALMS: THE IMPACT OF J.K. ROWLING ON MODERN FANTASY LITERATURE. *ShodhKosh: Journal of Visual and Performing Arts*, *5*(1). https://doi.org/10.29121/shodhkosh.v5.i1.2024.3730